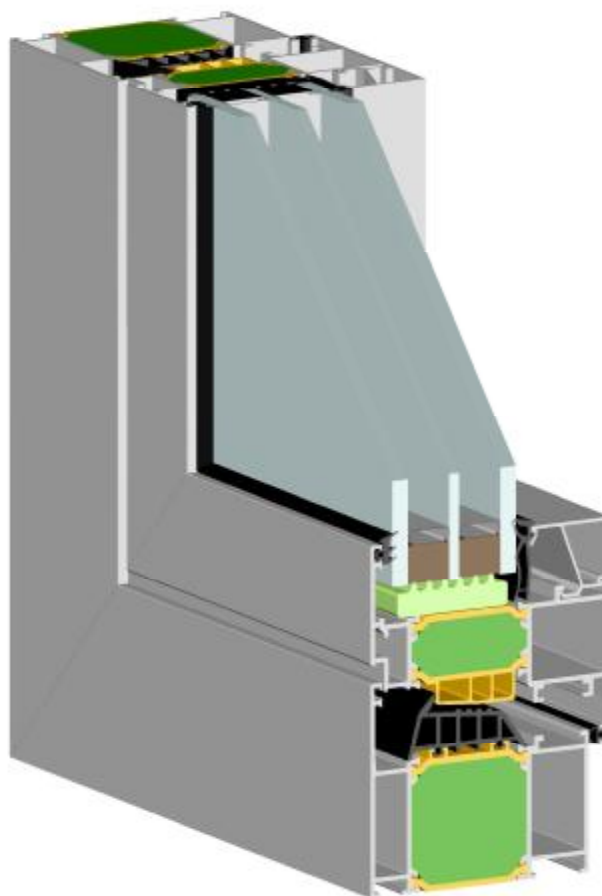


# FEAL

FEAL d.o.o za preradu aluminija-Široki Brijeg, Trnska cesta 146



Serijski **TERMO 85 S plus**



» FEAL « d.o.o.

Trnska cesta 146, 88220 Široki Brijeg, BiH  
Telefoni: ++ 387 39 704-269, 704-507, 705-807 ;  
705-636, 704-325 , Fax: 704-358  
E-mail: [info@feal.ba](mailto:info@feal.ba) ; [www.feal.ba](http://www.feal.ba)

LAB-12      P O D U Z E Ć E   Z A   P R E R A D U   A L U M I N I J A

Simulation software: WinIso2D 7.50

Date: 11.12.2012

File: C:\Users\marko.novak\Desktop\termo 85 S Plus s novim xps-om.f2d

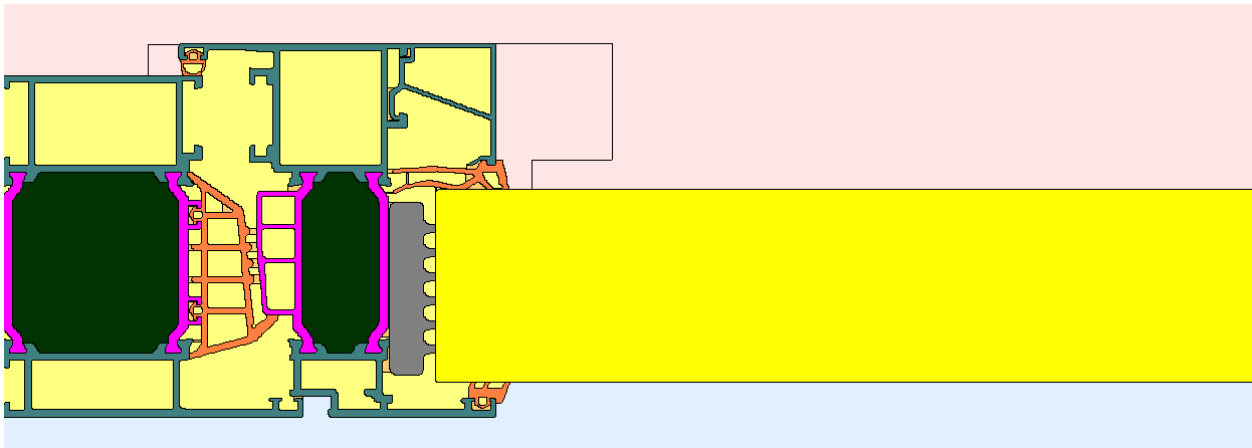


Calculation of the thermal transmission coefficient  $U_f$  according to EN ISO 10077-2:2003-12

Simulation model:

Dimensions (width x height): 312,48 x 111,21 mm

Number of elements in simulation model: X-direction: 598; Y-direction: 412



Boundary conditions:

External:

Temperature  $\Theta_e$ : 0,00 °C

Surface resistance  $R_{se}$ : 0,040 m<sup>2</sup>K/W

Internal:

Temperature  $\Theta_i$ : 20,00 °C

Surface resistance  $R_{si}$  1: 0,130 m<sup>2</sup>K/W

Surface resistance  $R_{si}$  2: 0,200 m<sup>2</sup>K/W

Results:

Temperature difference  $dT$ : 20,00 K

Total heat flow  $Q$ : 4,853 W/m

2D thermal conductance  $L_{2D}$ : 0,243 W/mK

Length top/left: 122,50 mm

**$U_f$  : 0,97 W/m<sup>2</sup>K**

Length bottom/right: 190,00 mm

U-value bottom/right: 0,649 W/m<sup>2</sup>K

PODRUŽNICA SARAJEVO , Kurta Schorke 1 Stup, Sarajevo . Tel: +387 33 460-636

PODRUŽNICA BANJA LUKA , B.Popovića 115 Banja Luka Tel : +387 51 371-401, Fax: +387 51 371-410

Transakcijsku račun : Zagrebačka banka BH d.d.Mostar: 3382202200262117; Hypo Alpe-Adria Bank d.d.Mostar: 3060280000015282;

HVB Bank BiH d.d. Sarajevo: 1420000310040038; Županijski sud Široki Brijeg U/I-00216/88; Identifikacijski broj : 4272031910000



# » F E A L « d.o.o.

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Telefoni: ++ 387 39 704-269, 704-507, 705-807 ;  
705-636, 704-325 , Fax: 704-358  
E-mail: [info@feal.ba](mailto:info@feal.ba) ; [www.feal.ba](http://www.feal.ba)

## LAB-12 P O D U Z E Ć E Z A P R E R A D U A L U M I N I J A

### Materials:

Material	R (m <sup>2</sup> K/W)	T (°C)	Q(gesamt ) (W/m)	10077 konfor m
****ADIABAT****	0,000	0,000	0,000	
1 boundary condition inside 0,13, 20°C, 50%	0,130	20,000	4,234	X
1 boundary condition outside 0,04, 0°C, 80%	0,040	0,000	-4,852	X
1 boundary condition inside 0,20, 20°C, 50%	0,200	20,000	0,621	X
1 air EN ISO 10077-2 (cavities in profiles)				X
1 air EN ISO 10077-2 (cavities in profiles <=2mm)				X

Material	L (W/mK)	Mue	Emiss	10077 konfor m
Aluminium alloy painted	160,000	1	0,900	-
Calibration Panel EN ISO 10077-2	0,035	1	0,900	-
alfapro (ABS)	0,125	50000	0,900	-
PPE	0,038	1	0,900	-
ALFAPRENE (TPE)	0,132	1	0,900	-
XPS (Thickness up to 60 mm)	0,034	1	0,900	-



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E-mail: [info@feal.ba](mailto:info@feal.ba) ; [www.feal.ba](http://www.feal.ba)

LAB-11 PODUZEĆE ZA PRERADU ALUMINIJA

Simulation software: WinIso2D 7.50

Date: 13.12.2012

File: C:\Users\marko.novak\Desktop\prozor u fasadi.f2d

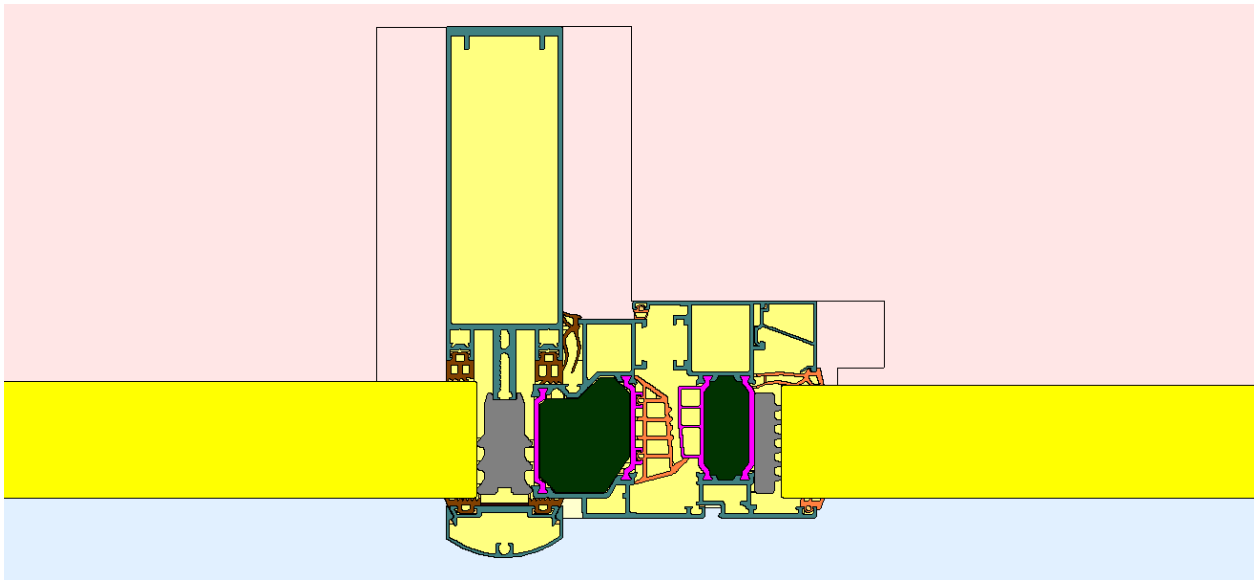


Calculation of the thermal transmission coefficient  $U_f$  according to EN ISO 10077-2:2003-12

Simulation model:

Dimensions (width x height): 539,09 x 247,58 mm

Number of elements in simulation model: X-direction: 783; Y-direction: 548



Boundary conditions:

External:

Temperature  $\Theta_e$ : 0,00 °C

Surface resistance  $R_{se}$ : 0,040 m<sup>2</sup>K/W

Internal:

Temperature  $\Theta_i$ : 20,00 °C

Surface resistance  $R_{si}$  1: 0,130 m<sup>2</sup>K/W

Surface resistance  $R_{si}$  2: 0,200 m<sup>2</sup>K/W

Results:

Temperature difference  $dT$ : 20,00 K

Total heat flow  $Q$ : 8,102 W/m

2D thermal conductance  $L_{2D}$ : 0,405 W/mK

Length top/left: 159,00 mm

**$U_f$  : 1.0 W/m<sup>2</sup>K**

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PODRUŽNICA BANJA LUKA , B.Popovića 115 Banja Luka Tel : +387 51 371-401, Fax: +387 51 371-410

Transakcijsku račun : Zagrebačka banka BH d.d.Mostar: 3382202200262117; Hypo Alpe-Adria Bank d.d.Mostar: 3060280000015282;

HVB Bank BiH d.d. Sarajevo: 1420000310040038; Županijski sud Široki Brijeg U/I-00216/88; Identifikacijski broj : 4272031910000



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705-636, 704-325 , Fax: 704-358  
E-mail: [info@feal.ba](mailto:info@feal.ba) ; [www.feal.ba](http://www.feal.ba)

LAB-11 PODUZEĆE ZA PRERADU ALUMINIJA

Length bottom/right: 380,00 mm  
U-value bottom/right: 0,649 W/m<sup>2</sup>K

Materials:

Material	R (m <sub>c</sub> K/W)	T (°C)	Q(gesamt) (W/m)	10077 konfor m
****ADIABAT****	0,000	0,000	0,000	
1 boundary condition inside 0,13, 20°C, 50%	0,130	20,000	5,792	X
1 boundary condition outside 0,04, 0°C, 80%	0,040	0,000	-8,101	X
1 boundary condition inside 0,20, 20°C, 50%	0,200	20,000	2,310	X
1 air EN ISO 10077-2 (cavities in profiles)				X
1 air EN ISO 10077-2 (cavities in profiles <=2mm)				X
1 air EN ISO 10077-2 (cavities in profiles, sparse ventilated)				X
Material	L (W/mK)	Mue	Emiss	10077 konfor m
Aluminium alloy painted	160,000	1	0,900	-
Calibration Panel EN ISO 10077-2	0,035	1	0,900	-
alfapro (ABS)	0,125	50000	0,900	-
PPE	0,038	1	0,900	-
ALFAPRENE (TPE)	0,132	1	0,900	-
XPS (Thickness up to 60 mm)	0,034	1	0,900	-
Ethylene Propylene Diene Monomer (EPDM)	0,250	1	0,900	-
Butyl Rubber (Isobutylene- isoprene rubber) hard/hot melted	0,240	1	0,900	-

Osoba zadužena za proračun:  
Marko Novak



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Building Physics Laboratory  
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www.igh.hr



Nalog za ispitivanje: 13/13  
RN 72160804

Zagreb, 2013-02-06

## IZVJEŠTAJ O ISPITIVANJU BR. 2160-021/13

Naručitelj: FEAL Hrvatska d.o.o.  
Rudeška cesta 3a, HR-10000 Zagreb

Ugovor/narudžba: ponuda 61060-0-0085/13 od 2013-01-23 i narudžbenica od 2013-01-30

Građevni proizvod: Jednokrilni aluminijski prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom 48 mm

Proizvođač: FEAL d.o.o.  
Trnska cesta 146, BA-88220 Široki Brijeg, Bosna i Hercegovina


Datum zaprimanja uzoraka: 2013-01-29

Mjesto ispitivanja: Institut IGH d.d.  
Zavod za materijale i konstrukcije  
Laboratorij IGH  
Laboratorij za građevinsku fiziku  
Janka Rakuše 1, HR-10000 Zagreb

Laboratorijska oznaka uzorka: LGF 022/13

Ispitana svojstva: A dio: zrakopropusnost  
B dio: vodonepropusnost  
C dio: otpornost na opterećenje vjetrom

Odgovorna osoba:

  
Tomislav Vučić, dipl. ing. sig.



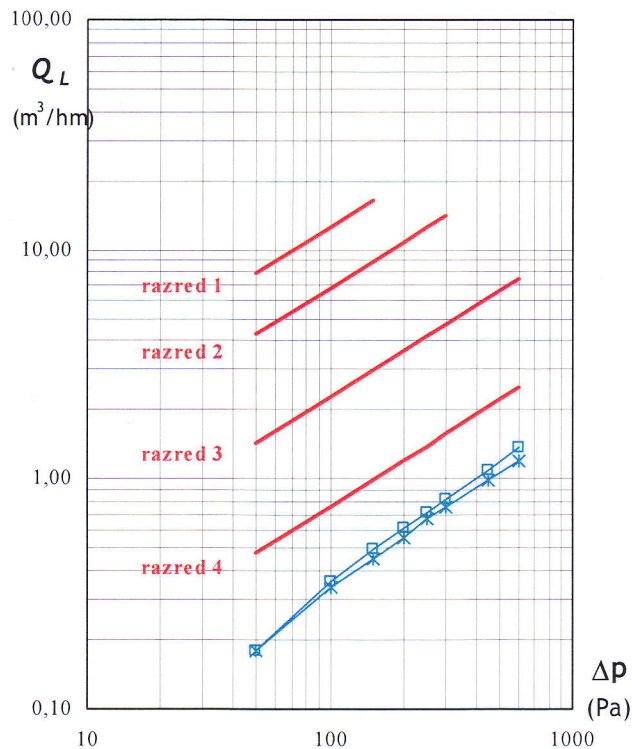
Voditelj laboratorija:

  
dr. sc. Ivica Kušević, dipl. ing. fizike

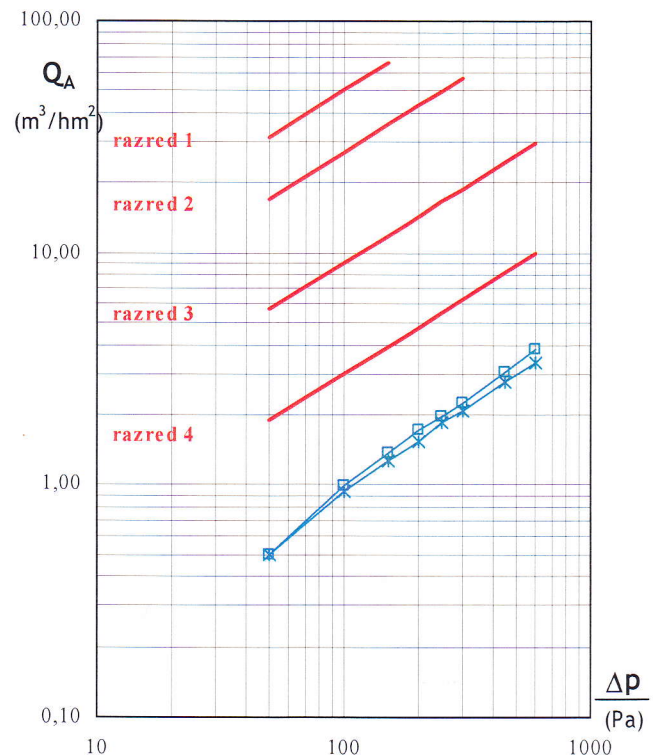
Laboratorij za građevinsku fiziku akreditiran je od Hrvatske akreditacijske agencije (HAA) prema zahtjevima norme HRN EN ISO/IEC 17025 za ispitivanja toplinsko-izolacijskih proizvoda za primjenu u graditeljstvu, izabranih ispitivanja: građevnih materijala i proizvoda s obzirom na toplinu, vlagu i akustička svojstva, toplinskih značajki zgrada, svojstava prozora i vrata, boja i lakova, te građevnih materijala i elemenata u požaru, prema Prilogu potvrde o akreditaciji br. 1033. Institut IGH d.d., Zagreb, ovlašten je od Ministarstva zaštite okoliša, prostornog uređenja i graditeljstva Republike Hrvatske za radnje ispitivanja prozora i vrata, evidencijski broj 1/05, ovlaštenje klasa: UP/1 360-01/11-08/41, urbroj: 531-01-12-6 od 11. svibnja 2012.

Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pisanog odobrenja Voditelja laboratorija. Ukupan broj stranica 9. Test results refer only to the tested specimens. Partial copying of this report is not permitted without a written authorization of the Head of the Laboratory. No. of text pages: 9.

Izveštaj broj: 2160-021/13



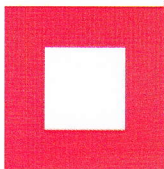
- LGF 022/13 - prvo ispitivanje zrakopropusnosti
- \*— LGF 022/13 - ispitivanje zrakopropusnosti nakon ispitivanja otpornosti na opterećenje vjetrom



- LGF 022/13 - prvo ispitivanje zrakopropusnosti
- \*— LGF 022/13 - ispitivanje zrakopropusnosti nakon ispitivanja otpornosti na opterećenje vjetrom

### ZAKLJUČAK UZ A DIO IZVJEŠTAJA

S obzirom na **zrakopropusnost**, ispitani jednokrilni aluminijski otklopno-zaokretni prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom debljine 48 mm, proizvođača FEAL d.o.o. iz Širokog Brijega (laboratorijska oznaka uzorka LGF 022/13), može se prema HRN EN 12207:2001 svrstati u **razred 4**.



Izveštaj broj: 2160-021/13

## B DIO: VODONEPROPUSNOST

Zadatak: Ispitati svojstvo vodonepropusnosti ispitnog uzorka LGF 022/13 (jednokrlni aluminijski otklopno-zaokretni prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom debljine 48 mm) vanjskih izmjera 1,23 m x 1,48 m.

Ispitano prema normi: HRN EN 1027:2001, Metoda 1A

Datum ispitivanja: 2013-02-05

Temperatura, relativna vlažnost zraka i atmosferski tlak tijekom ispitivanja: 21,5 °C, 44 % i 1000 hPa.

### Mjerna i ispitna oprema:

- uređaj za ispitivanje prozora proizvođača HOLTEN, tip "Type VAEPIC", oznaka mjerila 1674,
- termohigrometar, ROTRONIC, tip Hygroclip S, oznaka mjerila 1679,
- metalni metar.

Rezultati ispitivanja vodonepropusnosti prikazani su tablicom 3.

Oznaka „+“ označuje da nije došlo do propuštanja vode pri navedenoj razlici tlaka, oznaka „∇“ označuje propuštanja vode pri navedenoj razlici tlaka, a oznaka „/“ označuje da ispitivanje kod navedene razlike tlaka nije provedeno.

Tablica 3: rezultati ispitivanja vodonepropusnosti (LGF 022/13):

tlak $\Delta p$ (Pa)	vrijeme $\tau$ (min)	ispitni rezultat	razred (prema HRN EN 12208:2001)
0	15	+	1 A
50	5	+	2 A
100	5	+	3 A
150	5	+	4 A
200	5	+	5 A
250	5	+	6 A
300	5	+	7 A
450	5	+	8 A
600	5	+	9 A

Tijekom ispitivanja u skladu s HRN EN 1027:2001, u rasponu natisnog tlaka od 0 Pa do 600 Pa (pozitivno opterećenje), jednokrlni aluminijski otklopno-zaokretni prozor (ispitni uzorak LGF 022/13) nije propustio vodu.

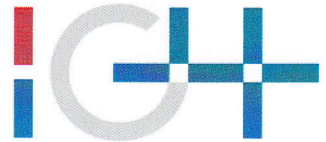
### ZAKLJUČAK UZ B DIO IZVJEŠTAJA

S obzirom na **vodonepropusnost**, ispitani jednokrlni aluminijski otklopno-zaokretni prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom debljine 48 mm, proizvođača FEAL d.o.o. iz Širokog Brijega (laboratorijska oznaka uzorka LGF 022/13), može se prema HRN EN 12208:2001 svrstati u **razred 9A**.





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www.igh.hr



Izvještaj broj: 2160-021/13

### C1.1 Vrednovanje čeonog savijanja prema HRN EN 12210:2001

S obzirom na **relativno čeonu savijanje**, ispitani jednokrlni aluminijski otklopno-zaokretni prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom debljine 48 mm, proizvođača FEAL d.o.o. iz Širokog Brijega (laboratorijska oznaka uzorka LGF 022/13), može se prema HRN EN 12210:2001 svrstati u **razred C** ( $F_{rp} < 1/300$ ), budući da je maksimalno relativno čeonu savijanje iznosilo 1/4430.

### C2. REZULTATI ISPITIVANJA OTPORNOSTI PROMJENJIVIM TLAKOM P2

Ispitivanje je provedeno s 50 impulsa promjenjivog tlaka P2 od  $\pm 600$  Pa, koji iznosi polovicu maksimalnog tlaka P1 = 1200 Pa kod ispitivanja čeonog savijanja.

Nakon provedenog opterećenja na uzorku LGF 022/13 nije bilo vidljivih oštećenja niti promjena u funkcionalnosti prozora.

### C3. REZULTATI SIGURNOSNOG ISPITIVANJA

Ispitivanje sigurnosti je provedeno s jednim impulsom od +1800 Pa.

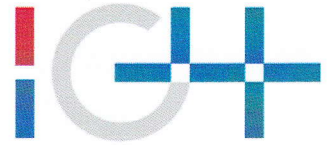
Nakon provedenog opterećenja na uzorku LGF 022/13 nije bilo vidljivih napuknuća na bilo kojem dijelu uzorka (staklo, okvir i okovi), niti je došlo do otvaranja prozora.

## ZAKLJUČAK UZ C DIO IZVJEŠTAJA

S obzirom na ispitivanje **otpornosti na opterećenje vjetrom** i ponovljeno ispitivanje zrakopropusnosti nakon ispitivanja otpornosti na opterećenje vjetrom, koje pokazuje da nije došlo do povećanja vrijednosti zrakopropusnosti većeg od 20 % u odnosu na prvo ispitivanje zrakopropusnosti, ispitani jednokrlni aluminijski otklopno-zaokretni prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom debljine 48 mm, proizvođača FEAL d.o.o. iz Širokog Brijega (laboratorijska oznaka uzorka LGF 022/13), može se prema HRN EN 12210:2001 svrstati u **razred C3**.



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www.igh.hr



Nalog za ispitivanje: 13/13  
RN 72160804

Zagreb, 2013-02-06

## IZVJEŠTAJ O ISPITIVANJU BR. 2160-021/13

Naručitelj: FEAL Hrvatska d.o.o.  
Rudeška cesta 3a, HR-10000 Zagreb

Ugovor/narudžba: ponuda 61060-0-0085/13 od 2013-01-23 i narudžbenica od 2013-01-30

Građevni proizvod: Jednokrilni aluminijski prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom 48 mm

Proizvođač: FEAL d.o.o.  
Trnska cesta 146, BA-88220 Široki Brijeg, Bosna i Hercegovina


Datum zaprimanja uzoraka: 2013-01-29

Mjesto ispitivanja: Institut IGH d.d.  
Zavod za materijale i konstrukcije  
Laboratorij IGH  
Laboratorij za građevinsku fiziku  
Janka Rakuše 1, HR-10000 Zagreb

Laboratorijska oznaka uzorka: LGF 022/13

Ispitana svojstva: A dio: zrakopropusnost  
B dio: vodonepropusnost  
C dio: otpornost na opterećenje vjetrom

Odgovorna osoba:

  
Tomislav Vučić, dipl. ing. sig.



Voditelj laboratorija:

  
dr. sc. Ivica Kušević, dipl. ing. fizike

Laboratorij za građevinsku fiziku akreditiran je od Hrvatske akreditacijske agencije (HAA) prema zahtjevima norme HRN EN ISO/IEC 17025 za ispitivanja toplinsko-izolacijskih proizvoda za primjenu u graditeljstvu, izabranih ispitivanja: građevnih materijala i proizvoda s obzirom na toplinu, vlagu i akustička svojstva, toplinskih značajki zgrada, svojstava prozora i vrata, boja i lakova, te građevnih materijala i elemenata u požaru, prema Prilogu potvrde o akreditaciji br. 1033. Institut IGH d.d., Zagreb, ovlašten je od Ministarstva zaštite okoliša, prostornog uređenja i graditeljstva Republike Hrvatske za radnje ispitivanja prozora i vrata, evidencijski broj 1/05, ovlaštenje klasa: UP/1 360-01/11-08/41, urbroj: 531-01-12-6 od 11. svibnja 2012.

Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pisanog odobrenja Voditelja laboratorija. Ukupan broj stranica 9. Test results refer only to the tested specimens. Partial copying of this report is not permitted without a written authorization of the Head of the Laboratory. No. of text pages: 9.

Izvještaj broj: 2160/022/13-056/13

Naručilac: FEAL Hrvatska d.o.o.

Proizvođač: FEAL d.o.o.

Predmet ispitivanja ugradio: djelatnici laboratorija

Građevni proizvod: jednokrilni aluminijski prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom 48 mm

Nadnevak ispitivanja: 2013-03-12

Temperatura zraka u ispitnoj prostoriji: 24,6 °C

Vlažnost zraka u ispitnoj prostoriji: 34,7 %

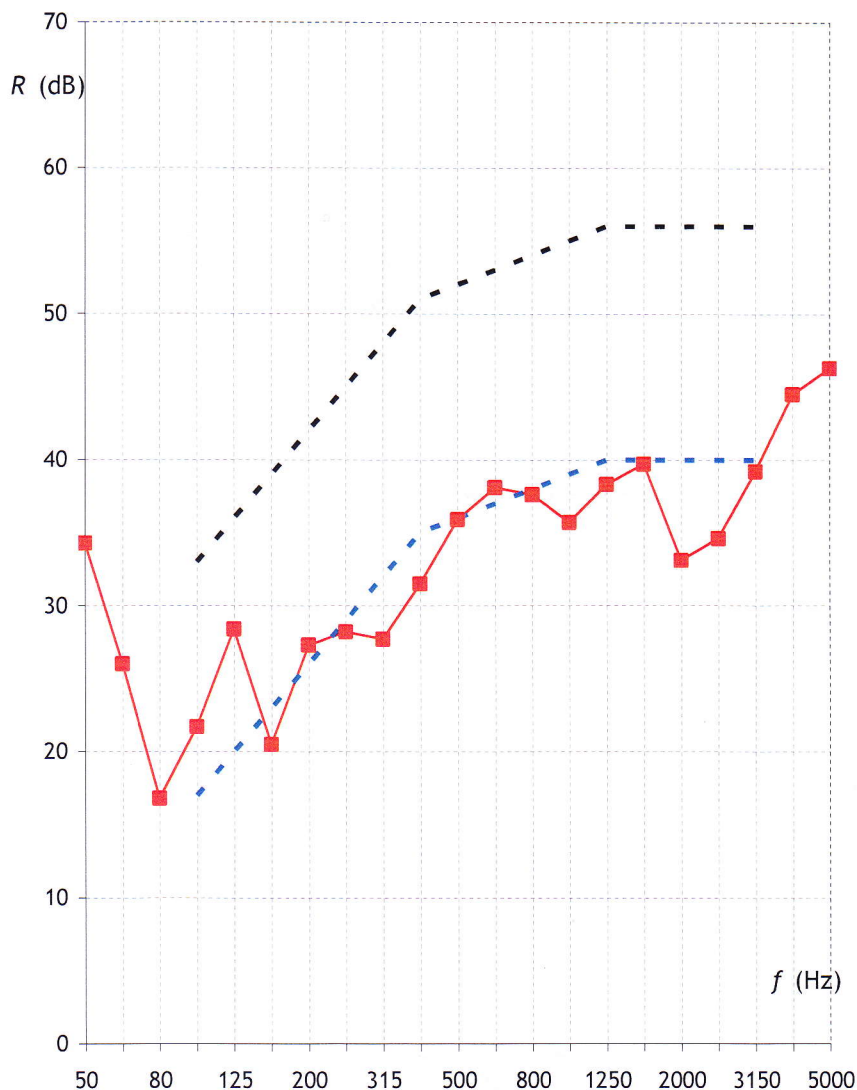
Površina S ispitivanog uzorka: 1,82 m<sup>2</sup>

—■— Indeks zvučne izolacije

- - - Referentna krivulja izolacije od zračnog zvuka, 52 dB

- - - Pomaknuta referentna krivulja izolacije od zračnog zvuka, 36 dB

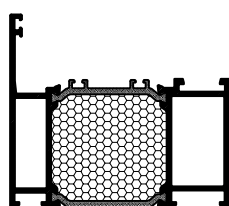
Frekvencija <i>f</i> (Hz)	Terca <i>R</i> (dB)
50	34,3
63	26
80	16,8
100	21,7
125	28,4
160	20,5
200	27,3
250	28,2
315	27,7
400	31,5
500	35,9
630	38,1
800	37,6
1000	35,7
1250	38,3
1600	39,7
2000	33,1
2500	34,6
3150	39,2
4000	44,5
5000	46,3



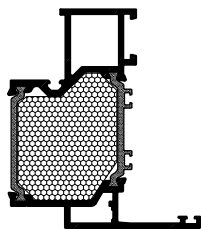
**ZAKLJUČAK:**

Ispitani jednokrilni aluminijski prozor sistem FEAL TERMO 85 S plus, ostakljen troslojnim izolacijskim staklom debljine 48 mm, proizvođača Feal d.o.o. iz Širokog Brijega, ima vrednovani indeks zvučne izolacije:

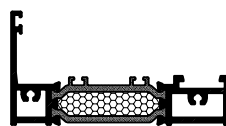
$$R_w (C; C_{tr}; C_{50-5000}; C_{tr,50-5000}) = 36 (-2; -4; -1; -5) \text{ dB.}$$



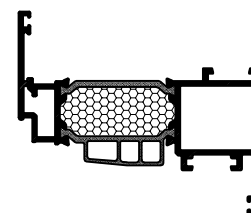
**FT-0510 H**  
kg/m 1.828



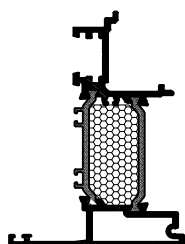
**FT-0512**  
kg/m 1.716



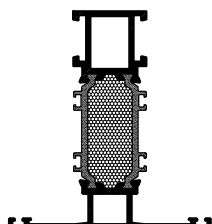
**FT-0514**  
kg/m 1.293



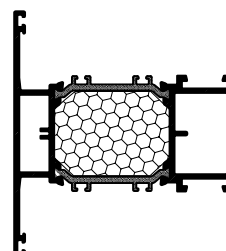
**FT-0520**  
kg/m 1.789



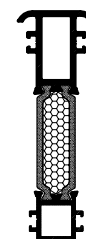
**FT-0530**  
kg/m 1.608



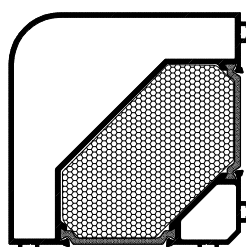
**FT-0530**  
kg/m 1.560



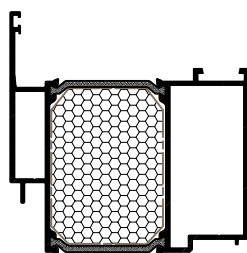
**FT-0532**  
kg/m 1.620



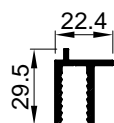
**FT-0540**  
kg/m 1.190



**FT-0542**  
kg/m 2.453



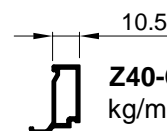
**FT-0543**  
kg/m 2.126



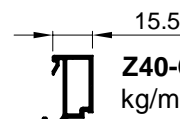
**F-1232**  
kg/m 0.405



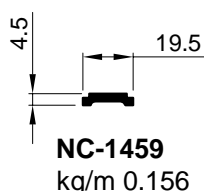
**F-1236**  
kg/m 0.257



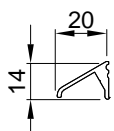
**Z40-664**  
kg/m 0.243



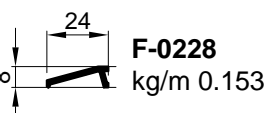
**Z40-665**  
kg/m 0.272



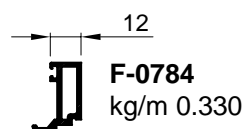
**NC-1459**  
kg/m 0.156



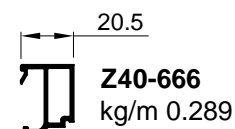
**Z40-657**  
kg/m 0.186



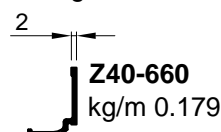
**F-0228**  
kg/m 0.153



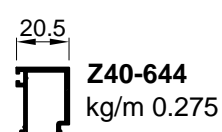
**F-0784**  
kg/m 0.330



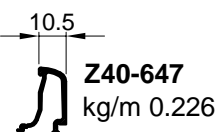
**Z40-666**  
kg/m 0.289



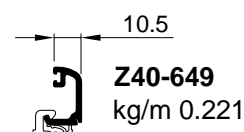
**Z40-660**  
kg/m 0.179



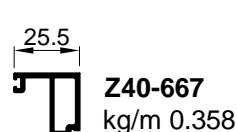
**Z40-644**  
kg/m 0.275



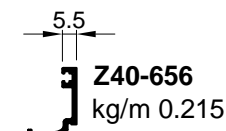
**Z40-647**  
kg/m 0.226



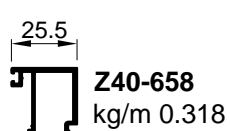
**Z40-649**  
kg/m 0.221



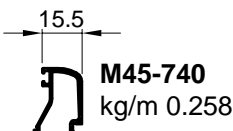
**Z40-667**  
kg/m 0.358



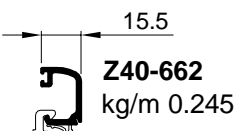
**Z40-656**  
kg/m 0.215



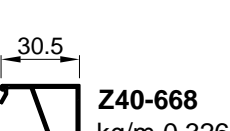
**Z40-658**  
kg/m 0.318



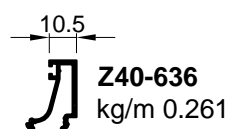
**M45-740**  
kg/m 0.258



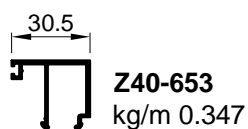
**Z40-662**  
kg/m 0.245



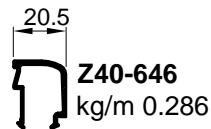
**Z40-668**  
kg/m 0.326



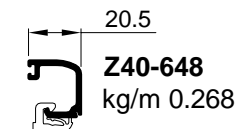
**Z40-636**  
kg/m 0.261



**Z40-653**  
kg/m 0.347



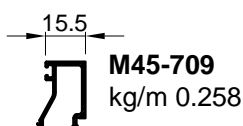
**Z40-646**  
kg/m 0.286



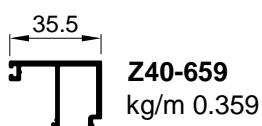
**Z40-648**  
kg/m 0.268



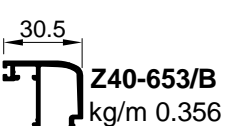
**Z40-669**  
kg/m 0.347



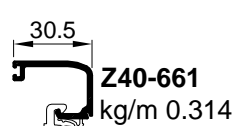
**M45-709**  
kg/m 0.258



**Z40-659**  
kg/m 0.359



**Z40-653/B**  
kg/m 0.356



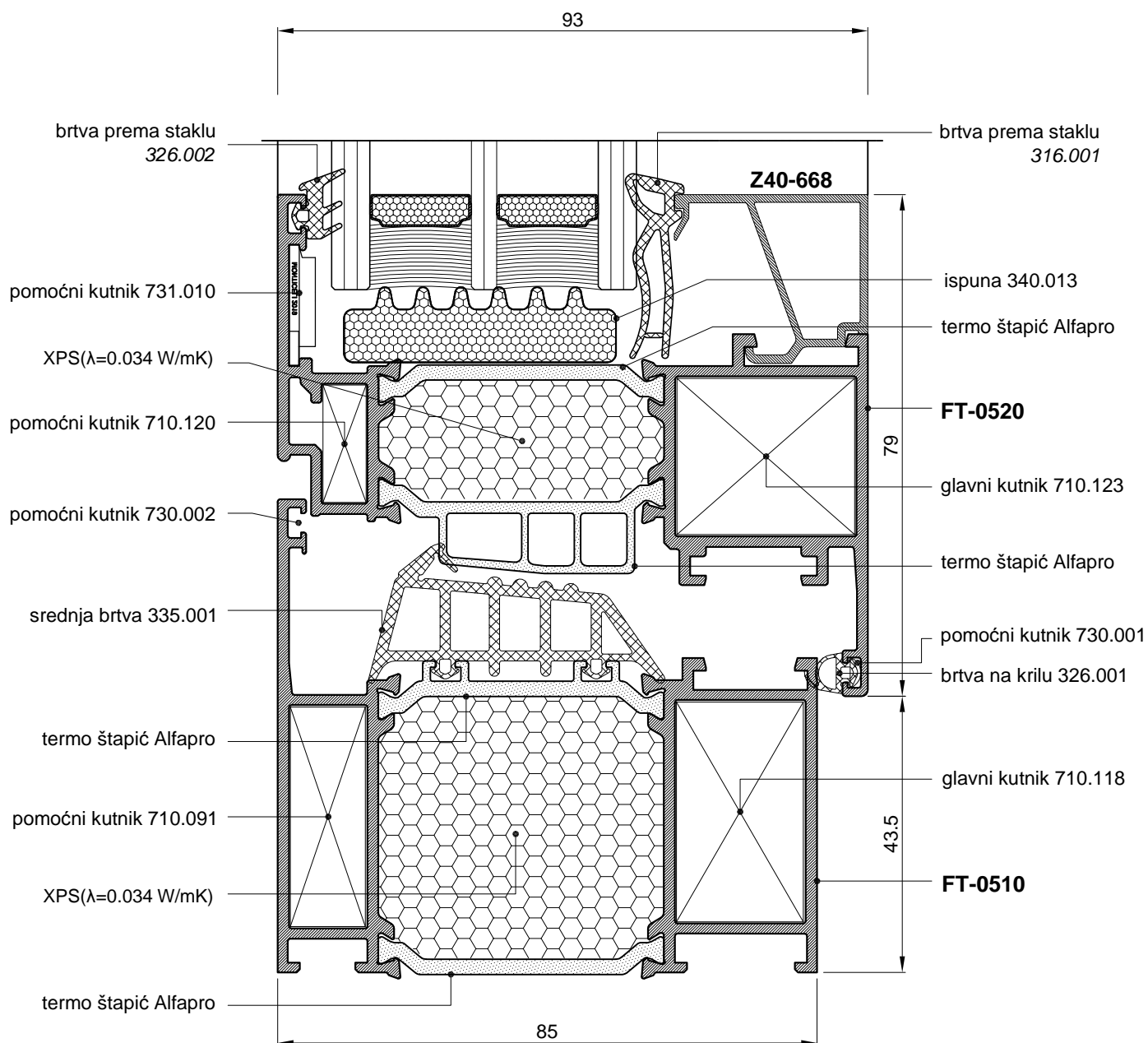
**Z40-661**  
kg/m 0.314



**Z40-670**  
kg/m 0.373


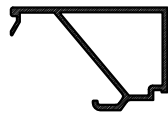
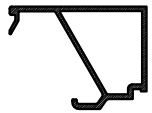

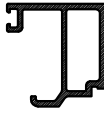




Profili iz serije Termo 85 S plus dodatno punjeni termoizolacijskim materijalom

- ispunjena je od materijala s malim koeficijentom vodljivosti topline  $\lambda$  /veliki otpor prolaza topline/  
materijal: **XPS**,  $\lambda=0.034$  W/mK
- koeficijent prolaza topline  $U_f=0.97$  W/m<sup>2</sup>K

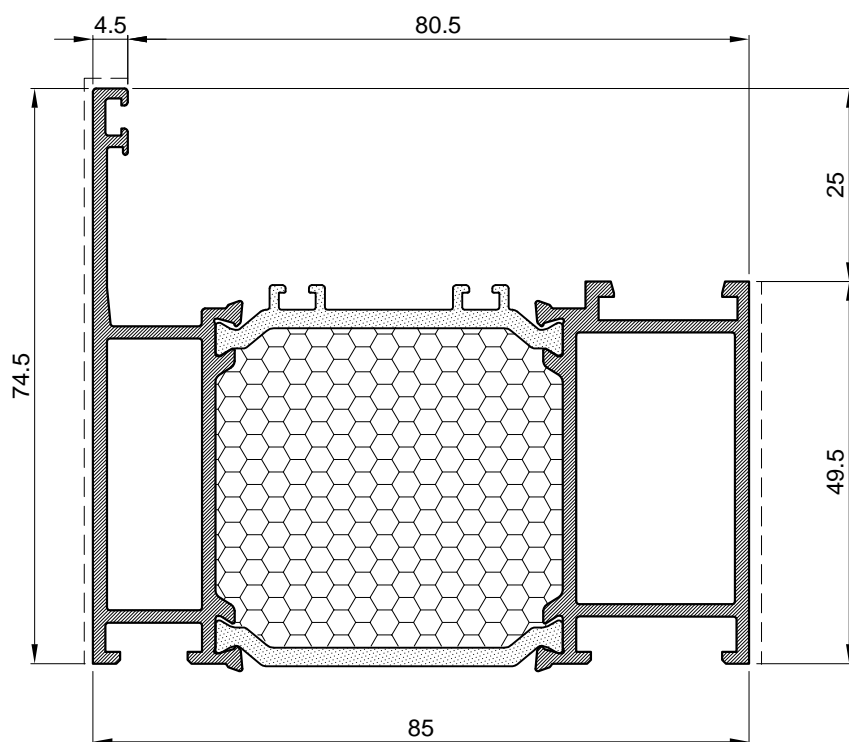


Oznaka		Izgled-presjek	Težina /kg/ml/	Opseg /mm/	$I_x / \text{cm}^4$	$W_x / \text{cm}^3$
					$I_y / \text{cm}^4$	$W_y / \text{cm}^3$
FT-0510			1.828	431	21.04	4.56
					63.73	13.82
FT-0512			1,716	409.90	37.03	10.63
					14.63	3.43
FT-0514			1,293	334.21	3.52	1.13
					40.84	8.84
FT-0520			1.789	459.28	13.39	3.59
					71.22	14.39
FT-0530			1.608	457.57	35.16	8.47
					11.07	2.83
FT-0531			1.560	472.51	36.96	10.46
					10.32	2.65
FT-0532			1.620	508.06	66.46	13.80
					23.15	4.87
FT-0540			1.190	308.71	27.57	7.58
					1.6	1.08

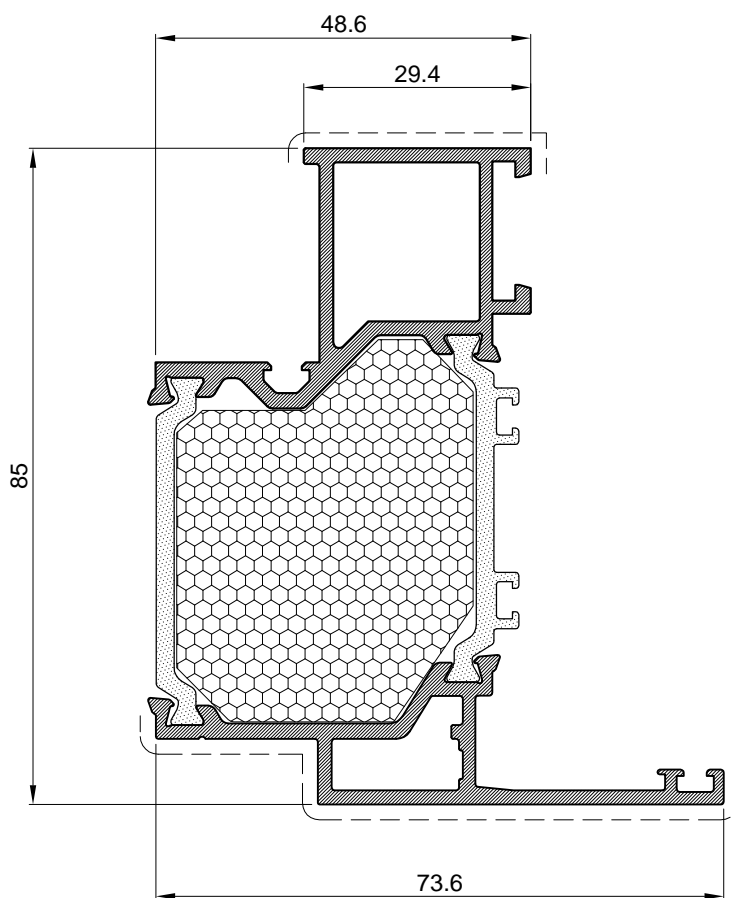
Oznaka		Izgled-presjek	Težina /kg/ml/	Opseg /mm/	$I_x / \text{cm}^4$	$W_x / \text{cm}^3$
					$I_y / \text{cm}^4$	$W_y / \text{cm}^3$
FT-0542			2.453	412.27	80.33	18.56
					88.39	18.56
FT-0543			2.126	439.74	42.05	8.0
					85.58	17.27
F-1232			0.405	153.49	0.9863	0.622
					0.6429	0.457
F-1236			0.257	113.25	0.1058	0.130
					0.6413	0.368
Z40-657			0.186	73.0		
F-0228			0.153	68.0		
NC-1459			0.156	51.0		

Oznaka		Izgled-presjek	Težina /kg/ml/	Opseg /mm/	$I_x / \text{cm}^4$	$W_x / \text{cm}^3$
					$I_y / \text{cm}^4$	$W_y / \text{cm}^3$
Z40-670			0.373	150.14		
Z40-669			0.347	143.0		
Z40-668			0.326	135.0		
Z40-667			0.358	139.0		
Z40-666			0.289	122.0		
Z40-665			0.272	112.0		
F-0784			0.33	105.0		
Z40-664			0.243	93		

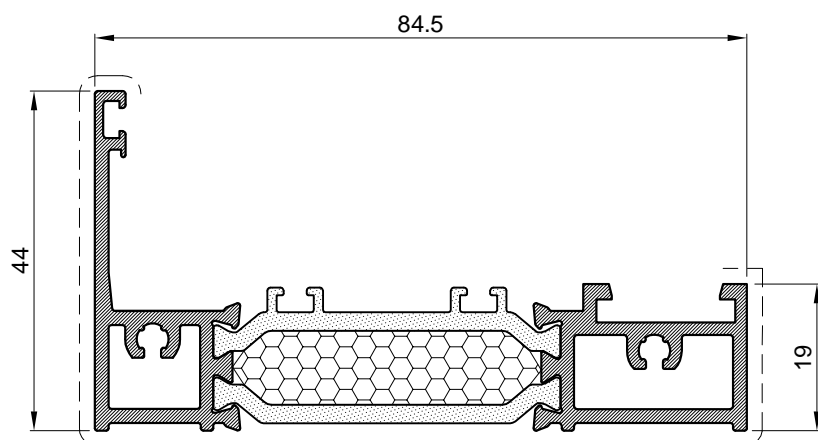




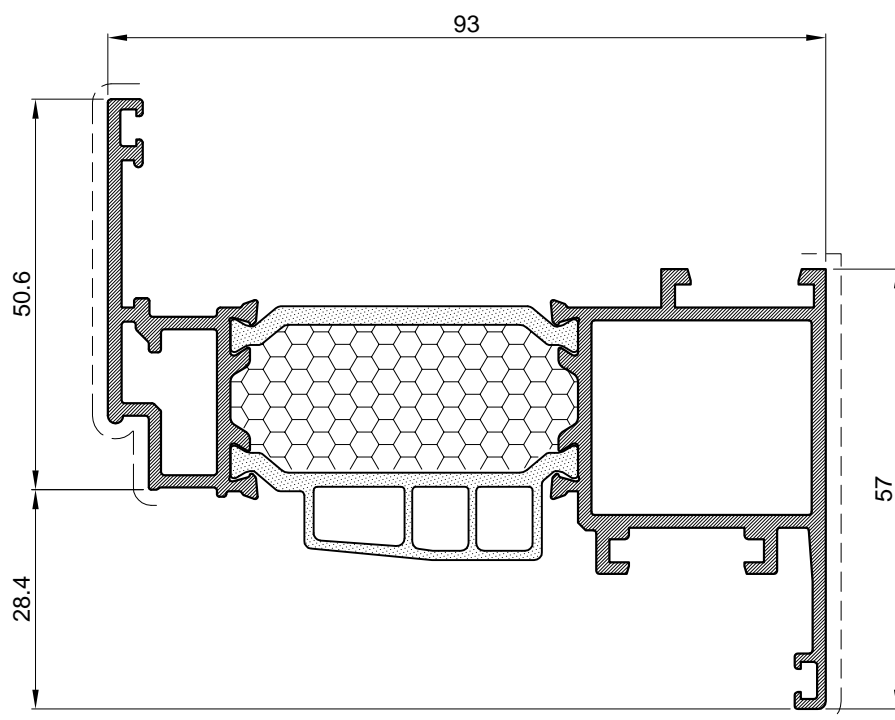
Profil rama		
Art.-Br.	<b>FT-0510</b>	
Težina	kg/m	<b>1.828</b>
Opseg	mm	431
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	21.04
	I <sub>y</sub> (cm <sup>4</sup> )	63.73
	W <sub>x</sub> (cm <sup>4</sup> )	4.56
	W <sub>y</sub> (cm <sup>4</sup> )	13.82
Dužina isporuke	mm	6500



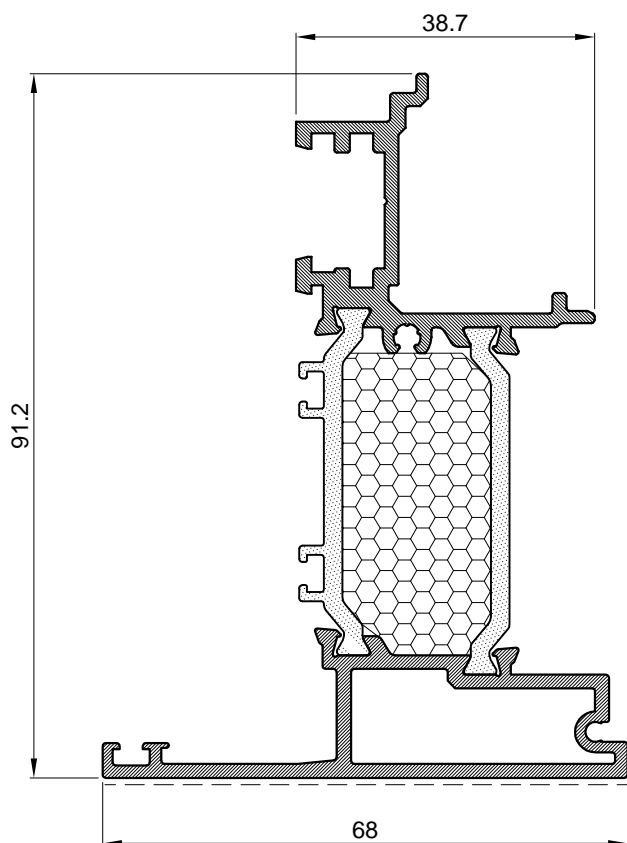
Profil rama		
Art.-Br.	<b>FT-0512</b>	
Težina	kg/m	1.716
Opseg	mm	409.90
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	38.26
	I <sub>y</sub> (cm <sup>4</sup> )	14.60
	W <sub>x</sub> (cm <sup>4</sup> )	11.28
	W <sub>y</sub> (cm <sup>4</sup> )	3.44
Dužina isporuke	mm	6500



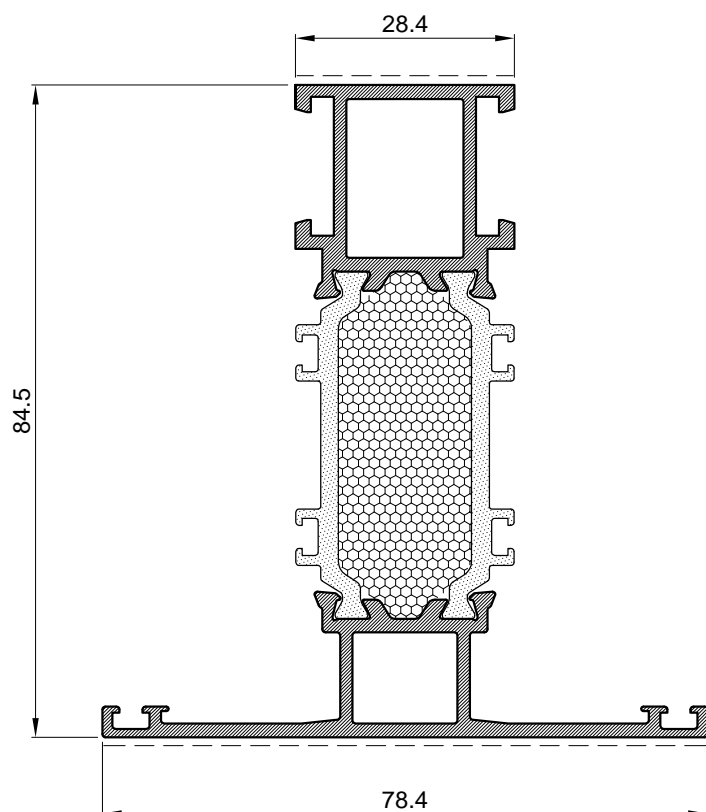
Profil rama		
Art.-Br.	<b>FT-0514</b>	
Težina	kg/m	<b>1.293</b>
Opseg	mm	334.21
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	3.52
	I <sub>y</sub> (cm <sup>4</sup> )	40.84
	W <sub>x</sub> (cm <sup>4</sup> )	1.13
	W <sub>y</sub> (cm <sup>4</sup> )	8.84
Dužina isporuke	mm	6500



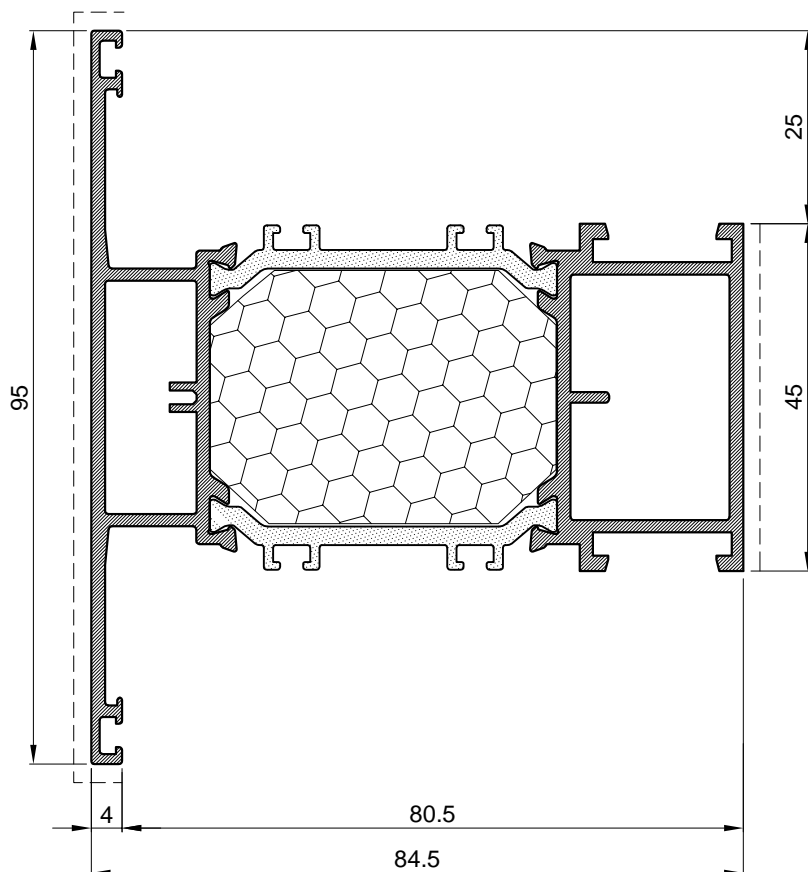
Profil krila		
Art.-Br.	<b>FT-0520</b>	
Težina	kg/m	<b>1.789</b>
Opseg	mm	459.28
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	13.36
	I <sub>y</sub> (cm <sup>4</sup> )	71.02
	W <sub>x</sub> (cm <sup>4</sup> )	3.58
	W <sub>y</sub> (cm <sup>4</sup> )	14.32
Dužina isporuke	mm	6500



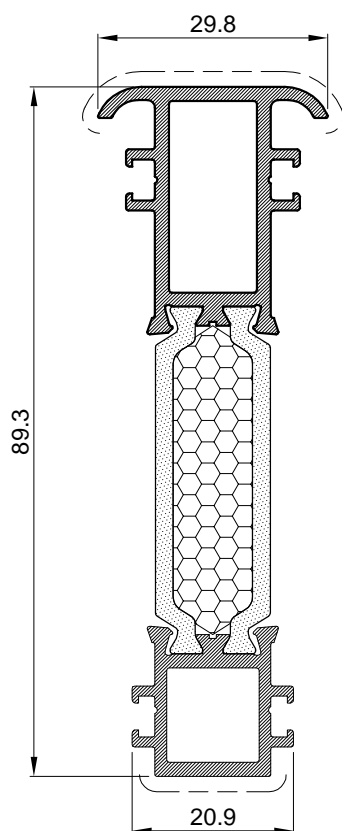
Profil combatute		
Art.-Br.	<b>FT-0530</b>	
Težina	kg/m	<b>1.608</b>
Opseg	mm	457.57
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	35.61
	I <sub>y</sub> (cm <sup>4</sup> )	11.06
	W <sub>x</sub> (cm <sup>4</sup> )	8.64
	W <sub>y</sub> (cm <sup>4</sup> )	2.82
Dužina isporuke	mm	6500



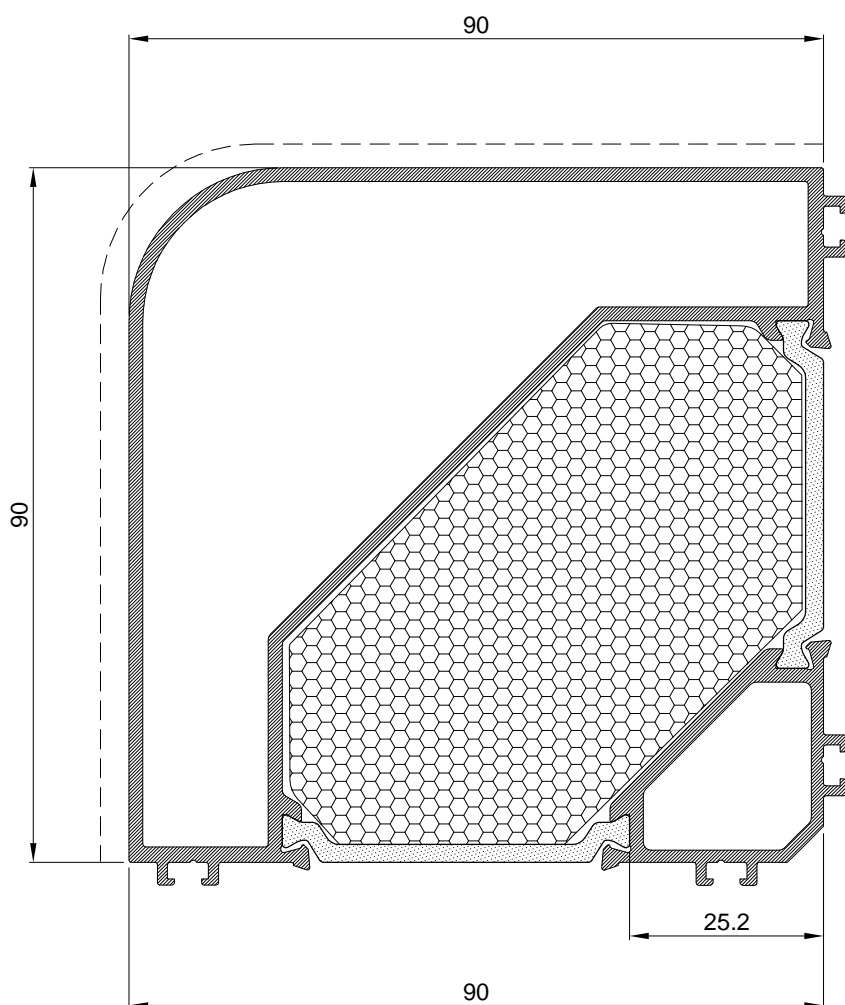
Profil prečke		
Art.-Br.	<b>FT-0531</b>	
Težina	kg/m	<b>1.560</b>
Opseg	mm	472.51
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	36.96
	I <sub>y</sub> (cm <sup>4</sup> )	10.32
	W <sub>x</sub> (cm <sup>4</sup> )	10.46
	W <sub>y</sub> (cm <sup>4</sup> )	2.65
Dužina isporuke	mm	6500



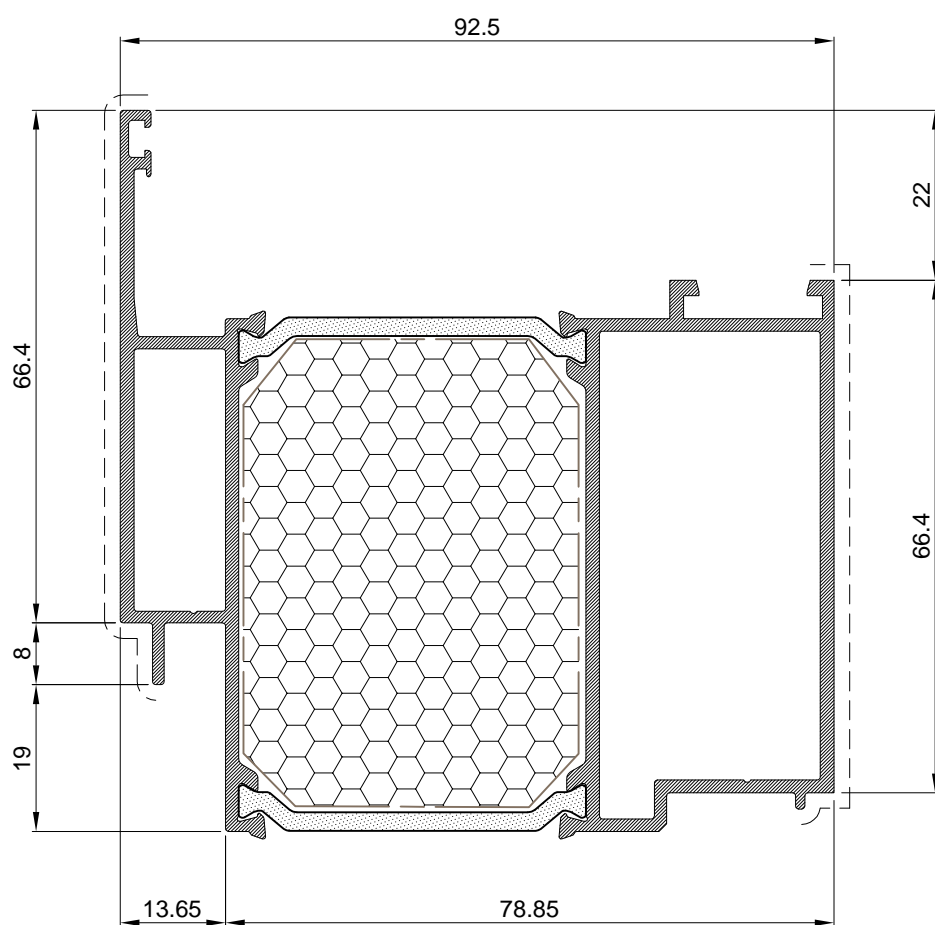
Profil prečke		
Art.-Br.	<b>FT-0532</b>	
Težina	kg/m	<b>1.62</b>
Opseg	mm	508.06
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	66.46
	I <sub>y</sub> (cm <sup>4</sup> )	23.15
	W <sub>x</sub> (cm <sup>4</sup> )	13.80
	W <sub>y</sub> (cm <sup>4</sup> )	4.87
Dužina isporuke	mm	6500



Profil		
Art.-Br.	<b>FT-0540</b>	
Težina	kg/m	1.190
Opseg	mm	308.71
Moment inercije	I <sub>x</sub> (cm <sup>4</sup> )	27.57
	I <sub>y</sub> (cm <sup>4</sup> )	1.6
	W <sub>x</sub> (cm <sup>4</sup> )	7.58
	W <sub>y</sub> (cm <sup>4</sup> )	1.08
Dužina isporuke	mm	6500

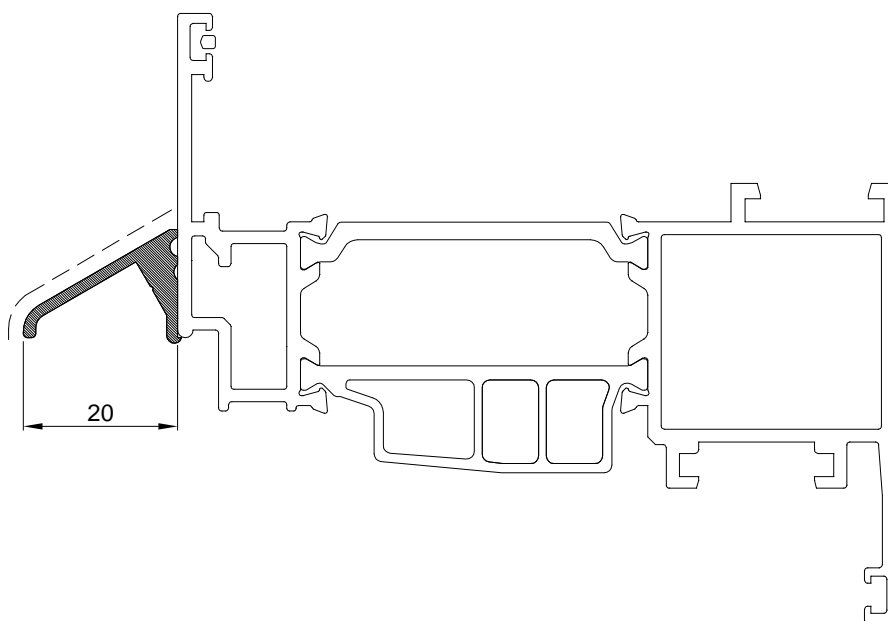


Profil		
Art.-Br.	<b>FT-0542</b>	
Težina	kg/m	
Opseg	mm	
Moment inercije	$I_x$ (cm <sup>4</sup> )	80.33
	$I_y$ (cm <sup>4</sup> )	88.39
	$W_x$ (cm <sup>4</sup> )	18.56
	$W_y$ (cm <sup>4</sup> )	18.56
Dužina isporuke	mm	6500

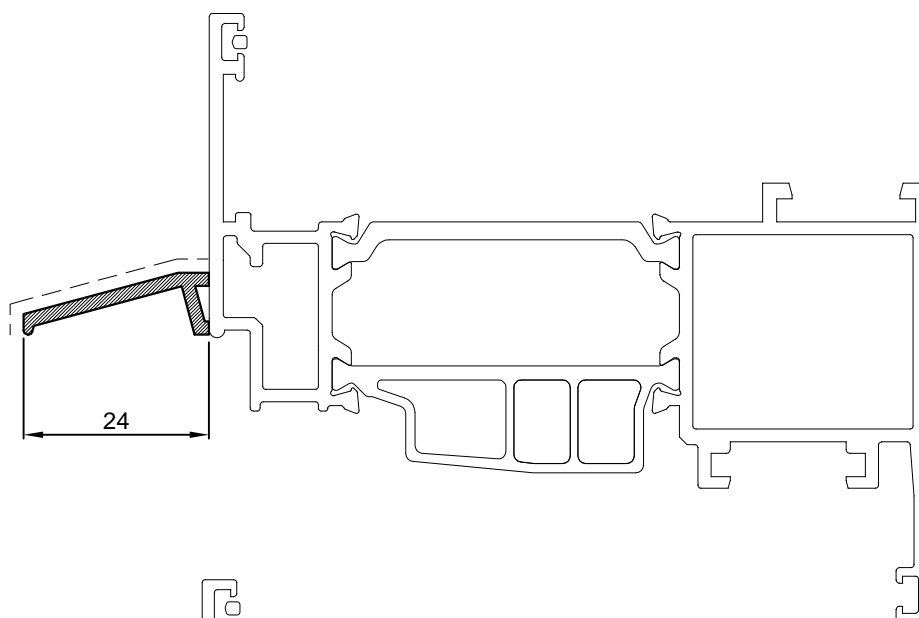


Profil		
Art.-Br.	<b>FT-0543</b>	
Težina	kg/m	2.126
Opseg	mm	439.74
Moment inercije	$I_x$ (cm <sup>4</sup> )	42.05
	$I_y$ (cm <sup>4</sup> )	85.58
	$W_x$ (cm <sup>4</sup> )	8.0
	$W_y$ (cm <sup>4</sup> )	17.97
Dužina isporuke	mm	6500

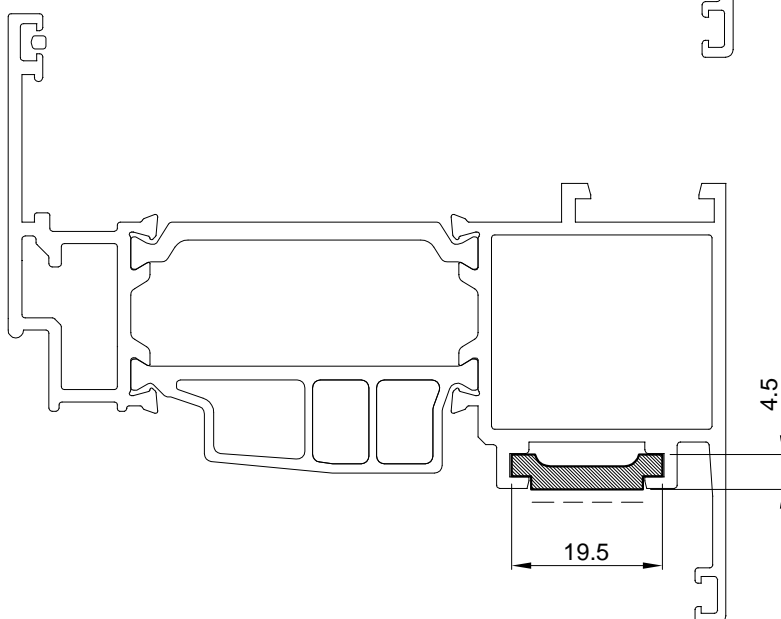
Okapnica		
Art.-Br.	<b>Z40-657</b>	
Težina	kg/m	<b>0.186</b>
Opseg	mm	23
Dužina isporuke	mm	6500

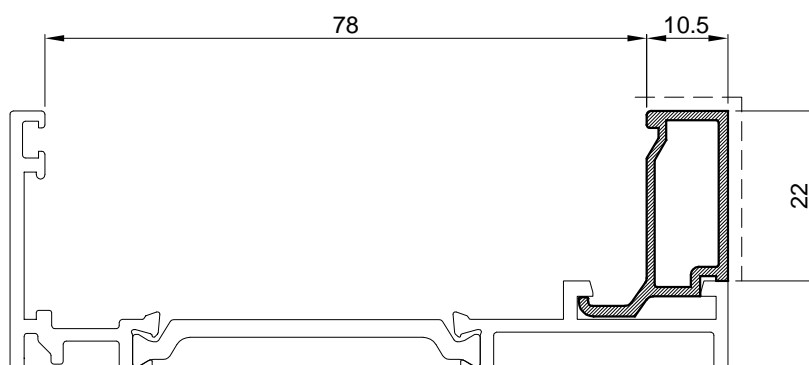


Okapnica		
Art.-Br.	<b>F-0228</b>	
Težina	kg/m	<b>0.153</b>
Opseg	mm	27
Dužina isporuke	mm	6500

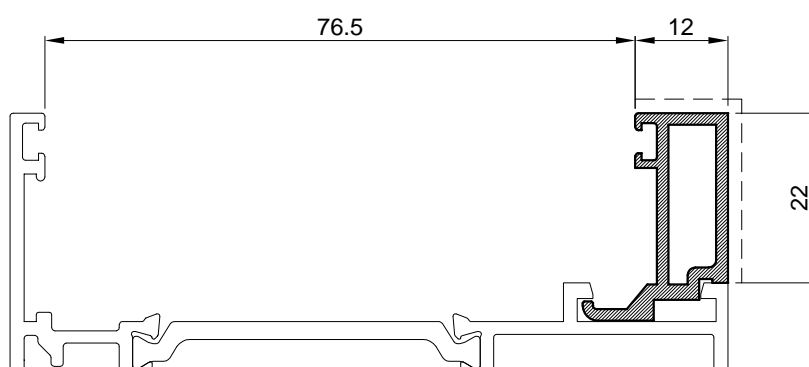


Klizač		
Art.-Br.	<b>NC-1459</b>	
Težina	kg/m	<b>0.156</b>
Opseg	mm	49
Dužina isporuke	mm	6500

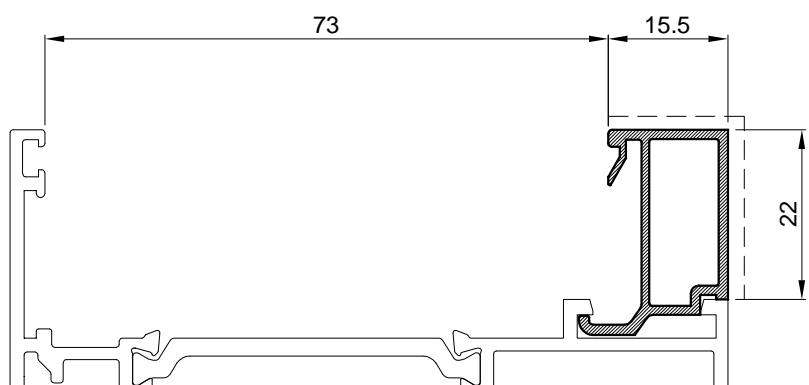




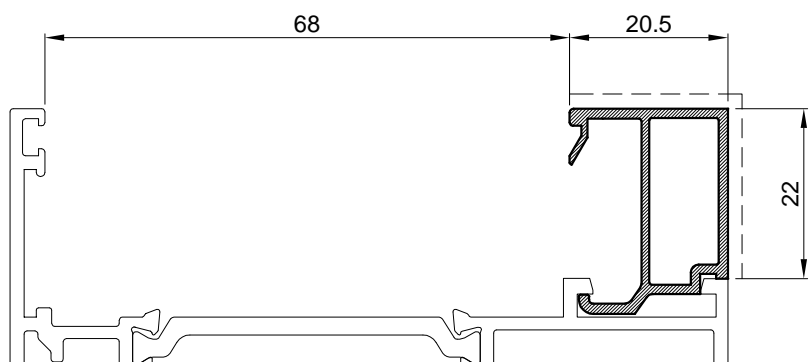
**Z40-664**  
 težiina kg/m 0.243  
 svj. povr.mm 32.5



**F-0784**  
 težiina kg/m 0.330  
 svj. povr.mm 34

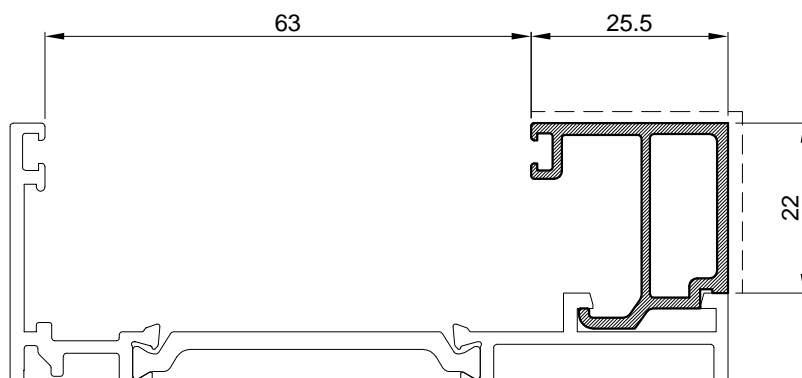


**Z40-665**  
 težiina kg/m 0.272  
 svj. povr.mm 37

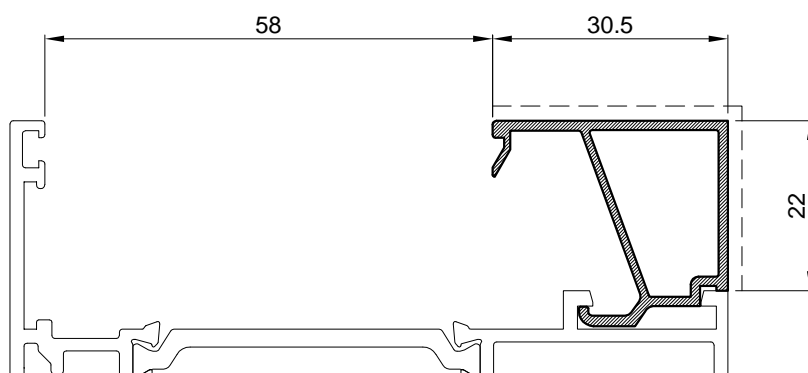


**Z40-666**  
 težiina kg/m 0.289  
 svj. povr.mm 42

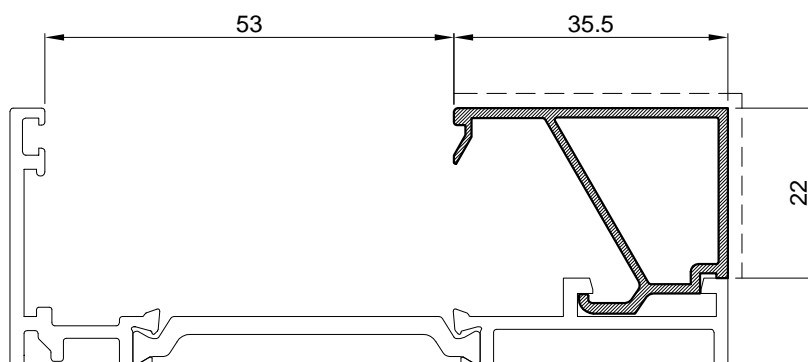




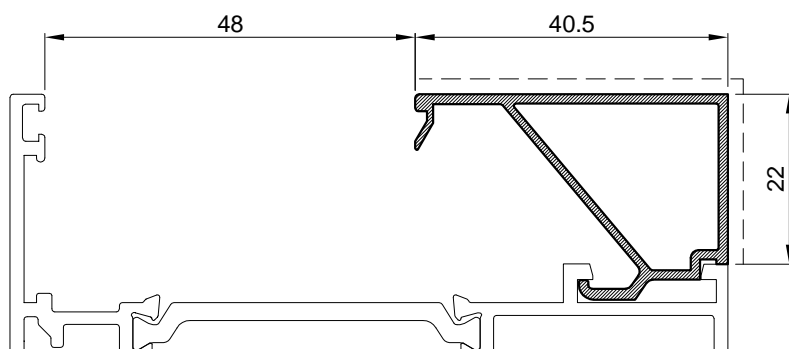
**Z40-667**  
 težiina kg/m 0.358  
 svj. povr.mm 47



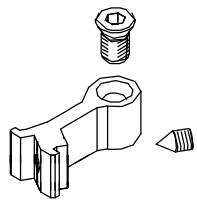
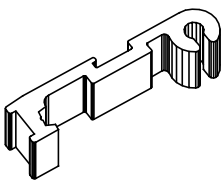
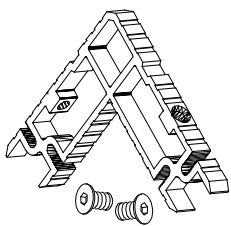
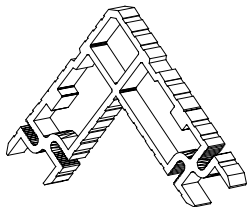
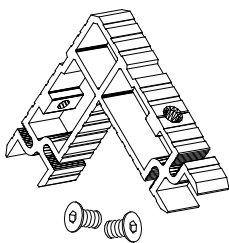
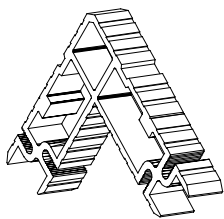
**Z40-668**  
 težiina kg/m 0.326  
 svj. povr.mm 52

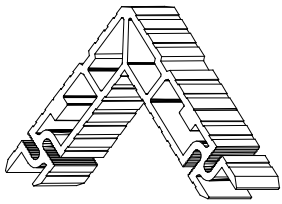
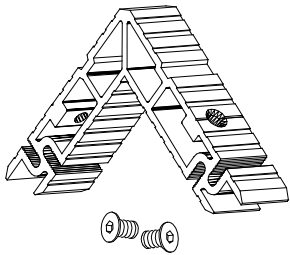
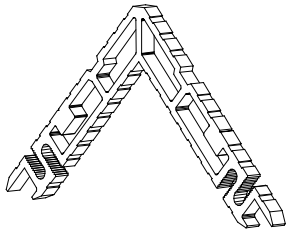
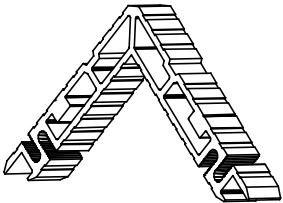
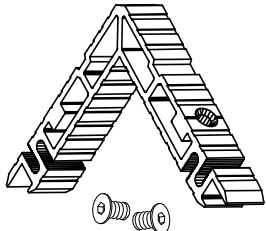
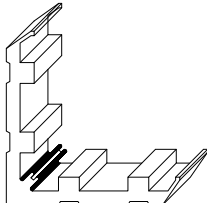


**Z40-669**  
 težiina kg/m 0.347  
 svj. povr.mm 57

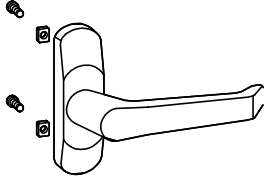



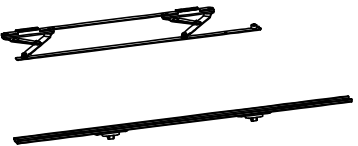
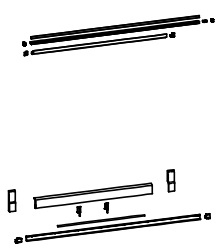


**Z40-670**  
 težiina kg/m 0.373  
 svj. povr.mm 62

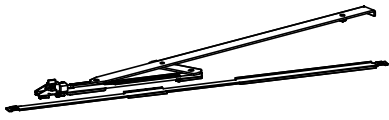
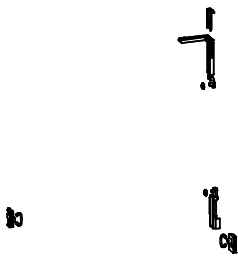
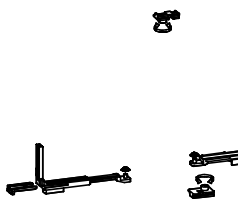
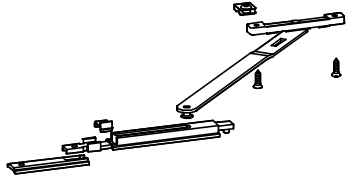
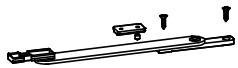
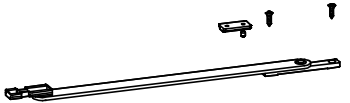
CODE	Izgled-presjek	Opis	Materijal	Nap.
710.066	 <p>M8x13 M6x10</p>	<ul style="list-style-type: none"> <li>- Veznik (L=14.7mm)</li> <li>- Stara oznaka E-200</li> </ul>	Al.	
710.079		<ul style="list-style-type: none"> <li>- Dodatni veznik za prečku F-0531</li> <li>- Radi se iz profila F-1237</li> </ul>	Al.	
710.090		<ul style="list-style-type: none"> <li>- Kutna spojnica prozora -za komoru 12.3x35.2</li> </ul>	Al.	
710.091		<ul style="list-style-type: none"> <li>- Kutna spojnica prozora -za komoru 12.3x35.2</li> </ul>	Al.	
710.118		<ul style="list-style-type: none"> <li>- Kutna spojnica za T85 S+</li> <li>- Komora 20.6x35.2 (radi se iz profila F-0795) s vijkom</li> </ul>	Al.	
710.119		<ul style="list-style-type: none"> <li>- Kutna spojnica za T85 S+</li> <li>- Komora 20.6x35.2 (radi se iz profila F-0795)</li> </ul>	Al.	

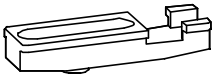
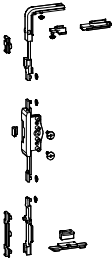
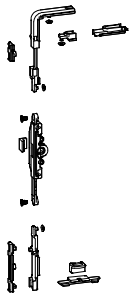

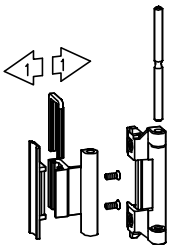
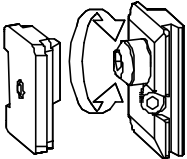
CODE	Izgled-presjek	Opis	Materijal	Nap.
710.127		- Kutna spojnica za T85 S+ - Komora 25.2x28.5 (radi se iz profila F-1239)	Al.	
710.128		- Kutna spojnica za T85 S+ - Komora 25.2x28.5 (radi se iz profila F-1239)	Al.	
710.129		- Kutna spojnica za T85 S+ - Komora 7.25x18.9 (radi se iz profila F-1240)	Al.	
710.137		- Kutna spojnica za T85 S+ - Komora 20.6x19 (radi se iz profila F-1240)	Al.	
710.138		- Kutna spojnica za T85 S+ - Komora 20.6x19 (radi se iz profila F-1240)	Al.	
725.003		- Kutna spojnica za komoru 16,6x6,3 - Stara oznaka K-0558/E	Al.	

CODE	Izgled-presjek	Opis	Materijal	Nap.
730.001		<ul style="list-style-type: none"> <li>- Kutna spojnica za komoru 2x4.8</li> <li>- Stara oznaka G112</li> </ul>	Inox	
730.002		<ul style="list-style-type: none"> <li>- Kutna spojnica za komoru 2x4.8</li> <li>- Stara oznaka G112/A</li> </ul>	Inox	
731.010		<ul style="list-style-type: none"> <li>- Kutna spojnica za usku komoru</li> <li>- Stara oznaka 2019/500</li> </ul>		
111.001.01 02 03		<ul style="list-style-type: none"> <li>- Dvodijelna šarka <i>EURO ŽLIJEB</i></li> <li>- Stara oznaka E-100</li> <li>- Boje: 01- bijela; 02 - siva; 03 - crna</li> </ul>		
114.001.01 02 03		<ul style="list-style-type: none"> <li>- Dvodijelna šarka-<i>EURO ŽLIJEB</i></li> <li>- Stara oznaka 2006.00.305-s</li> <li>310-b</li> <li>313-c</li> </ul>		
133.027		<ul style="list-style-type: none"> <li>- Otklopno-klizni mehanizam (notter)- bazni mehanizam-osnovni set</li> <li>-Stara oznaka 464 507 00</li> </ul>	AISI Zamak	


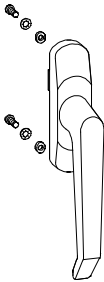
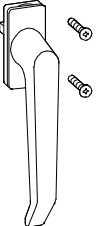
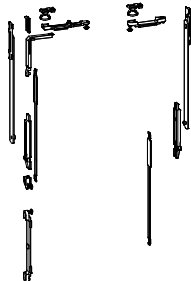
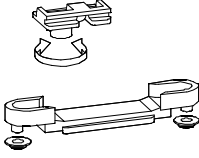
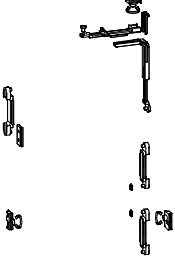
CODE	Izgled-presjek	Opis	Materijal	Nap.
133.028.01 02 03		-Ručka sa pogonom -Stara oznaka: 080 914 03, 05, 07		
133.029		-Točkići -Stara oznaka: -005 509 10-desni -005 509 20-lijevi		
133.030		-Pločice -Stara oznaka: 060 510 00		
133.033		-Dodatak po širini-za širine krila veće od 1481 mm -Stara oznaka: 005 519 00		
133.031		-Škare -Stara oznaka:-005 516 00-za širine krila 630-930 -005 517 00-za širine krila 931-1280 -005 518 00-za širine krila 1281-1680		
133.032		-Pokrivni profil -Stara oznaka:-005 511 0x-za širine krila 630-930 -005 512 0x-za širine krila 931-1080 -005 513 0x-za širine krila 1081-1280 -005 514 0x-za širine krila 1281-1480 -005 515 0x-za širine krila 1481-1680		

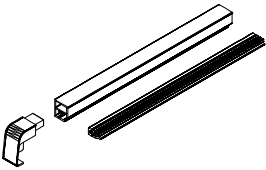
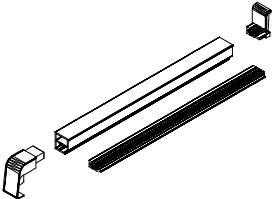
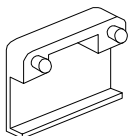
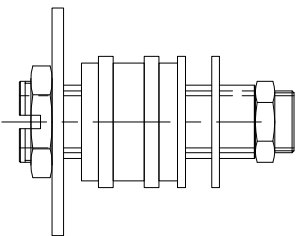
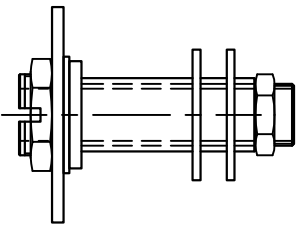
CODE	Izgled-presjek	Opis	Materijal	Nap.
133.050		- DRY KIPP mehanizam EUGEN NOTTER (AL2000) - bazni set stara oznaka 225 403 00		
133.051.01 02 03		- Šarke nosivosti do 100 kg stare oznake: - 084 415 06 - siva - 084 415 05 - crna - 084 415 03 - bijela		
133.052.01 02 03		- Šarke nosivosti do 130 kg stare oznake: -084 431 06 - siva -084 431 05 - crna - 084 431 03 - bijela		
133.053.01 02 03		- Šarke nosivosti do 130 kg s vijcima stare oznake: - 084 417 06 - siva - 084 417 05 - crna - 084 417 03 - bijela		
133.054		-Škare Gr.200 stara oznaka 222 050 00		
133.055		- Škare Gr.270 stara oznaka 222 052 00		

CODE	Izgled-presjek	Opis	Materijal	Nap.
133.056		- Škare Gr.500 stara oznaka 222 055 00		
133.057		- dodatno ključanje po visini stara oznaka 025 075 00		
133.058		- dodatno ključanje po širini stara oznaka 025 078 00		
133.059		- dodatne škare za krila većih dimenzija (1300 - 1600) stara oznaka 034 111 00		
133.060		- graničnik otvaranja krila stara oznaka 080 092 00		
133.061		- graničnik otvaranja krila stara oznaka 080 093 00		

CODE	Izgled-presjek	Opis	Materijal	Nap.
133.062		-kočnica stara oznaka 080 099 00		
133.063		- ključanje pomoćnog krila u više točaka s pogonskim mehanizmom ručke stara oznaka 425 322 00		
133.064		-ključanje pomoćnog krila u više točaka s pogonskim mehanizmom ručke stara oznaka 425 464 00		
133.065		-ključanje pomoćnog krila bazni set stara oznaka 084 126 00		
133.066.01 02 03		- dodatna šarka nosivosti do 100 kg stare oznake: - 222 206 06 - siva - 222 206 05 - crna - 222 206 03 - bijela		
133.067		-dodatno ključanje pomoćnog krila - opcija umjesto srednje šarke stara oznaka 025 771 00		

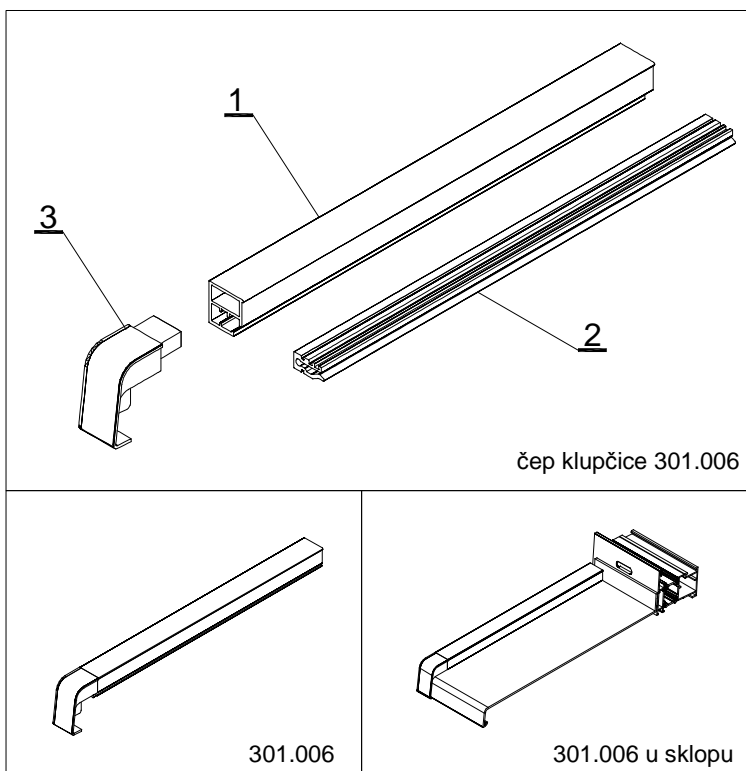


CODE	Izgled-presjek	Opis	Materijal	Nap.
133.068		-ključanje pomoćnog krila u više točaka (montiranje okova na krilo) stara oznaka 025 602 00		
133.069.01 02 03		- ručka - 080 351 06 - siva - 080 351 05 - crna - 080 351 03 - bijela		
133.070.01 02 03		- ručka - 020 314 06 - siva - 020 314 05 - crna - 020 314 03 - bijela		
133.071		- okov za ventus s ručkom za otvaranje sa strane stara oznaka 425 254 00		
133.072		- dodatno ključanje po širini (Ventus) stara oznaka 425 143 00		
133.073		- dodatno ključanje po visini (Ventus) stara oznaka 425 144 00		

CODE	Izgled-presjek	Opis	Materijal	Nap.
<b>301.006.01</b> 02 03		Set za bočni čep klupice	PVC, TPE AI	
<b>301.009.01</b> 02 03		Set za bočni čep klupice	PVC, TPE AI	
<b>373.003</b>		- Maska za drenažni otvor - Stara oznaka: 2328	PVC	
<b>220.010</b>		- Snop glodala za obradu prečke FT-0531 prema ramu FT-0510		
<b>220.011</b>		- Snop glodala za obradu umetka za parapet FT-0543 prema krilu FT-0520		

**SET ZA BOČNI ČEP PROZORSKE KLUPČICE 301.006**

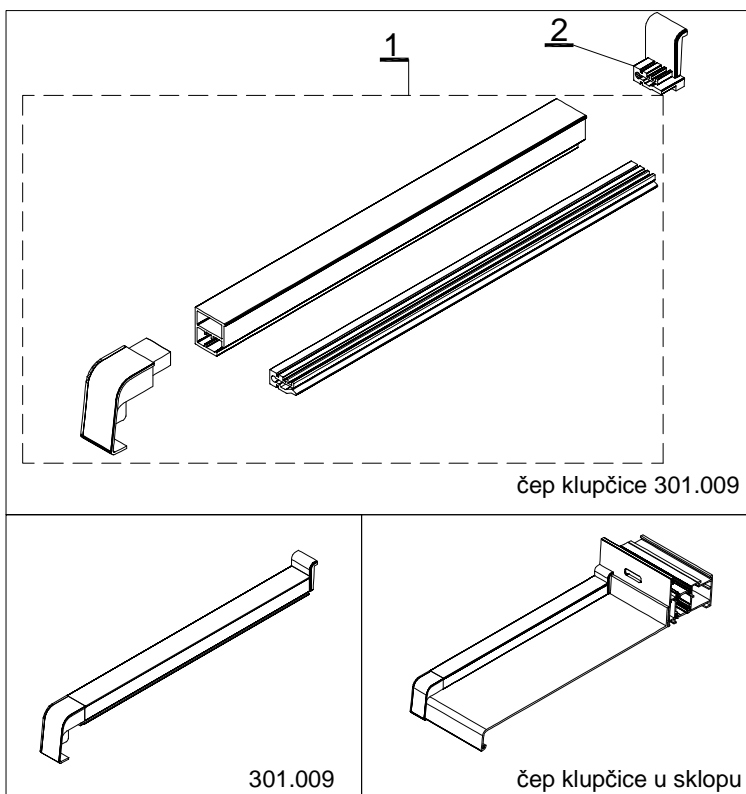
1. - Osnovni profil
2. - PVC prihvatnik klupčice
3. - Vanjski čep-prihvatnik klupčice i profila

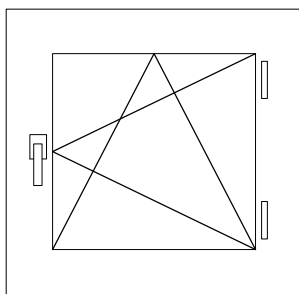


- Setovi bočnih čepova 301.006 i 301.009 su u veličini profila klupčice F-0680/J (280 mm)
- Za manje klupčice se radi skraćivanje čepa prema mjerama u uputstvu artikla
- Izbor boje čepova prema RAL-karti

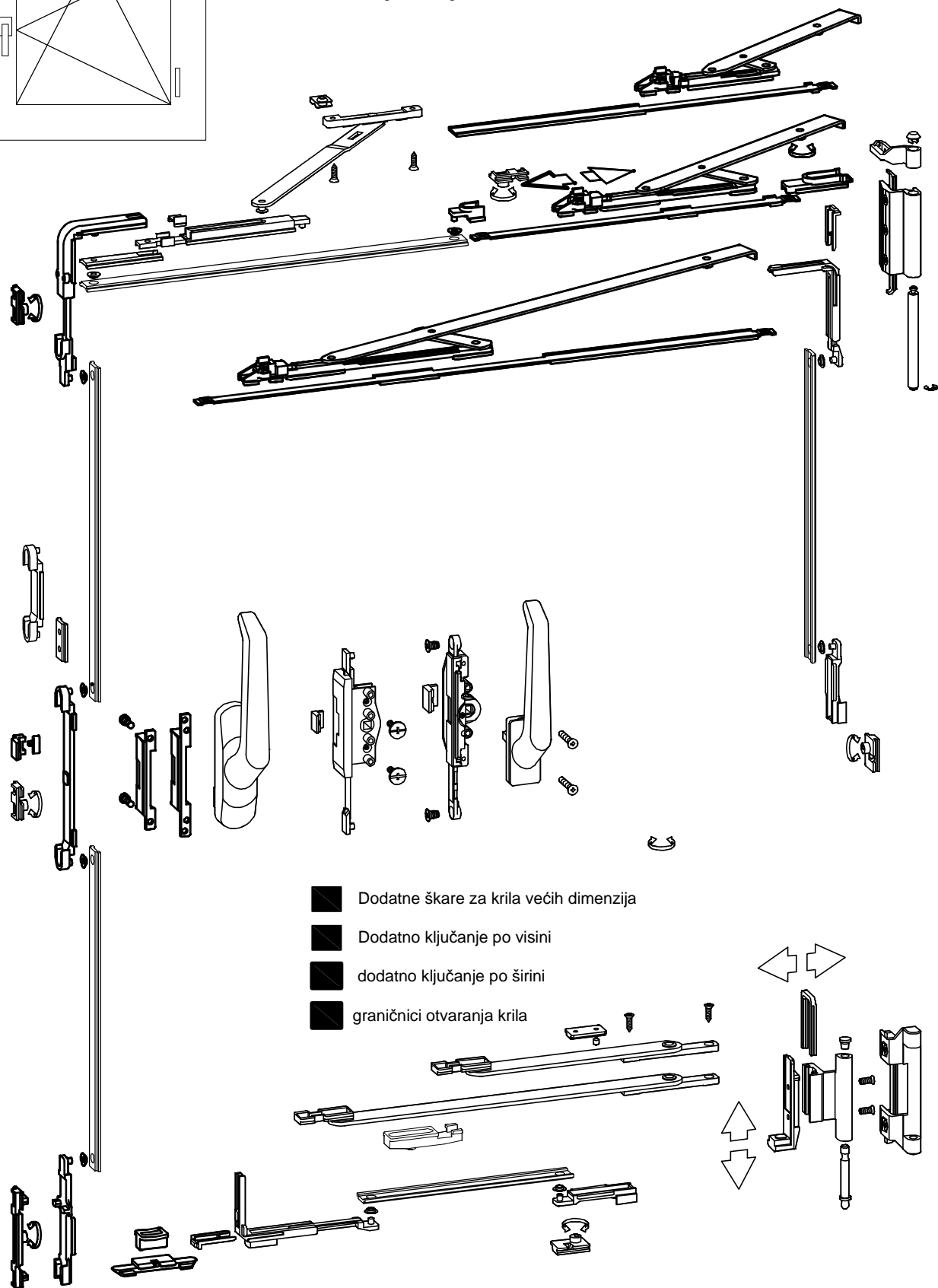
**SET ZA BOČNI ČEP PROZORSKE KLUPČICE 301.009**

1. - Set klupčice 301.006
2. - Čep do otvora-prihvatnik klupčice i profila



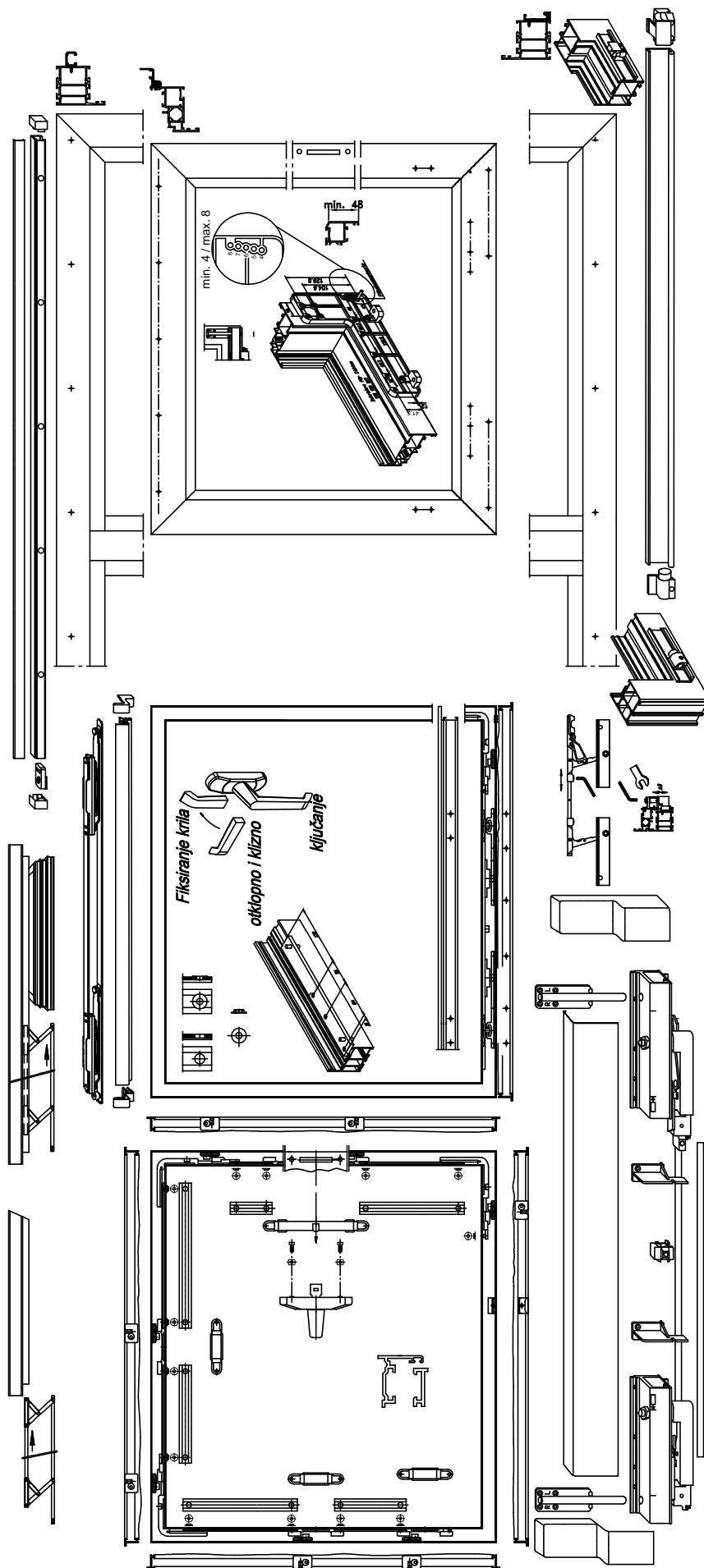


Širina krila: 380 - 1600 mm  
 Visina krila: 600 - 2400mm  
 Nosivost max. 100 Kg / 130 Kg

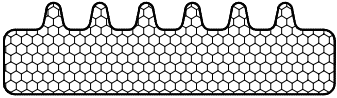
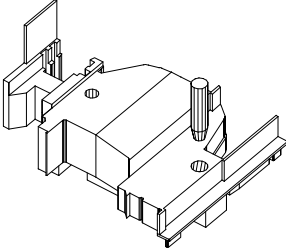
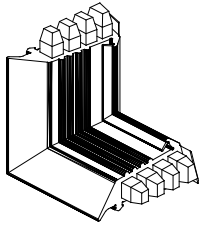


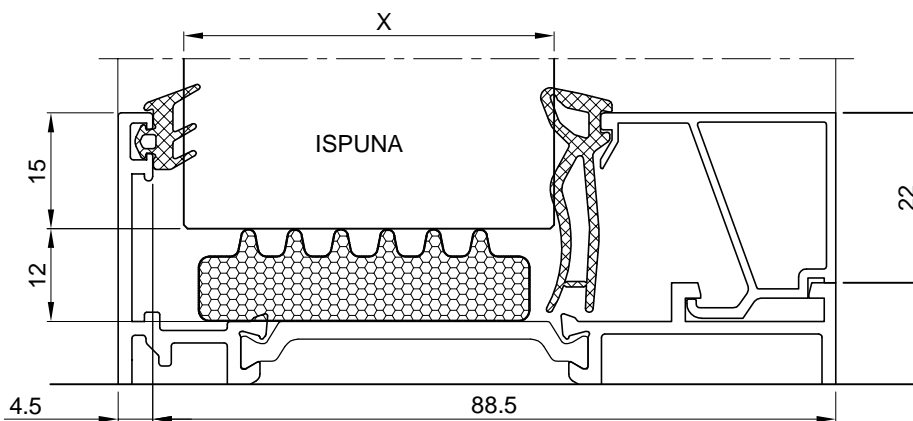
- Dodatne škare za krila većih dimenzija
- Dodatno klučanje po visini
- dodatno klučanje po širini
- graničnici otvaranja krila

OTKLOPNO KLIZNI MEHANIZAM - NOTTER



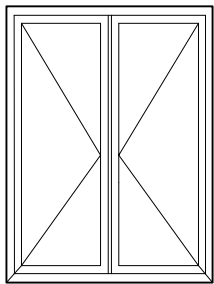
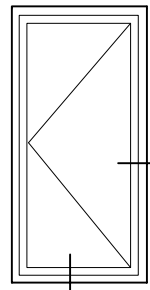
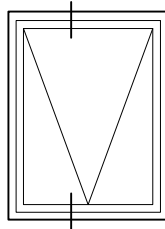
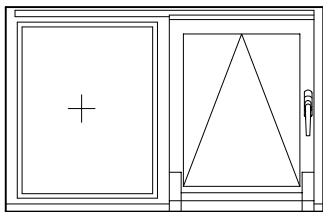
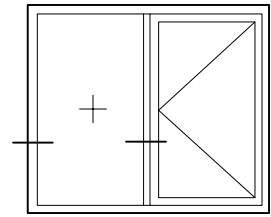
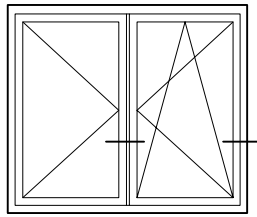
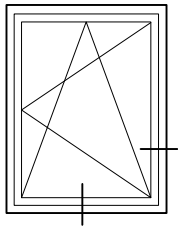
CODE	Izgled-presjek	Opis	Materijal	Nap.
335.001		- Srednja brtva	alfaprene	
326.001		- Brtva u krilu	alfaprene	
326.002		- Brtva prema staklu /vanjska/	alfaprene	
321.003		-Brtva prema staklu /vanjska/	EPDM	
316.001		-Brtva prema staklu /unutarnja/	alfaprene	
321.002		- Brtva prema staklu /unutarnja/	EPDM	

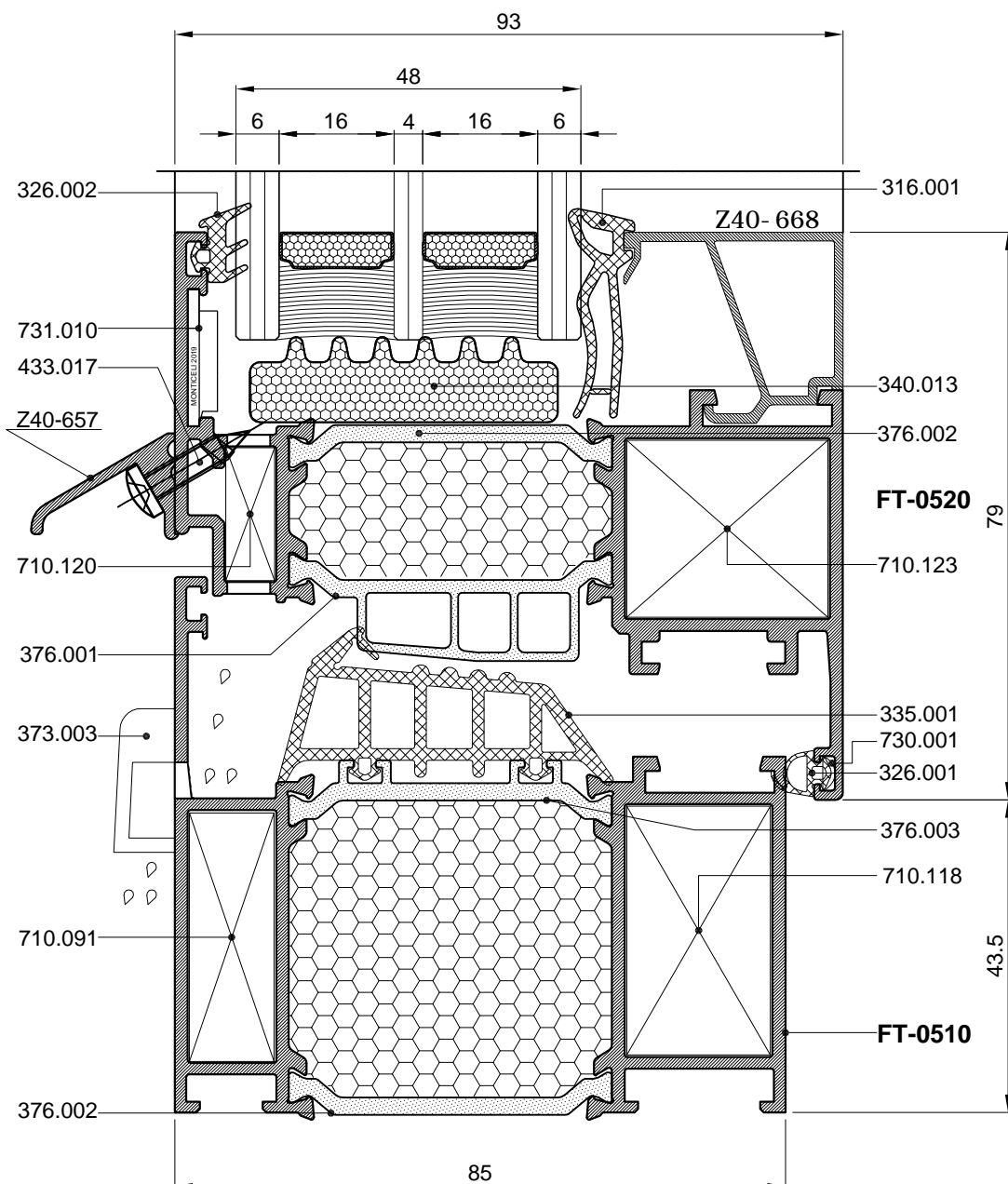
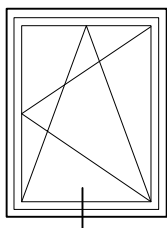
CODE	Izgled-presjek	Opis	Materijal	Nap.
340.013		-Ispuna po opsegu stakla -Izoterm plamaframe	PPE	
365.047		-Umetak za profil kombatute FT-0530 (donji i gornji)	Tvrda guma	
365.039		-Kutni umetak za brtvu 335.001	EPDM	

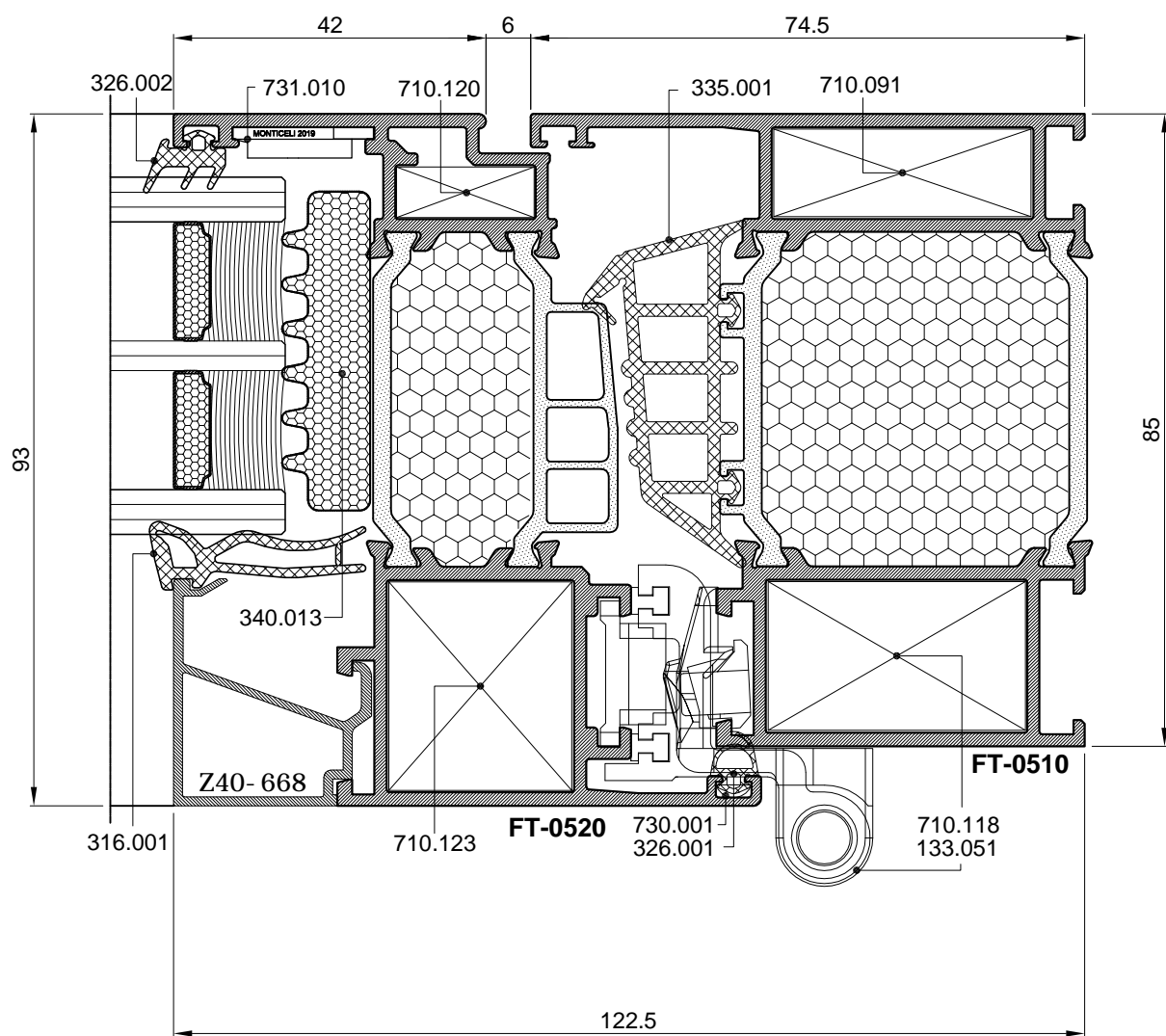
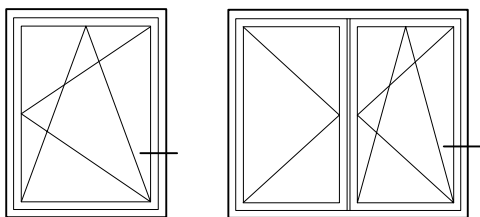


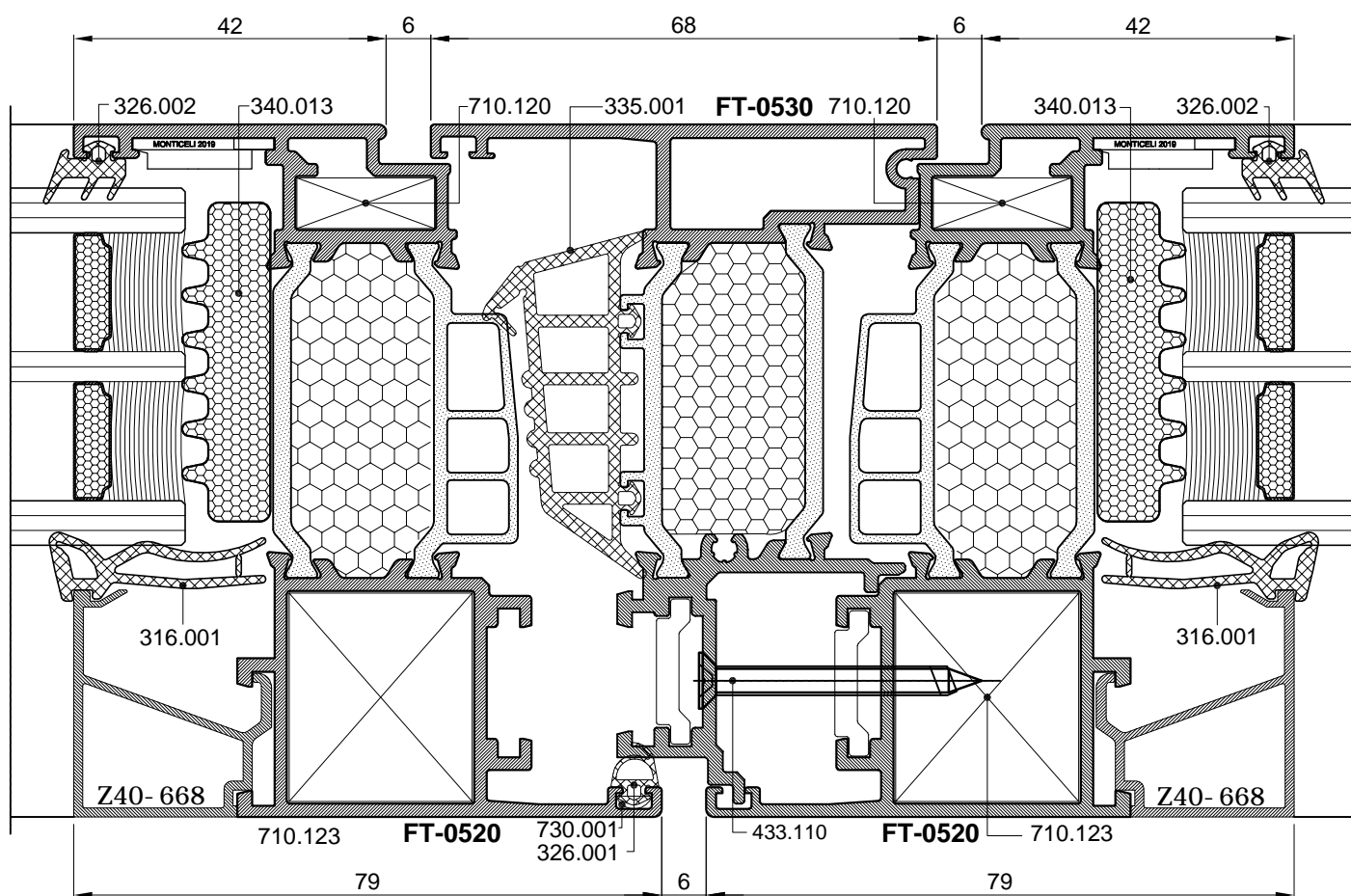
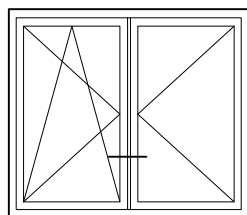
Ispuna X	Vanjska brtva	Unutarnja brtva	LAJSNE ZA STAKLO			
36.5-38.5	326.002	316.001				
41.5-43.5	326.002	316.001				
46.5-48.5	326.002	316.001				
51.5-53.5	326.002	316.001				
56.5-58.5	326.002	316.001				
61.5-63.5	326.002	316.001				
65-67	326.002	316.001				
66.5-68.5	326.002	316.001				
75-77	326.002	316.001				

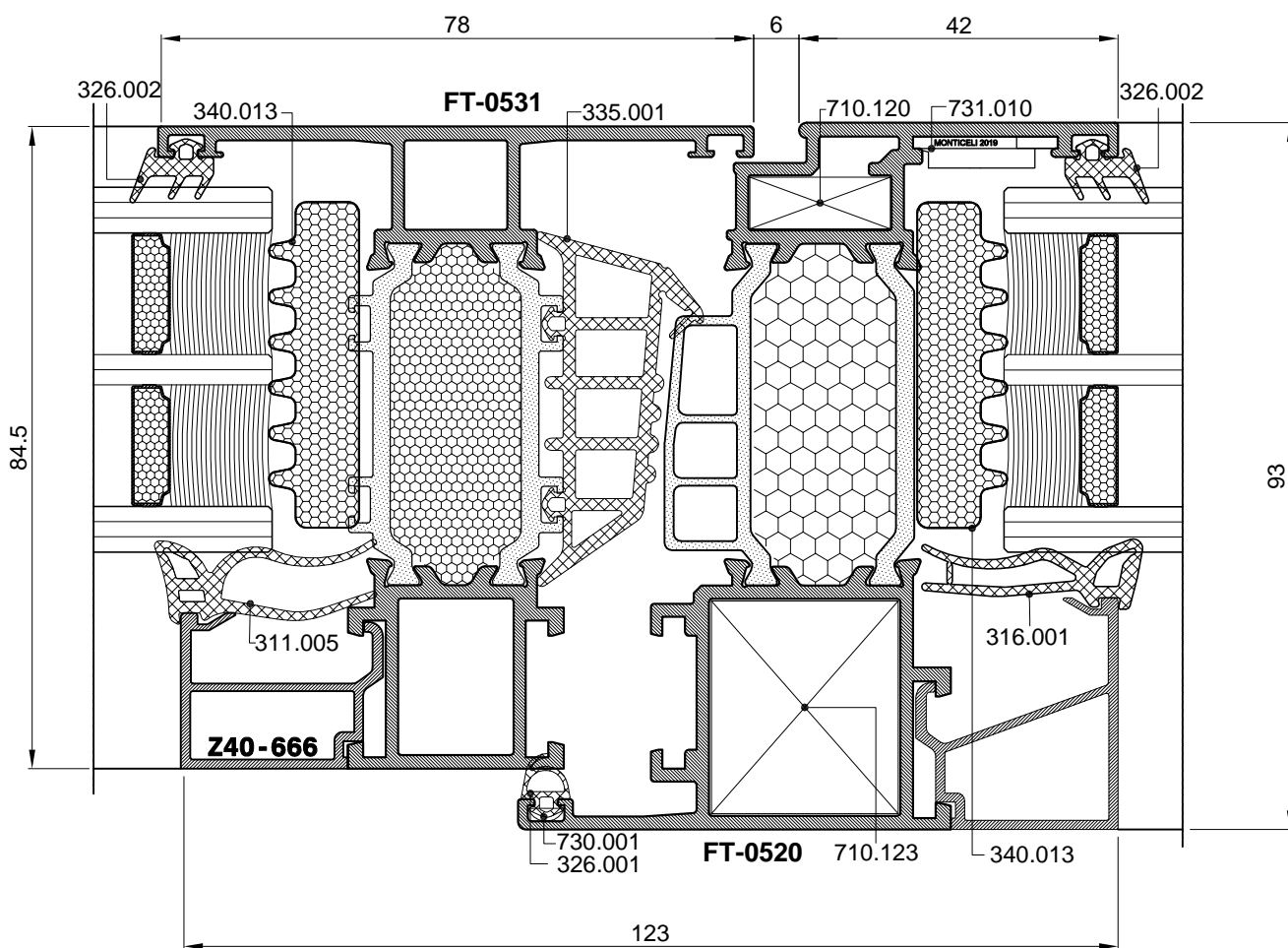
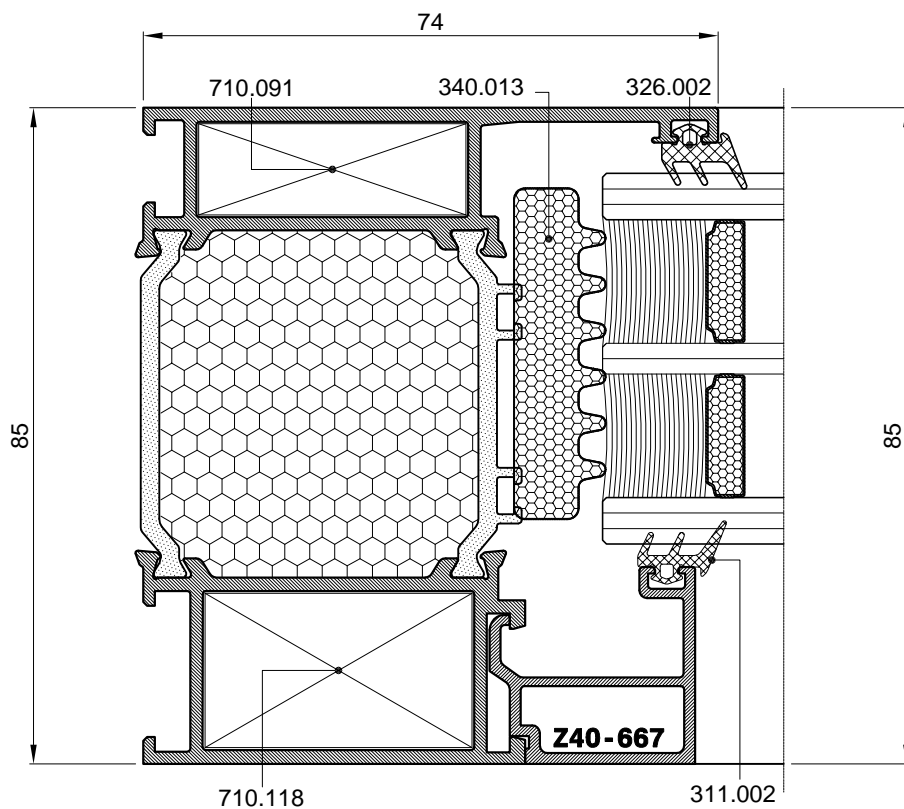
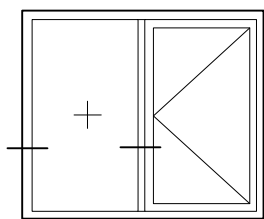


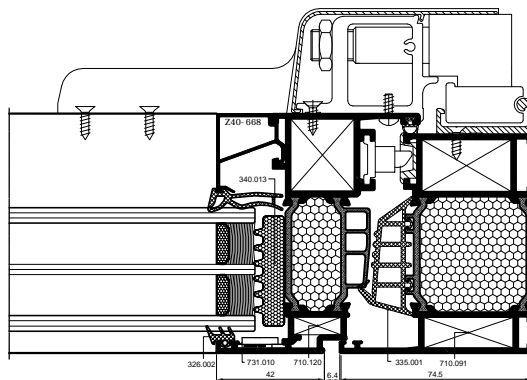
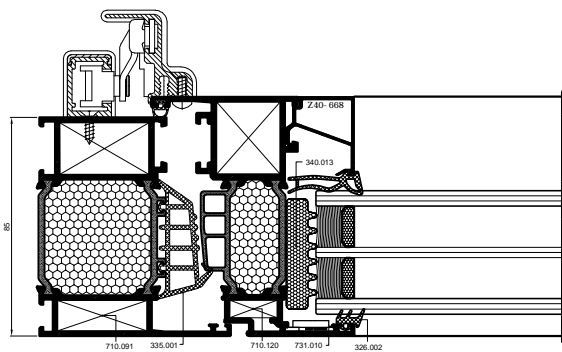




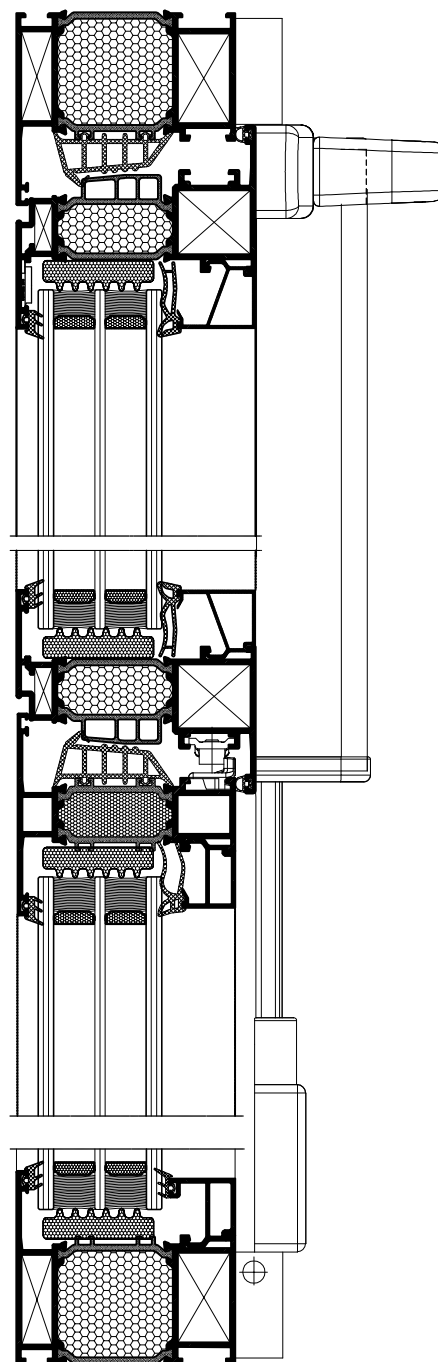
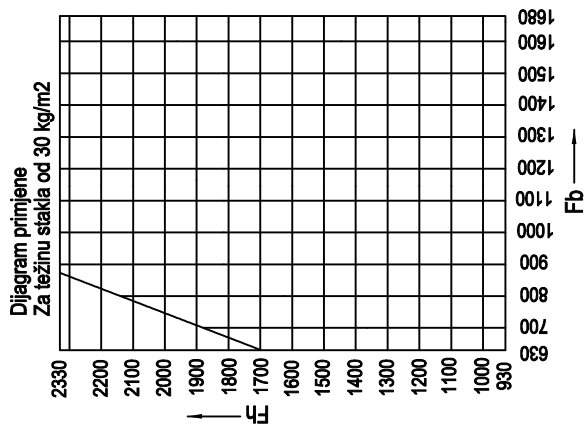
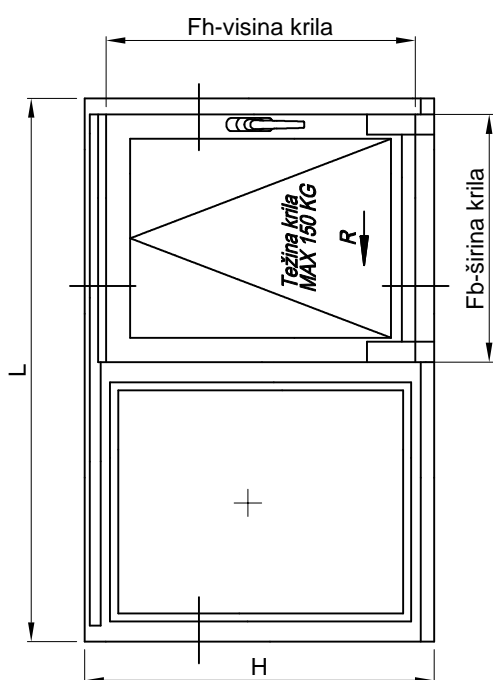




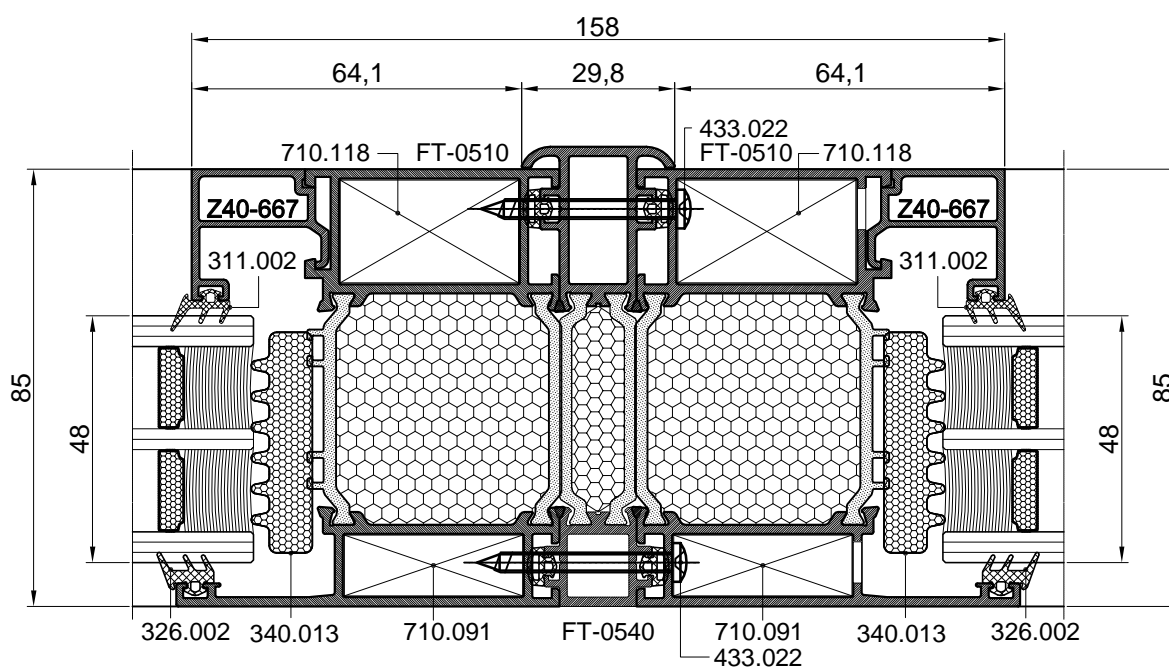
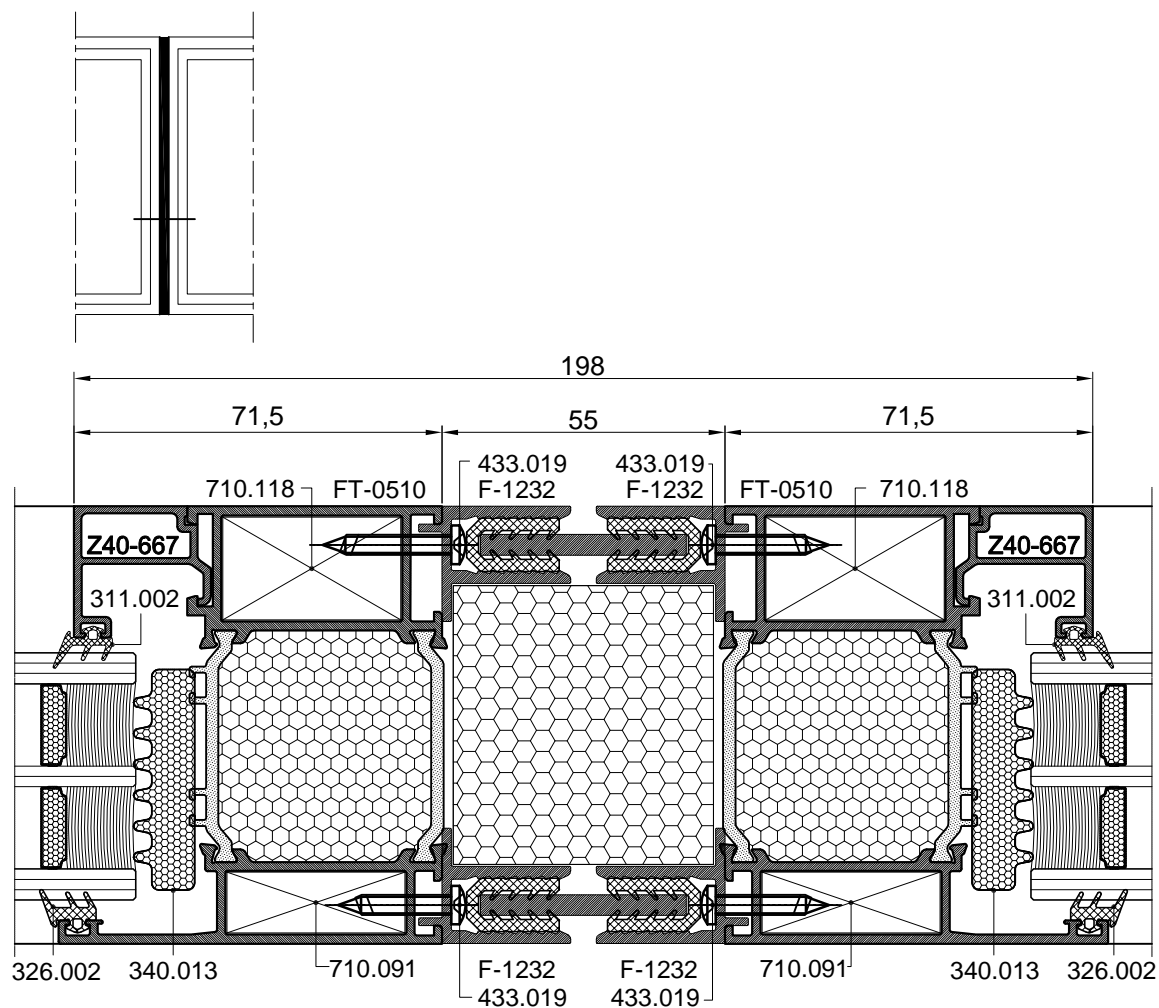




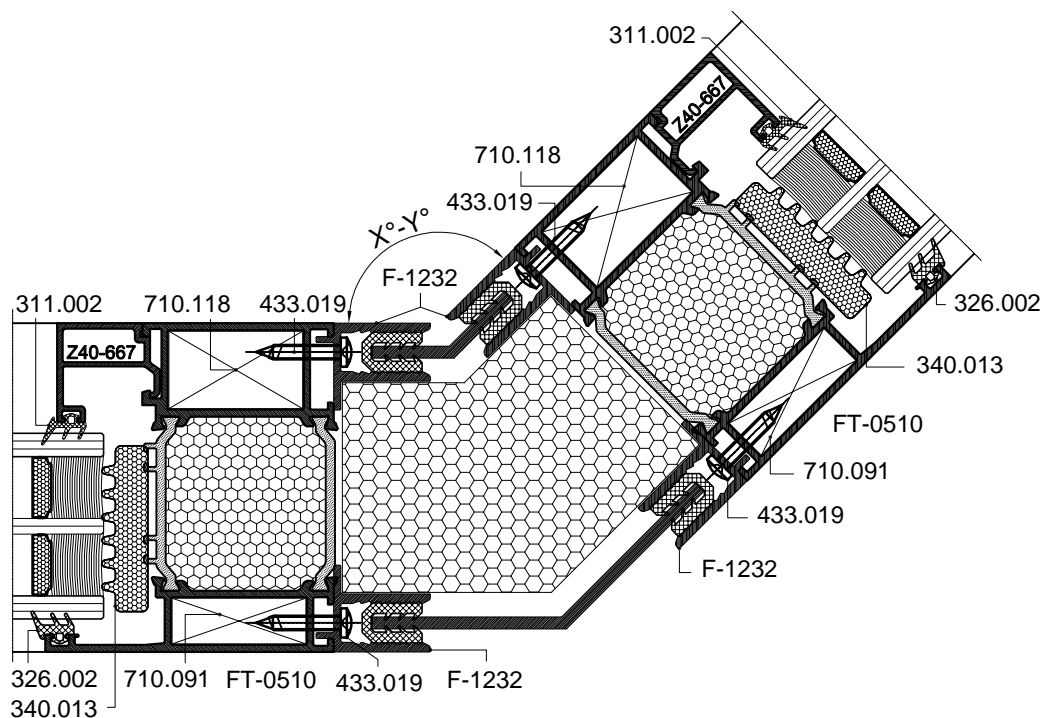
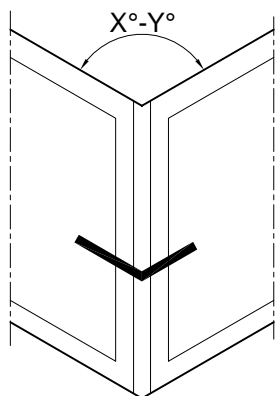
OTKLOPNO KLIZNI PROZOR - DESNI  
-Mehanizam NOTTER



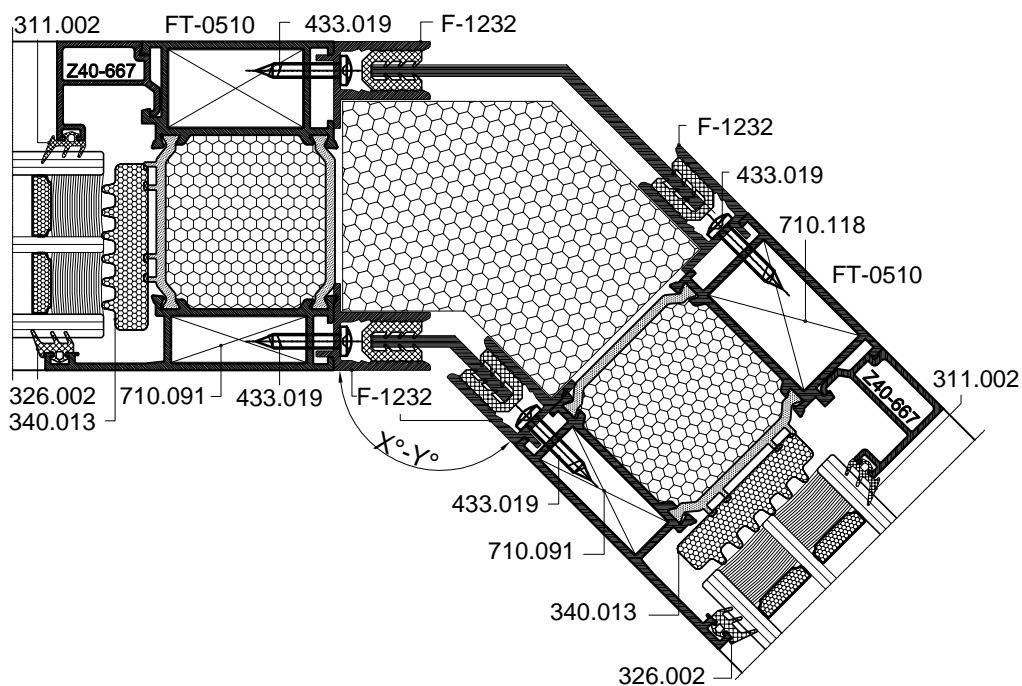
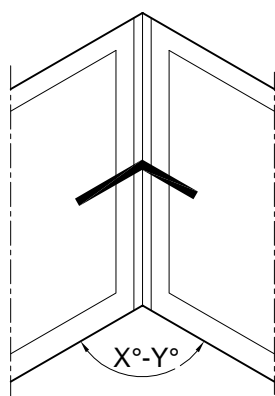
LINIJSKI SPOJ(180°)



PROMJENLJIVI KUT 90°-180°

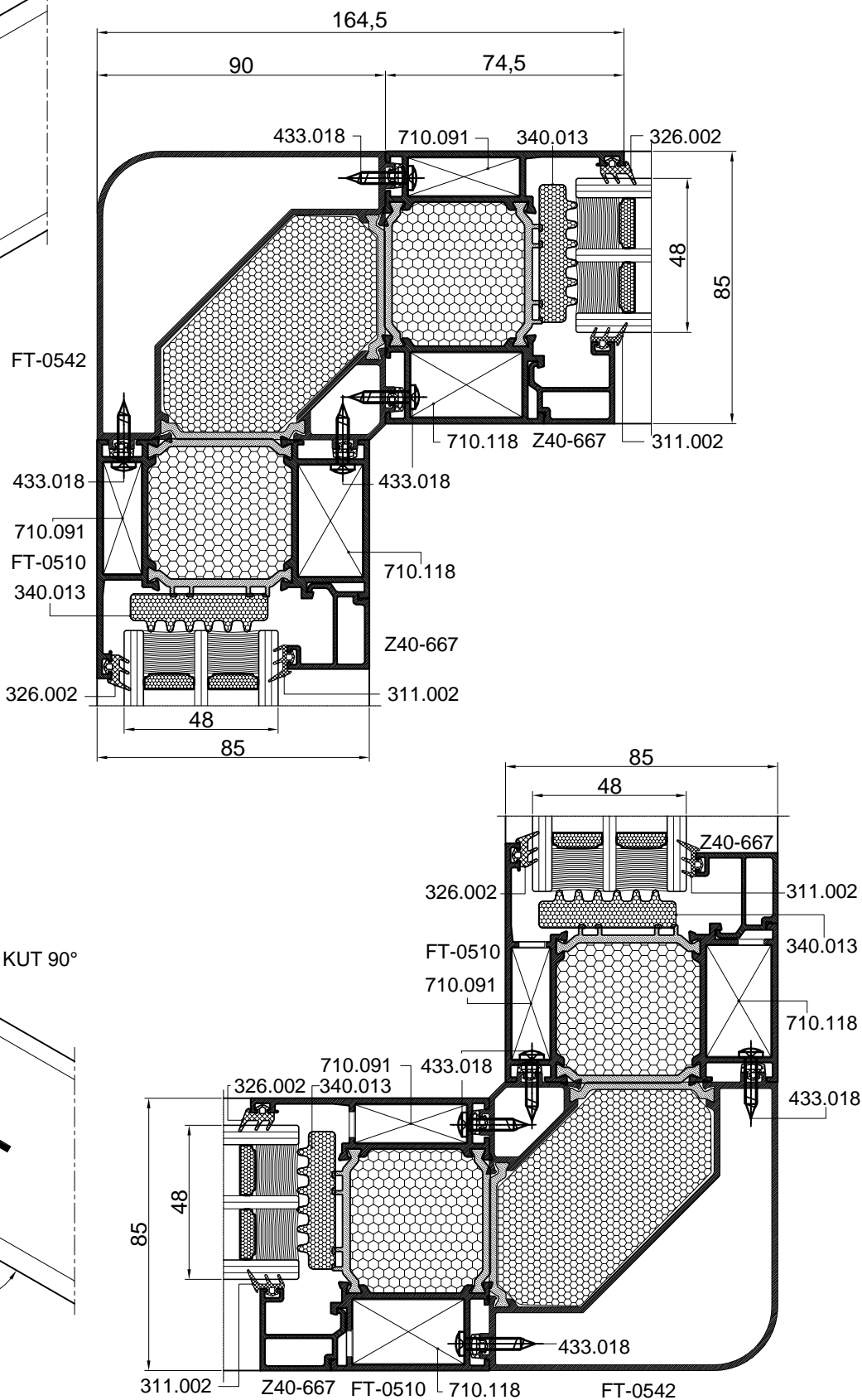
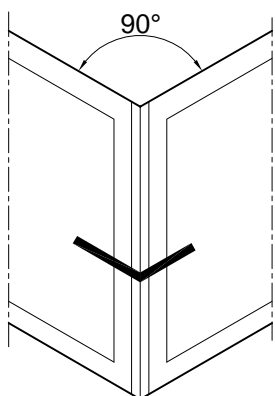


PROMJENLJIVI KUT 90°-180°

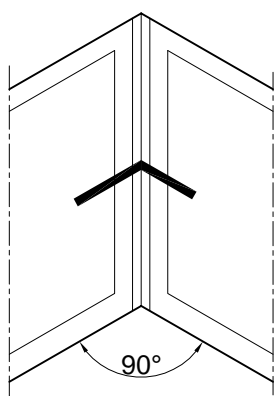


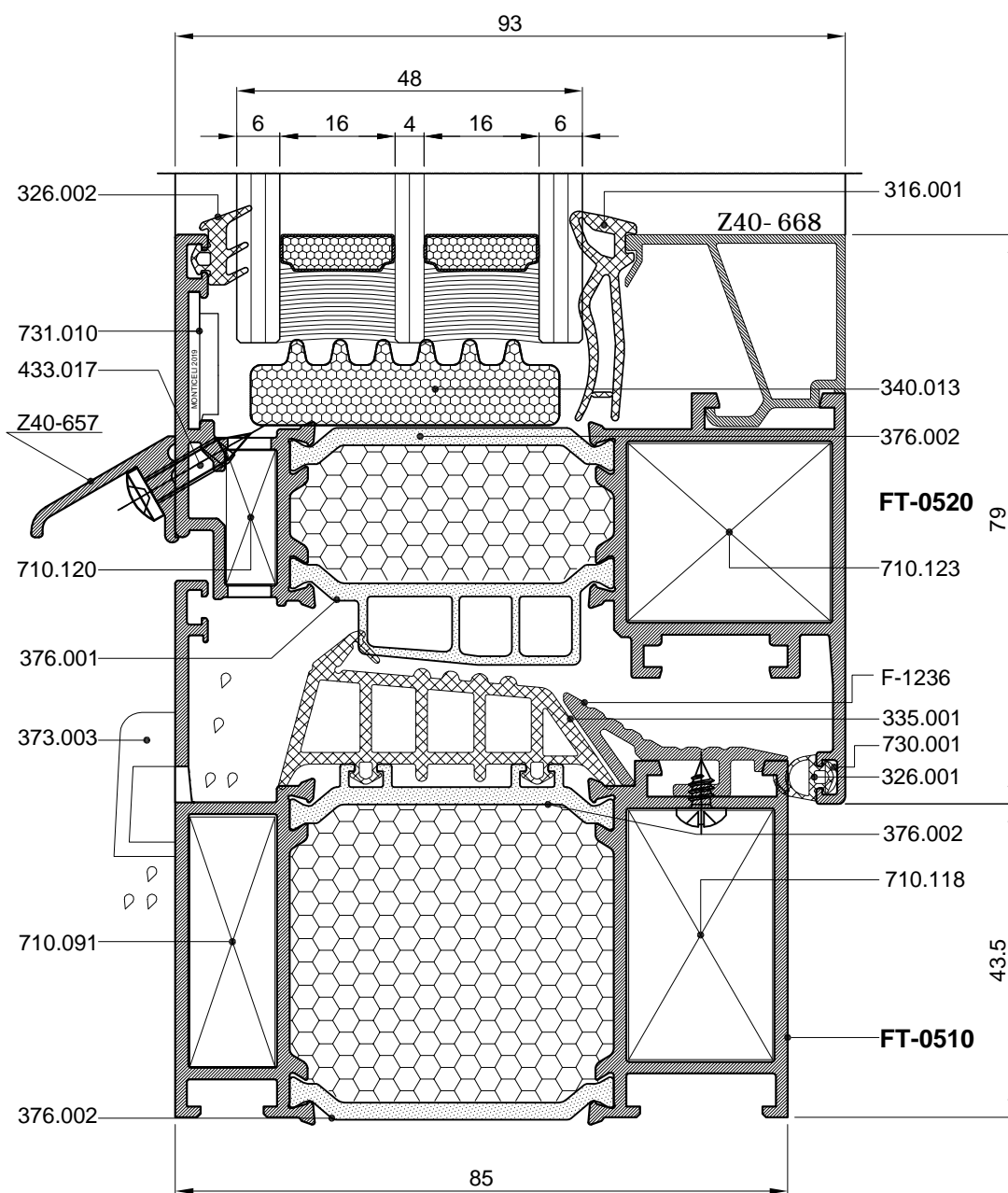
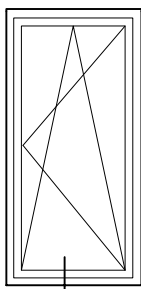


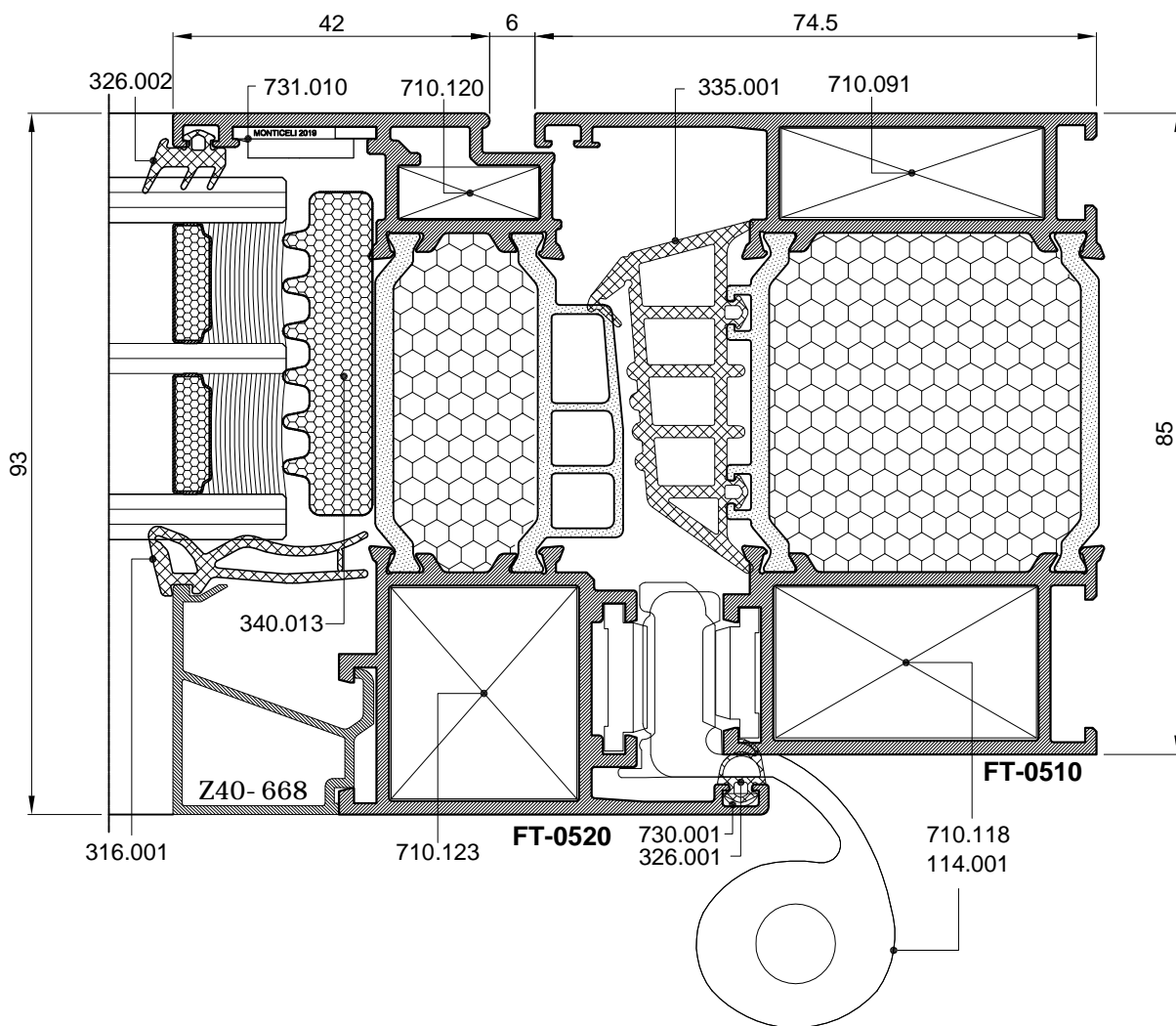
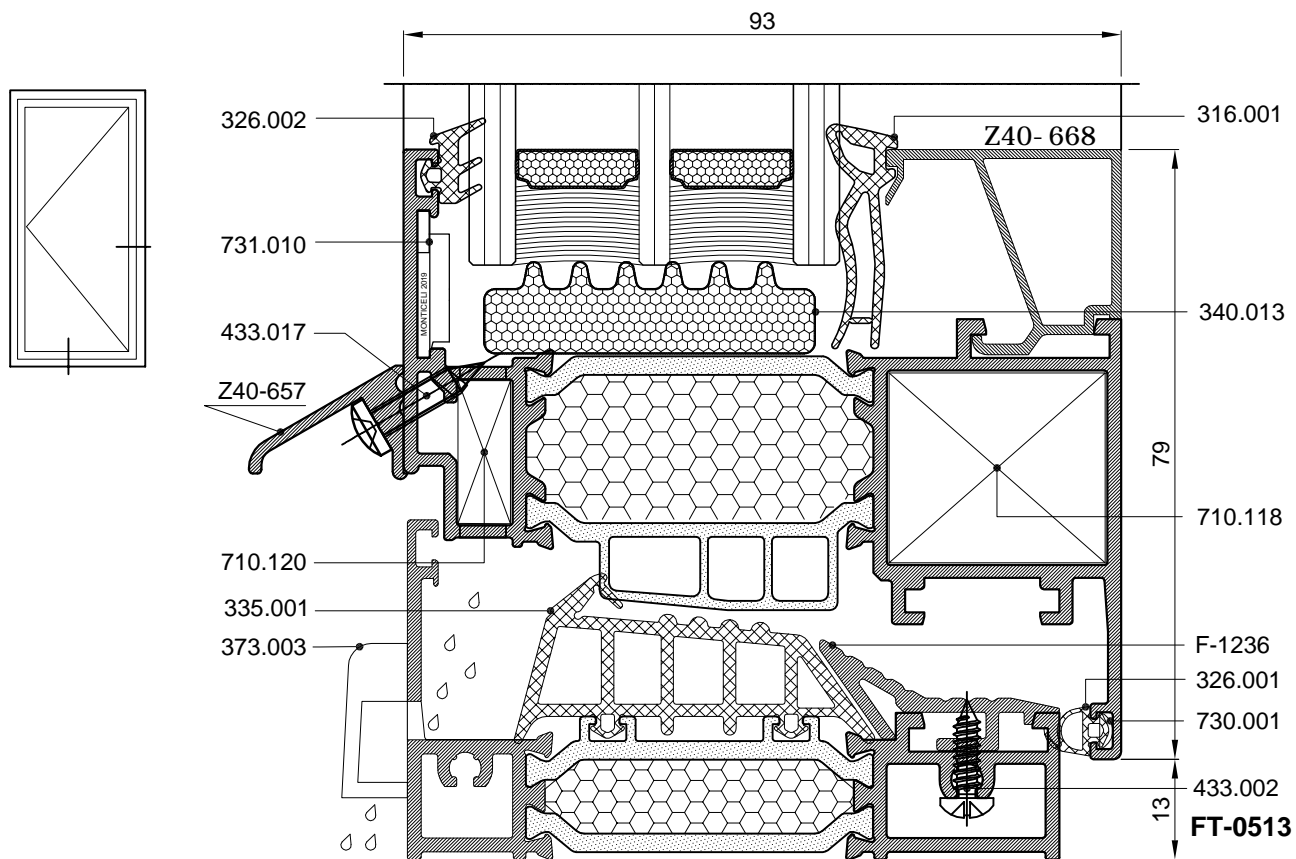
VANJSKI KUT 90°

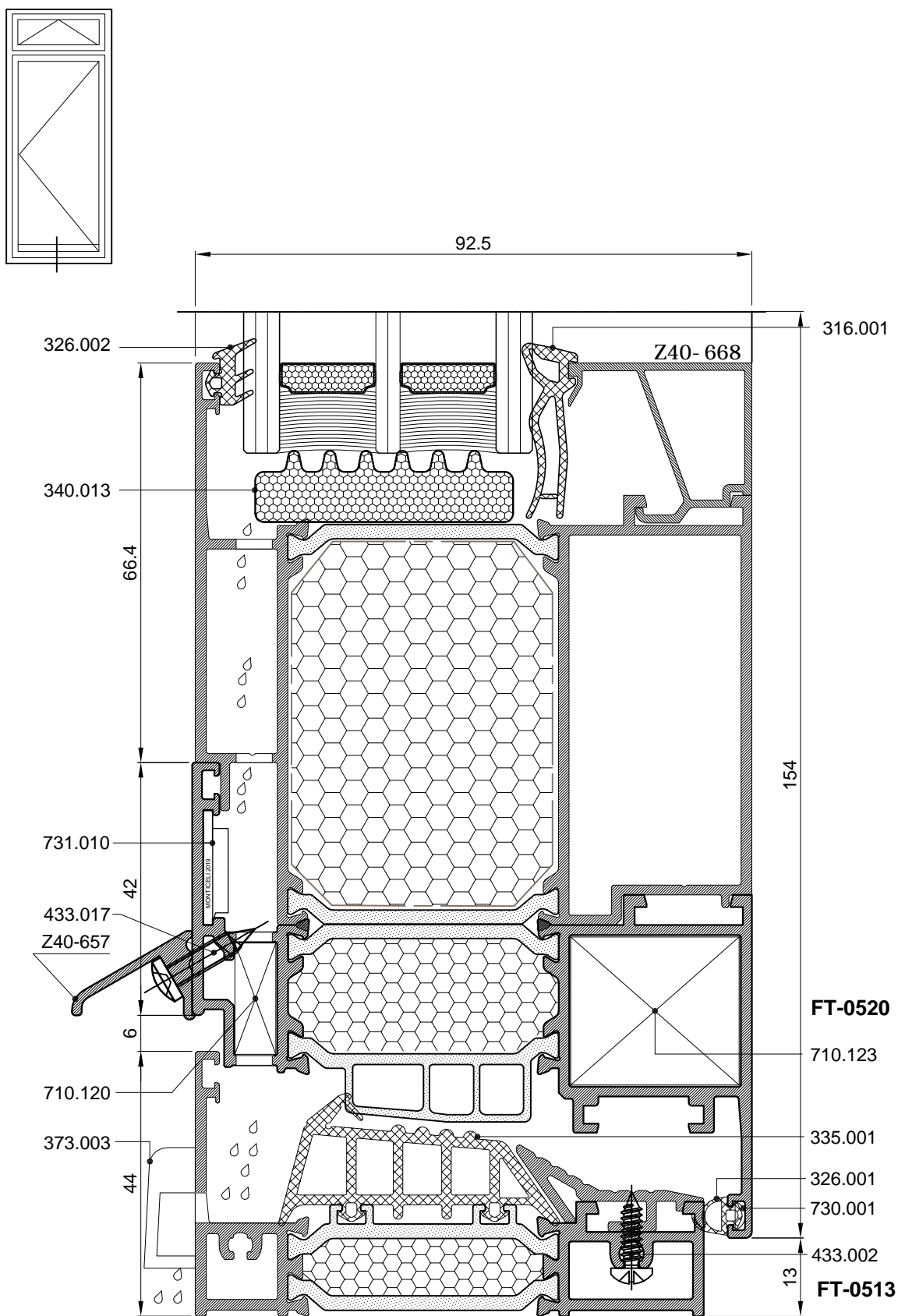


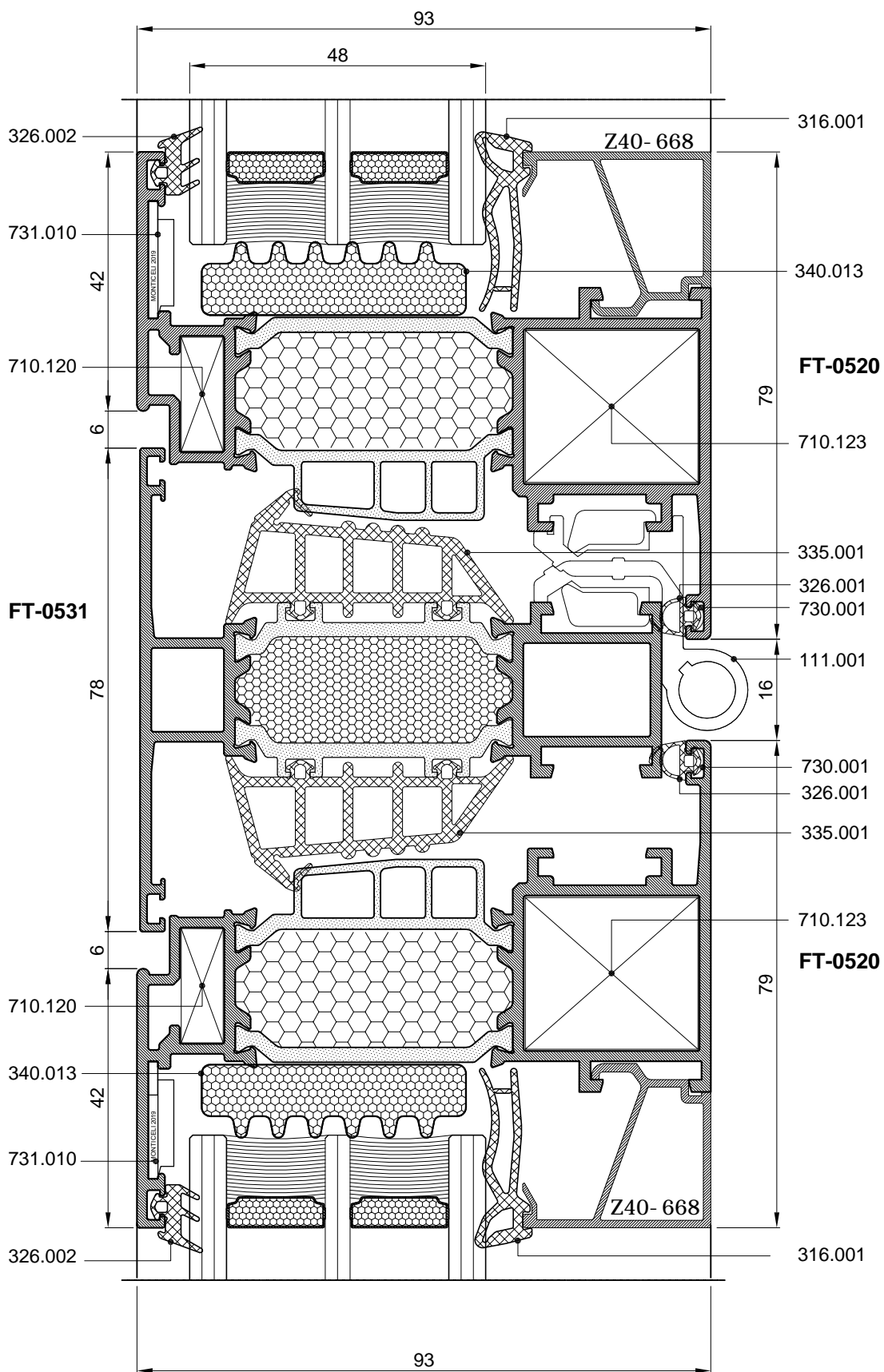
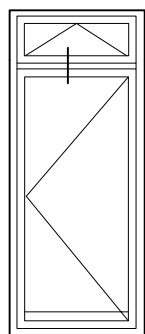
UNUTARNJI KUT 90°

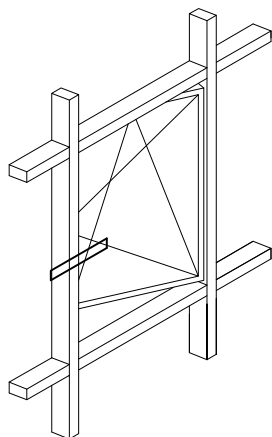




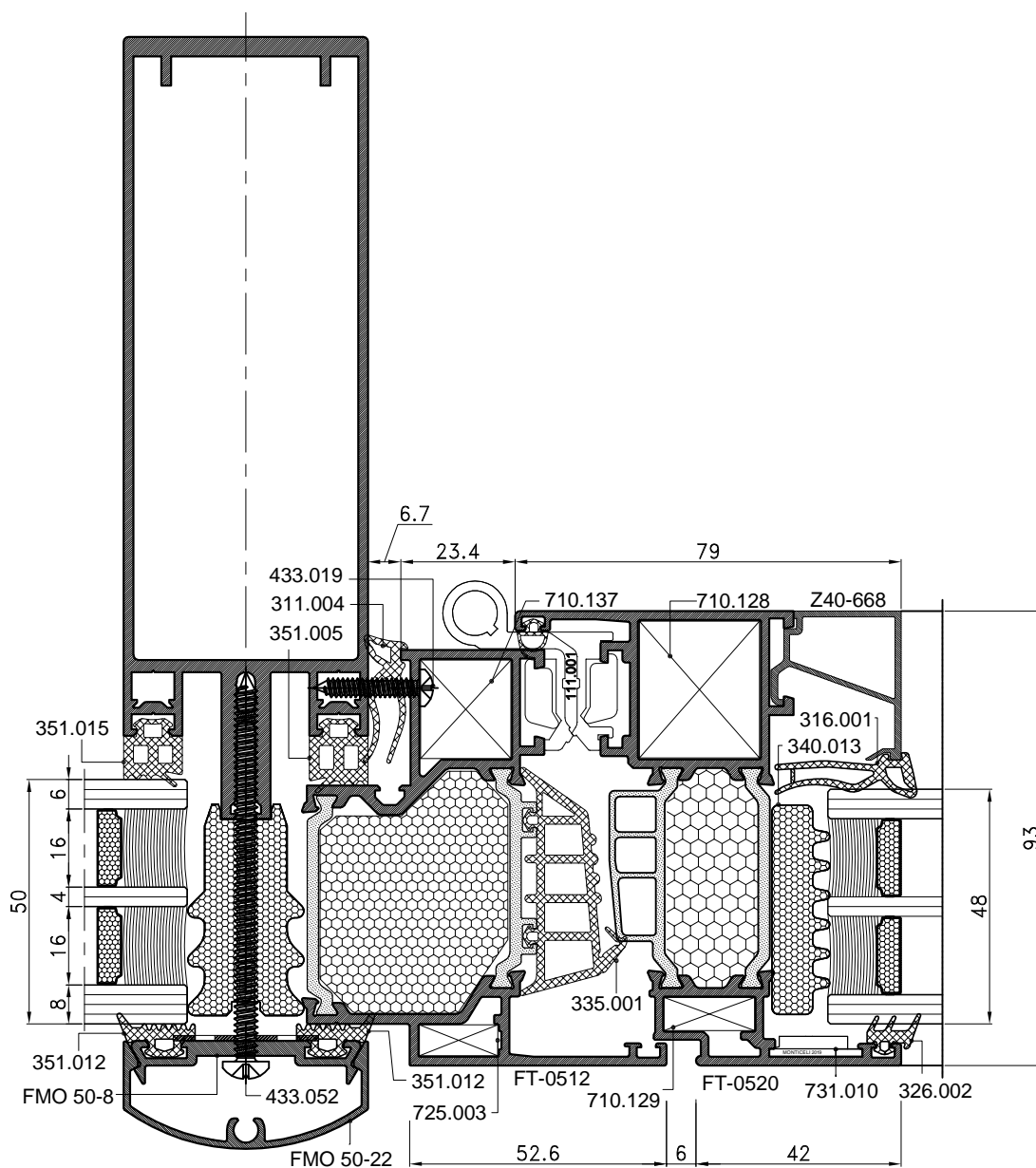


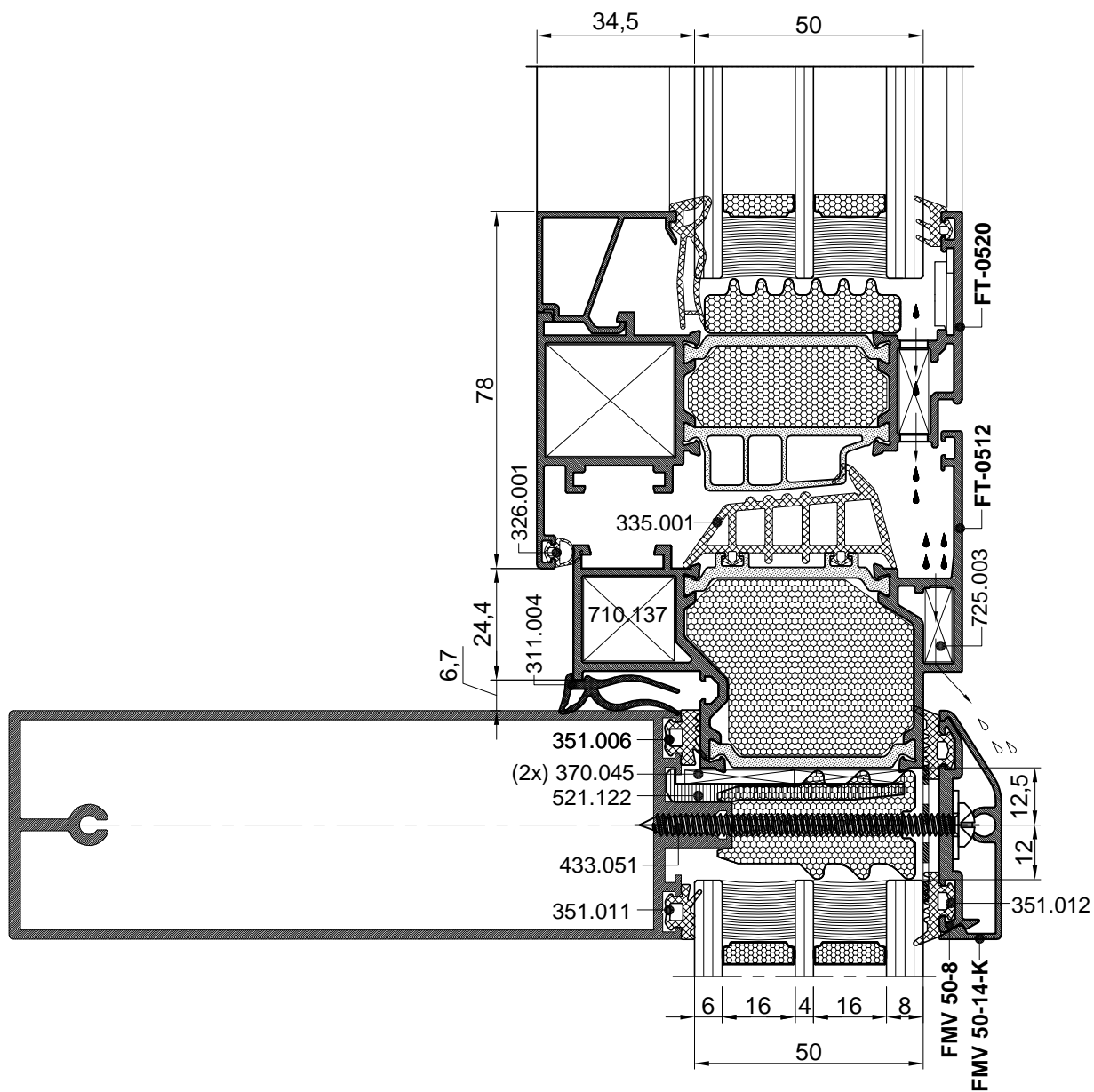
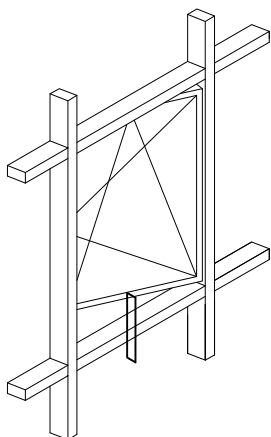




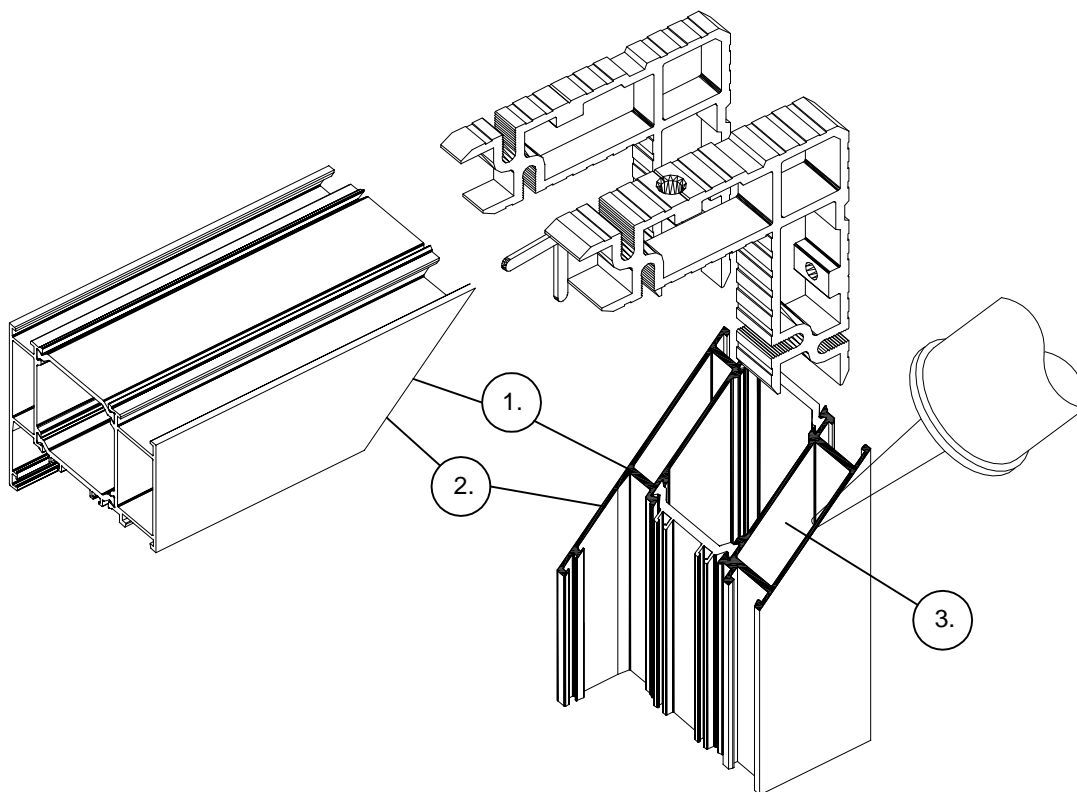


DETALJ PROZORA TERMO 85 S PLUS U FASADI 50 FK





## SPAJANJE PROFILA KUTNICIMA POD 90°



## POSTUPAK SPAJANJA PROFILA:

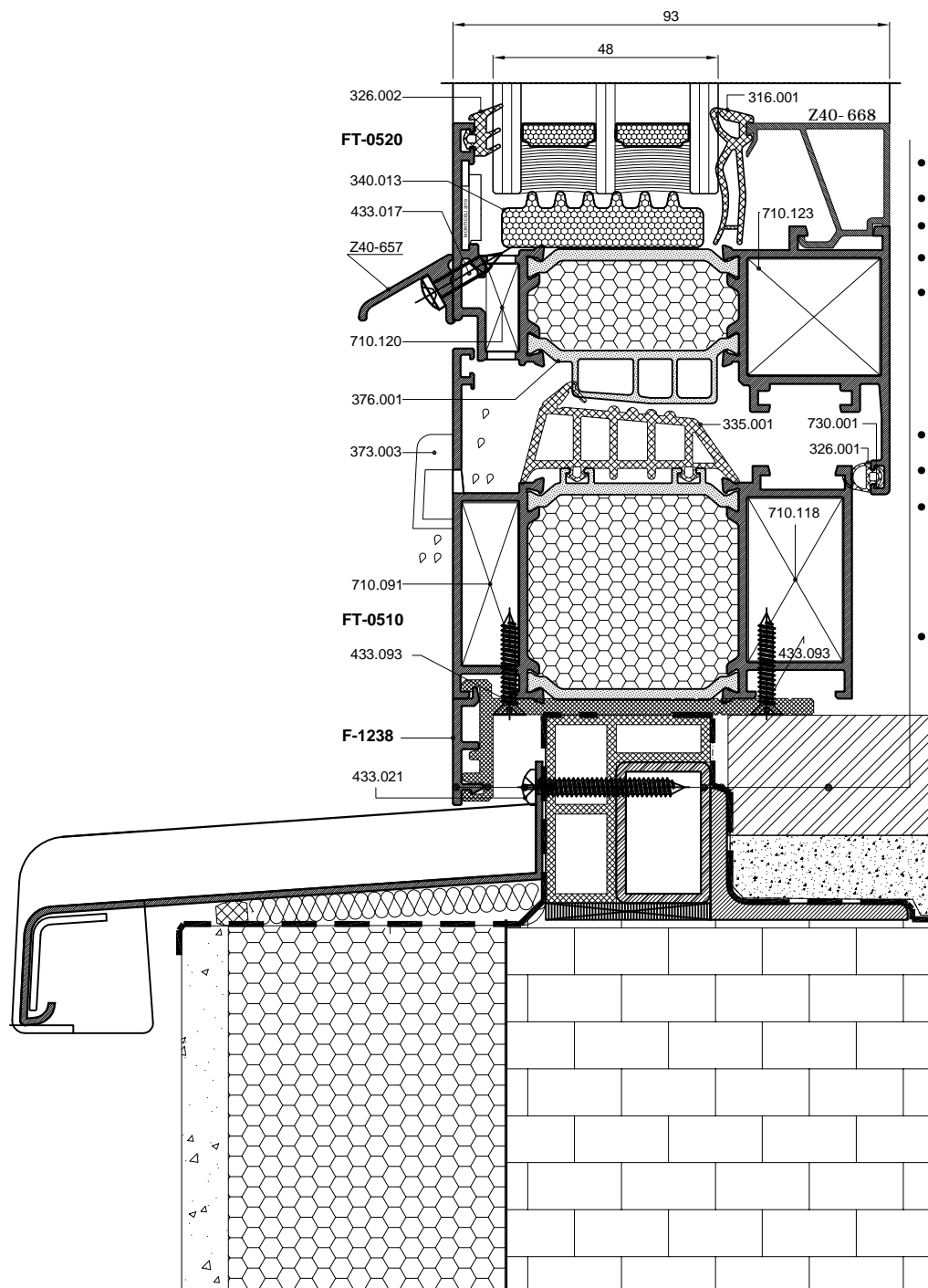
1. Površine koje se spajaju-rezove očistiti i odmastiti prikladnim sredstvom /npr. Sika Remover 208; Wurth-kat.br.:892 130 30/.
2. Premazati površine koje se spajaju ljepljivom za metal /npr. Sika Force 7851; Wurth-kat.br.:892 130 010/.
3. Ljepilo za metal ušpricati u komoru za kutnik - po opsegu komore
4. Profile s kutnikom izravnati i spojiti
5. Dio ljepljive tvari koji iscuri između rezova očistiti sredstvom za čišćenje i odmašćivanje /npr. Sika Remover 208; Wurth-kat.br.:892 130 30/.

## NAPOMENA:

Ovaj postupak spajanja profila primjenjiv je za sve Feal-ove kutnike i njima odgovarajuće komore:

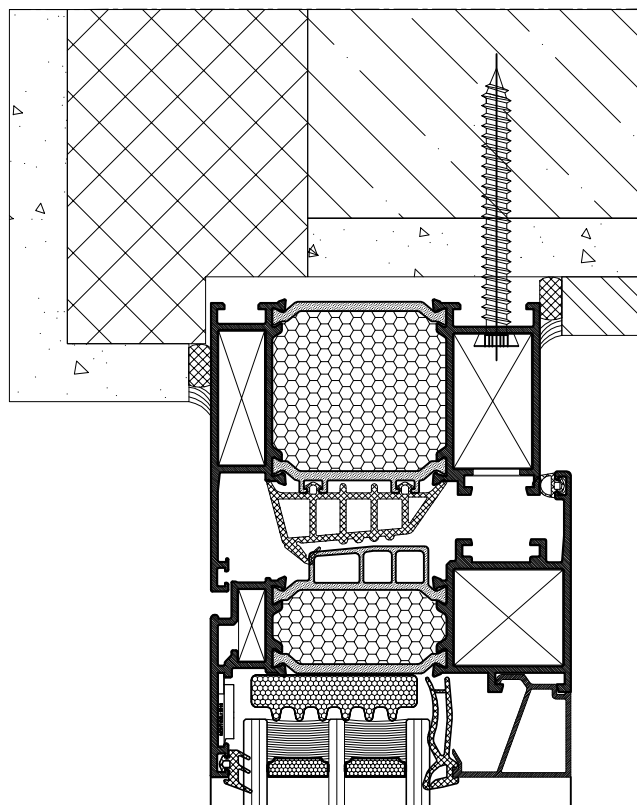
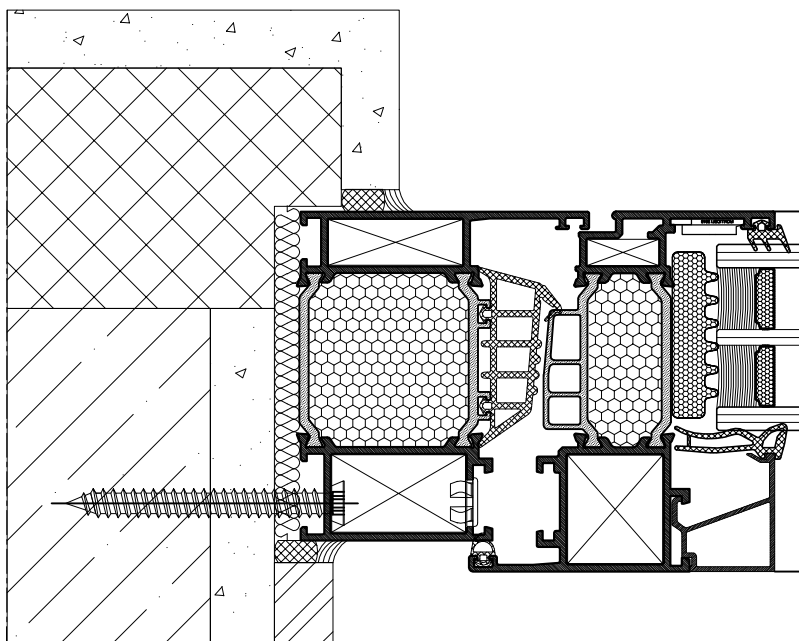
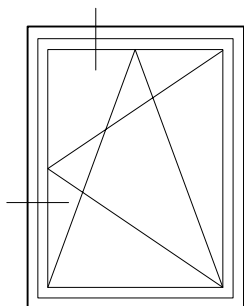
Lijepljenjem rezova i kutnika ljepljivima za metal osigurava se potrebna zrako- i vodonepropusnosti spoja kao i dodatna mehanička čvrstoća spoja.





- aluminjski profil
- PVC profil
- vijak za spajanje 3.9x32
- Aluminjska klupčica
- hidroizolacija (paropropusna i vodonepropusna folija)-za zaštitu termoizolacije od kapljevina s vana (npr. Knauf LDS 0.04)
- PVC distancer 374.037
- al. ili čel. pocinčani profil 20x30
- parna brana (paropropusna folija)-za sprječavanje prolaska vodene pare iz prostorije u termoizolaciju (npr. Knauf LDS 100)
- unutarnja obrada i završni izgled

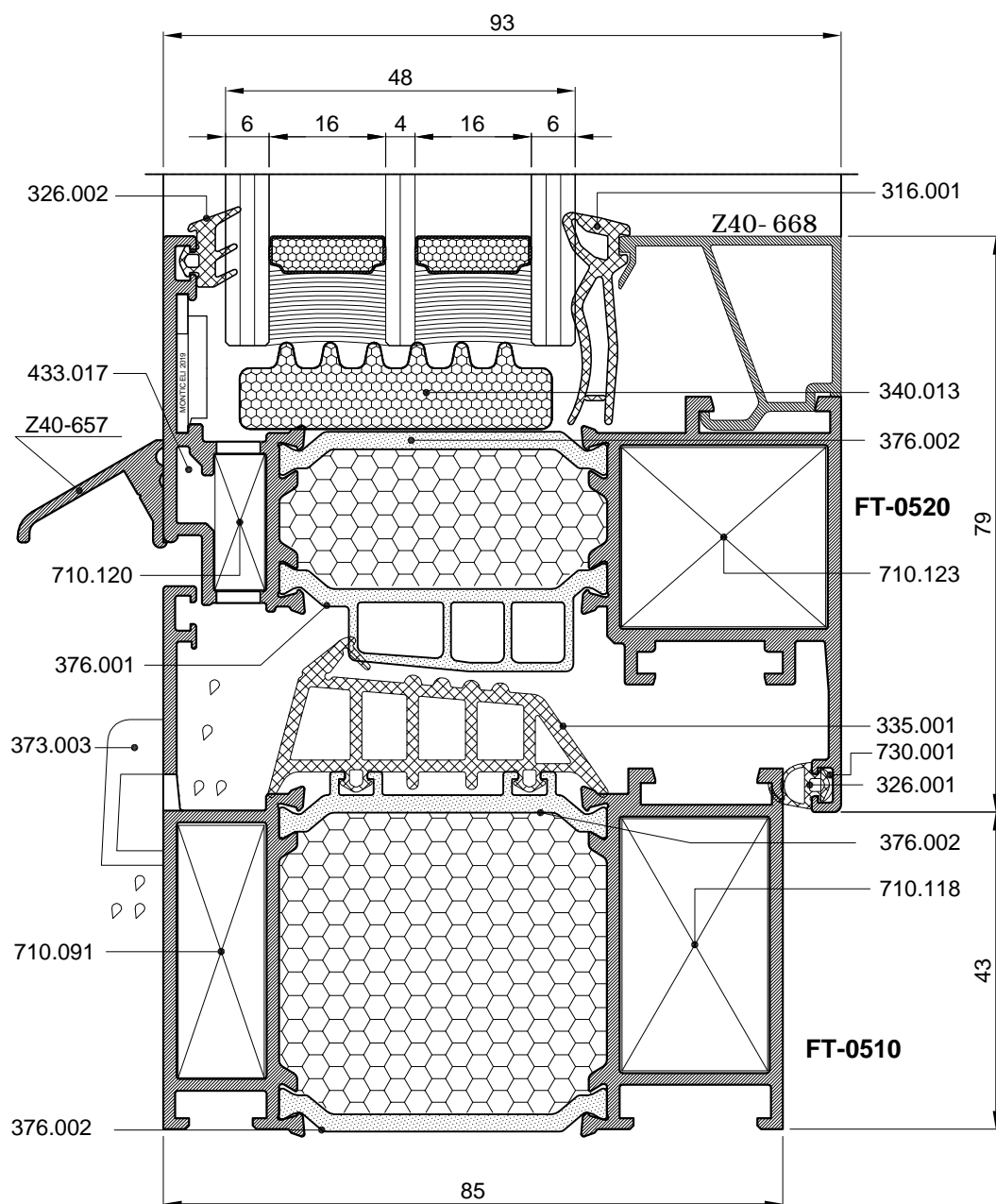
## DETALJI UGRADNJE

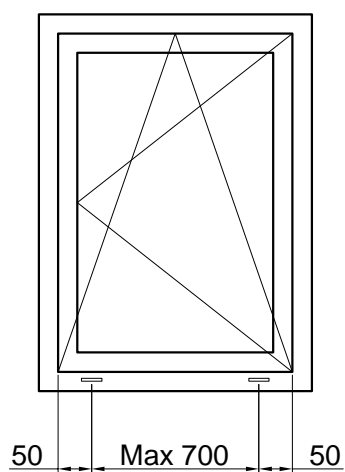


## ODVOD KAPLJEVINA IZ PROZORA

Kapljevine koje uđu u krilo prozora između brtve i ispune vode se kroz otvor na brtvi i profilu krila prema vani. Dio kapljevina iz krila i kapljevine s vana ulaze u predviđeni prostor u profilu rama te ga napuštaju kroz otvore u profilu koji se maskiraju čepom 2328.

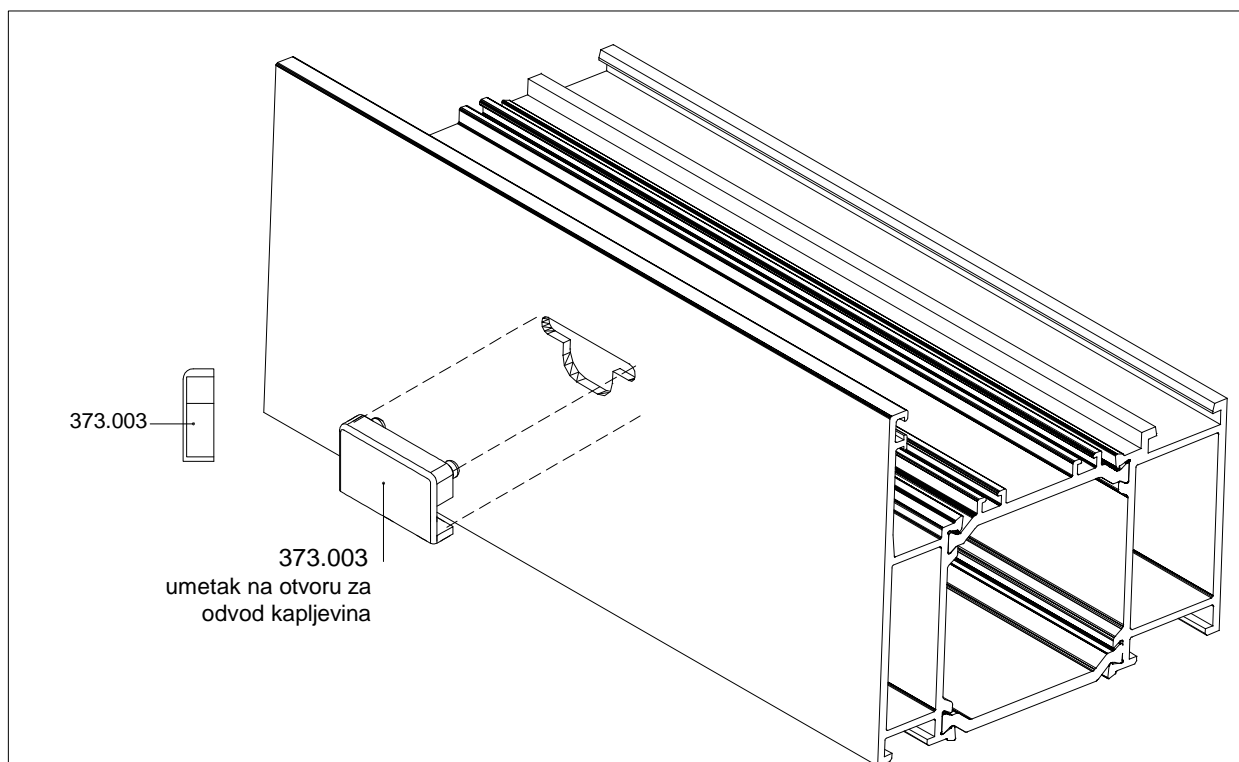
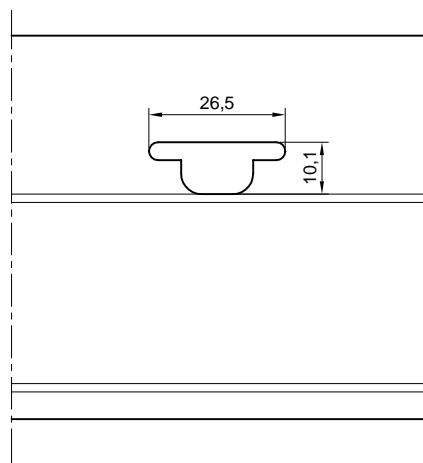
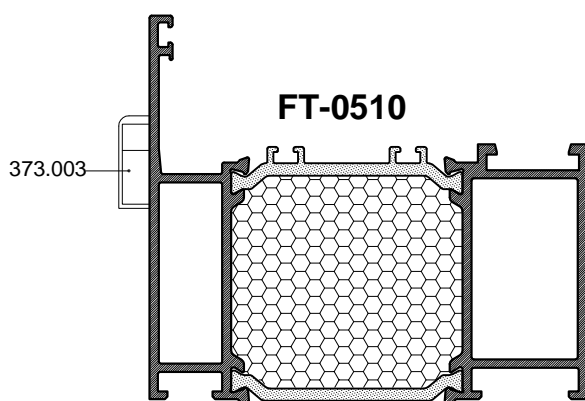
Napomena: Otvore na profilu rama uvijek držati prohodnim.

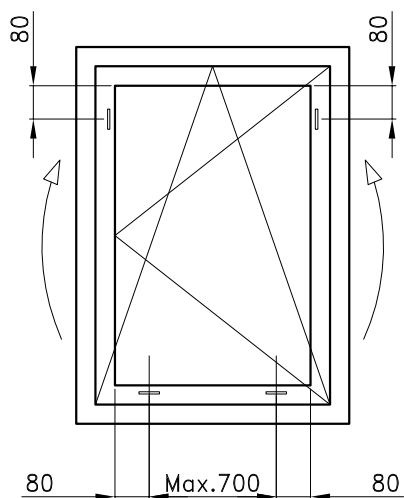




OBRADA NA PROFILU FT-0510 RADI ODVODA KAPLJEVINA

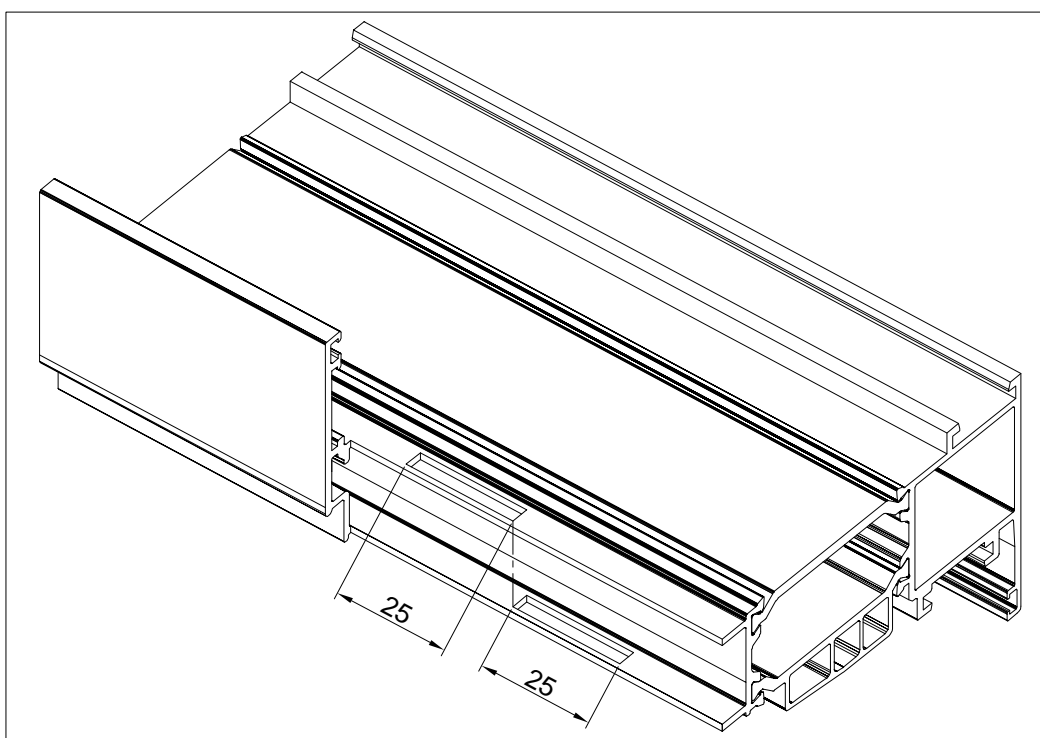
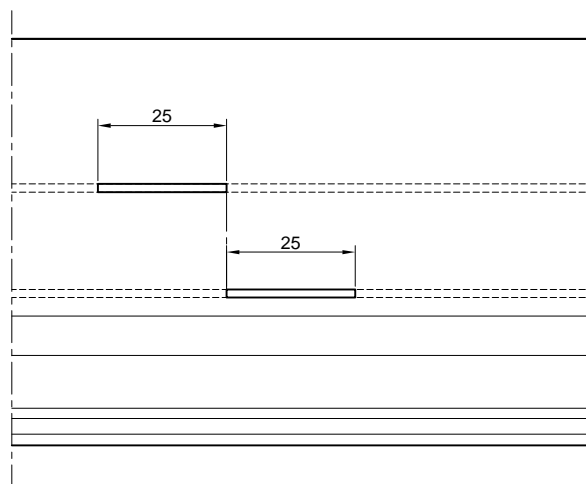
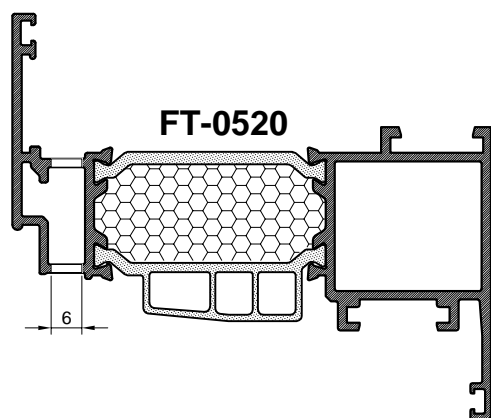
- obrada donjeg pojasa krila /štancanjem/
- 373.003 - pvc umetak na otvoru za odvod kapljevina



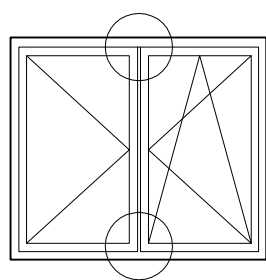


OBRADA NA PROFILU FT-0203 H RADI ODVODA KAPLJEVINA I VENTILIRANJA PROZORA

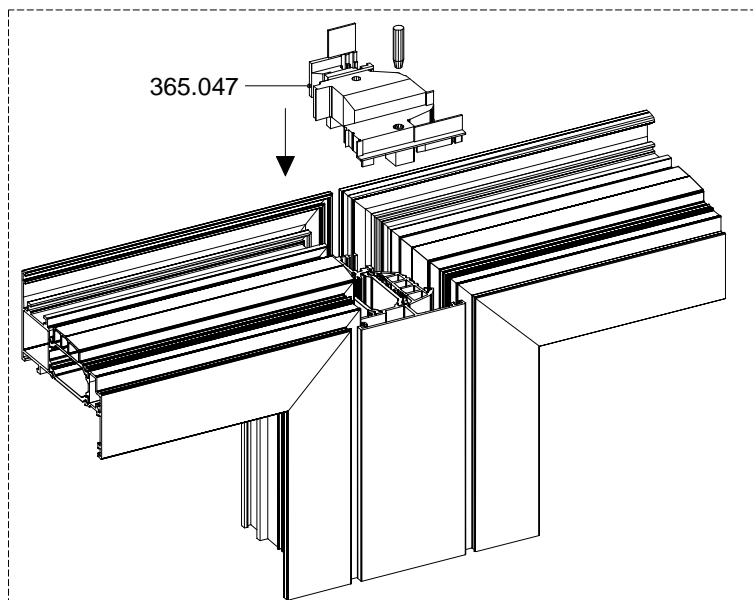
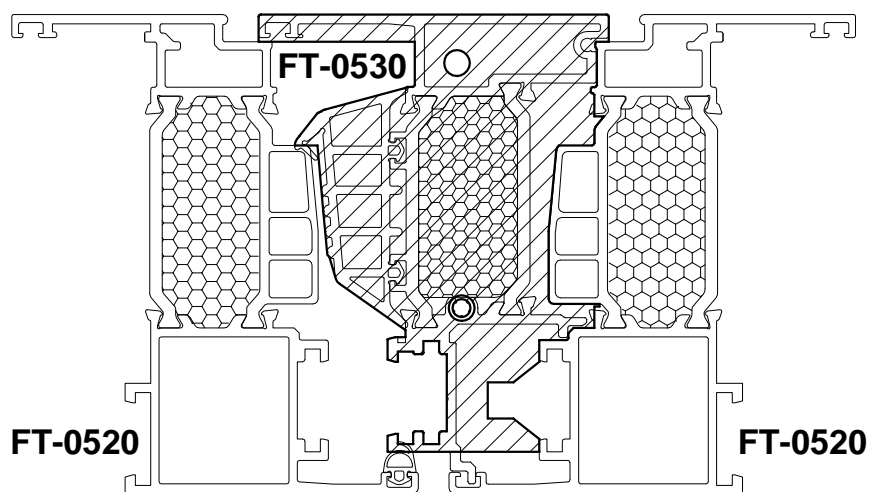
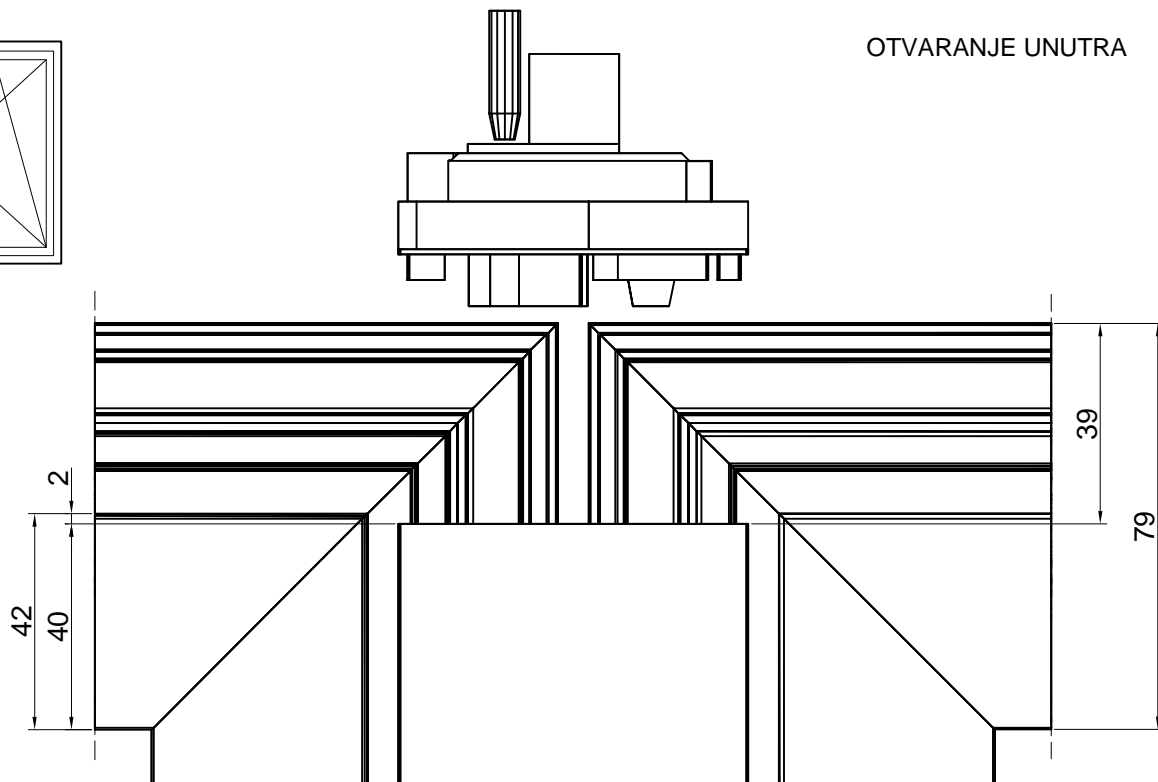
- obrada donjeg pojasa krila /štancanjem/
- obrada okomitih pojasa krila /štancanjem/
- usljed probijenih otvora unutar prozora dolazi do uspostave strujanja zraka i isušivanja mogućih kapljevina

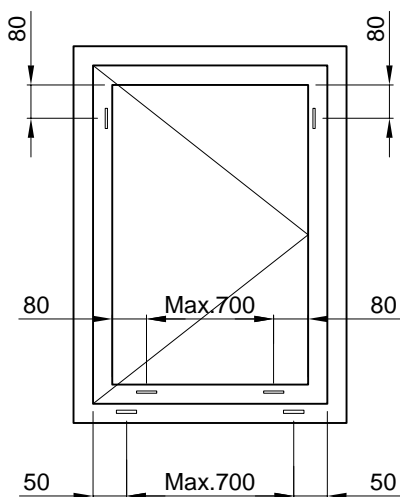


364.012 - UMETAK ZA PROFIL FT-0211 H KOD DVOKRILNOG OTVARANJA



OTVARANJE UNUTRA

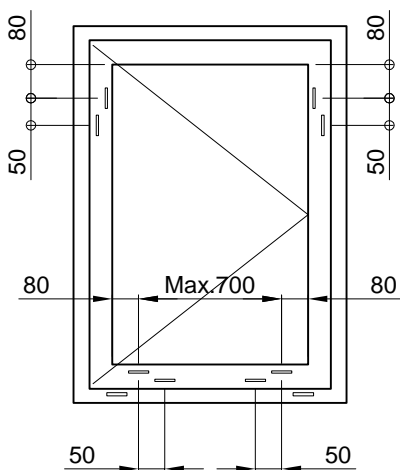
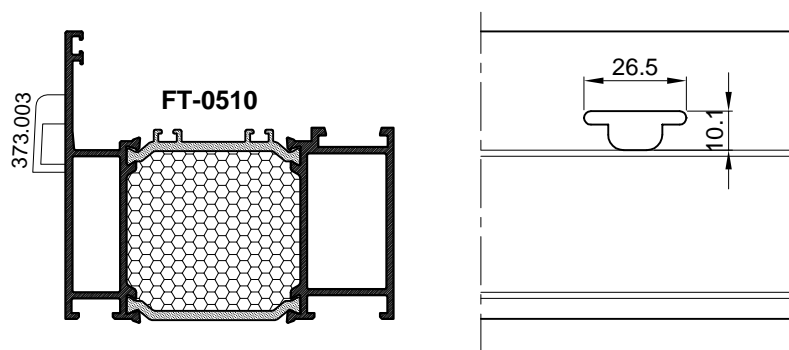




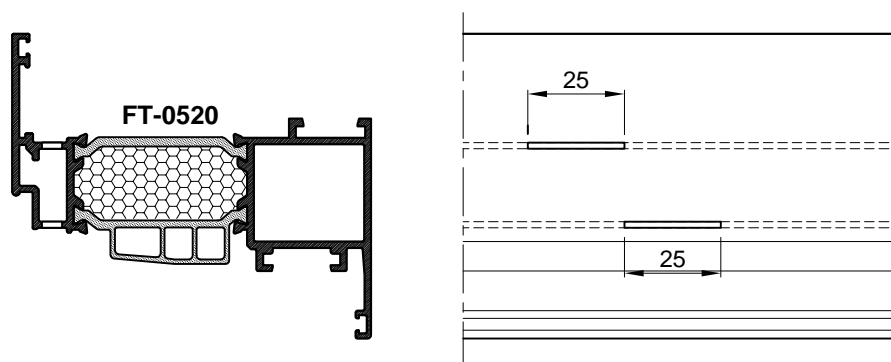
OBRADA NA OKVIRU I KRILU PROZORA

- IZVOD KAPLJEVINA IZ PROZORA
- VENTILIRANJE PROZORA

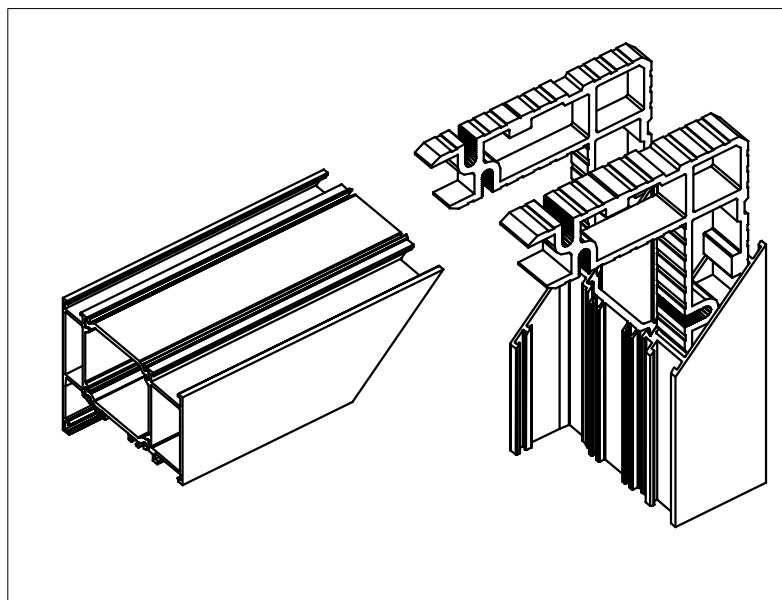
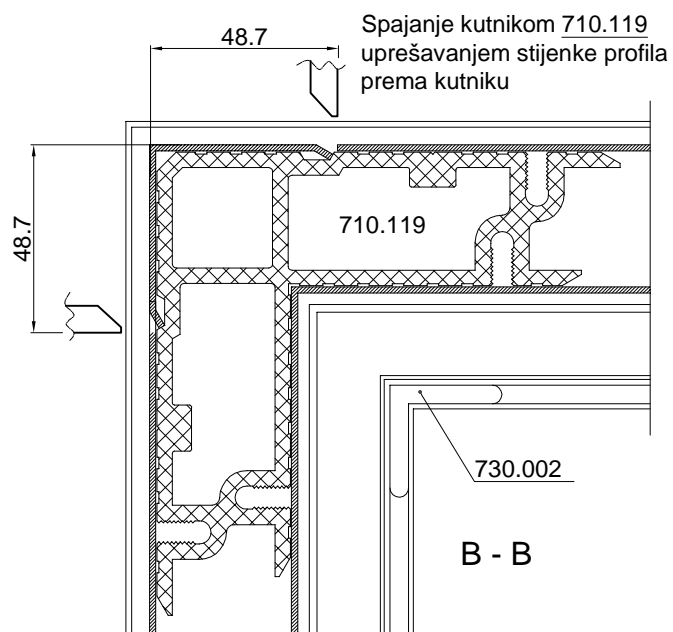
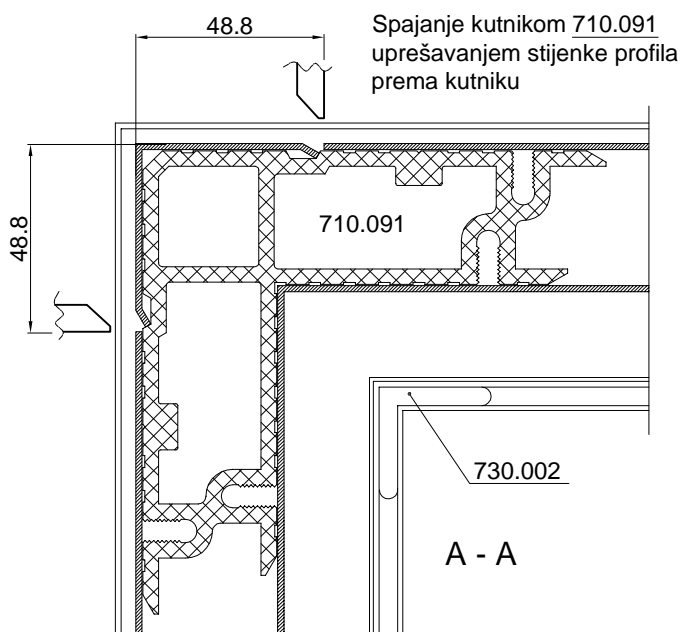
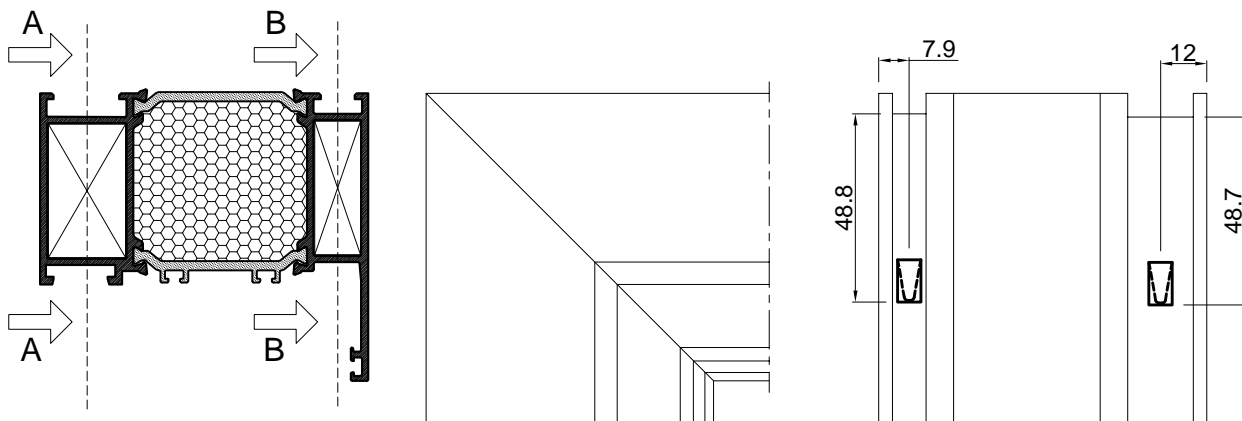
OBRADA NA OKVIRU



OBRADA NA KRILU

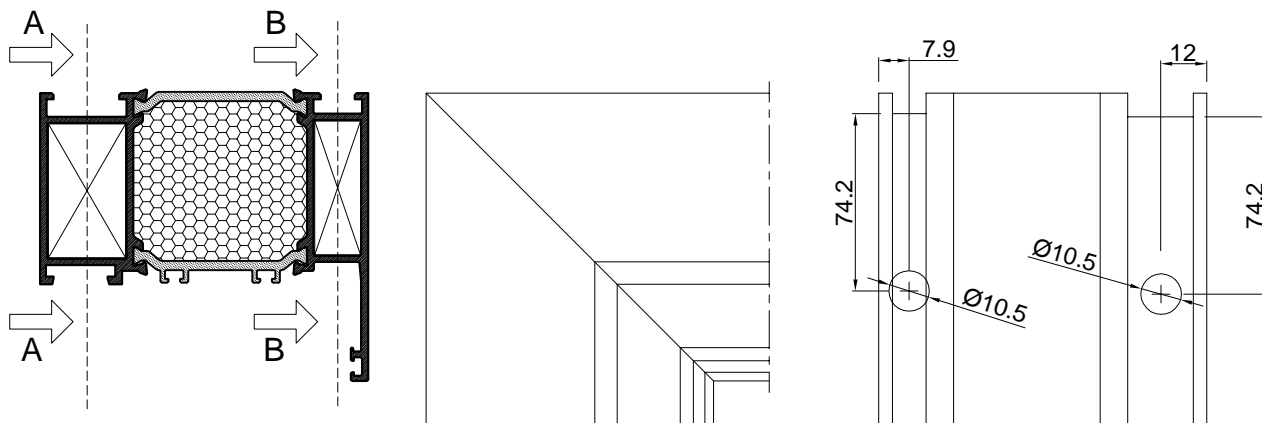


## UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU



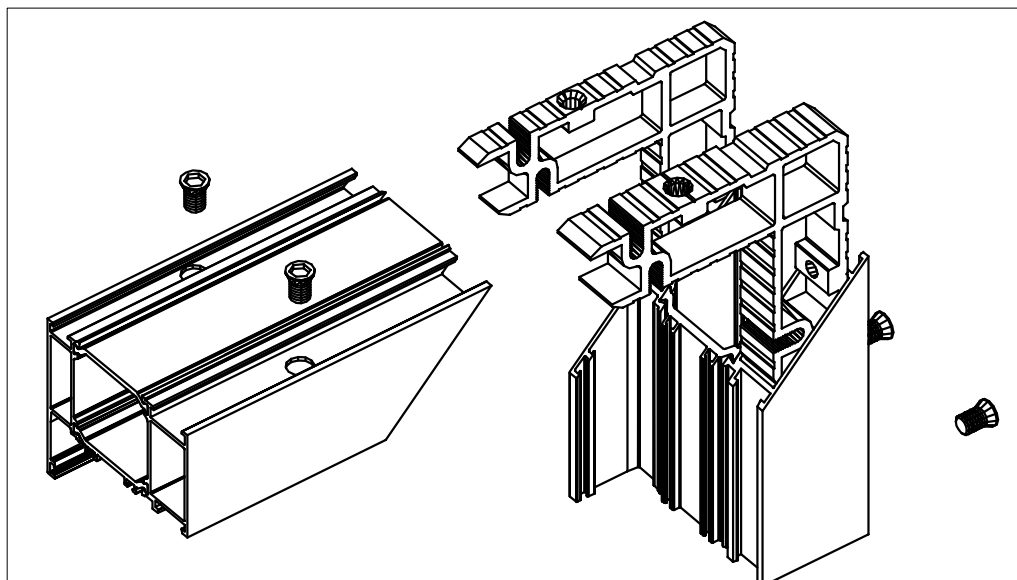
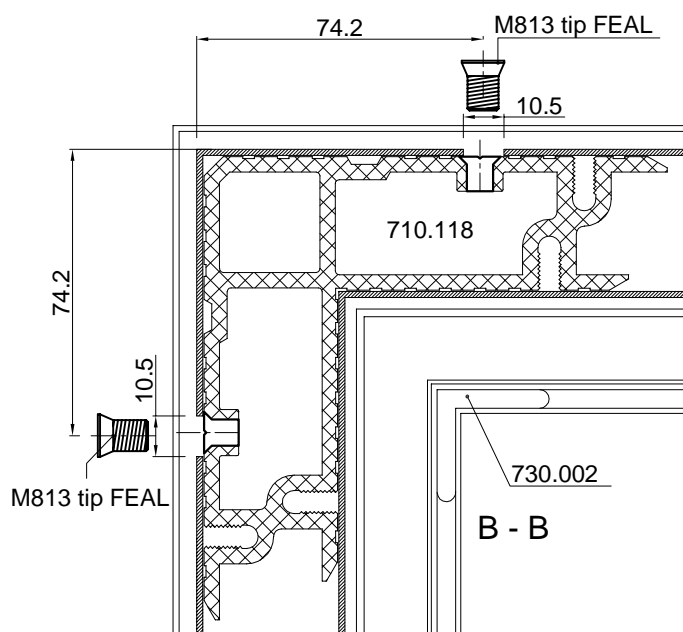
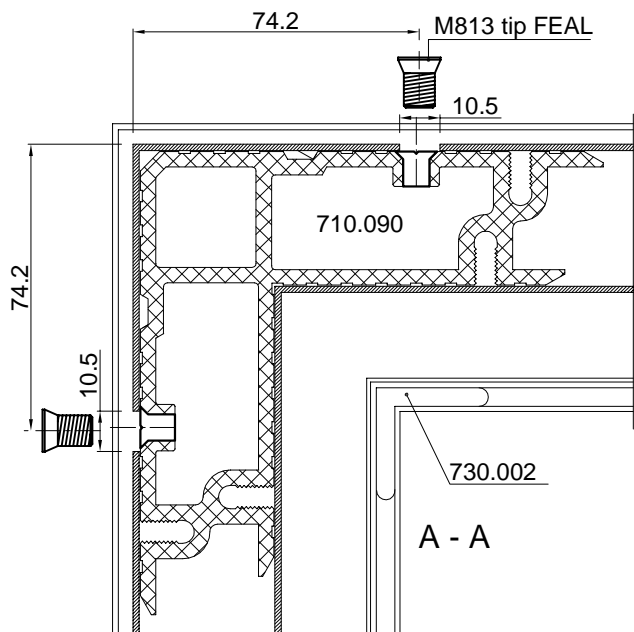


VEZIVANJE KUTNIKOM POMOĆU VIJKA M8

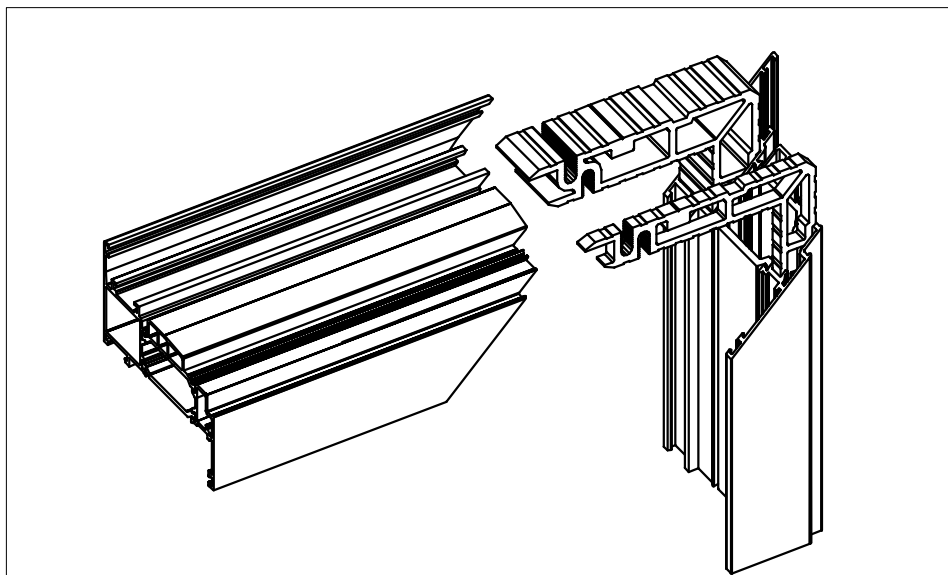
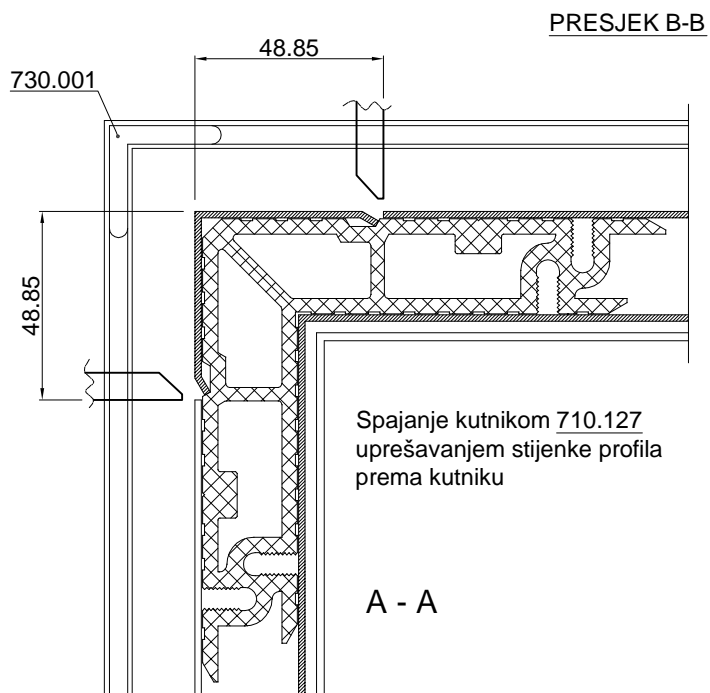
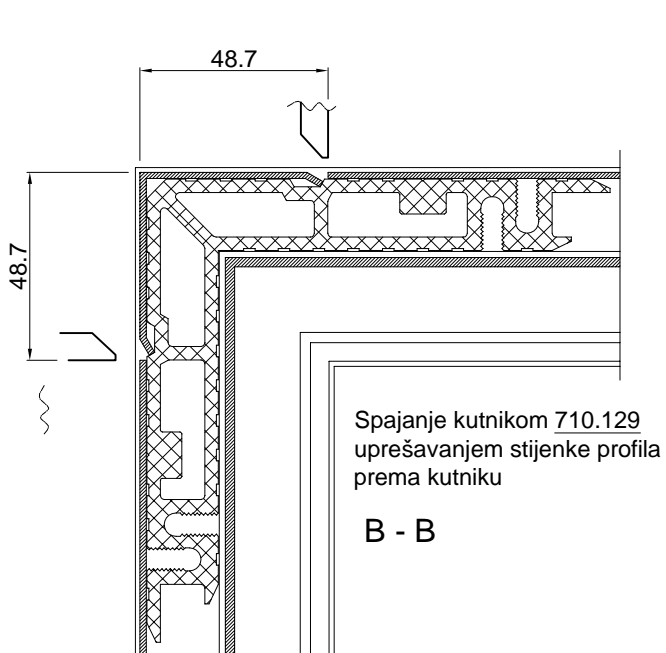
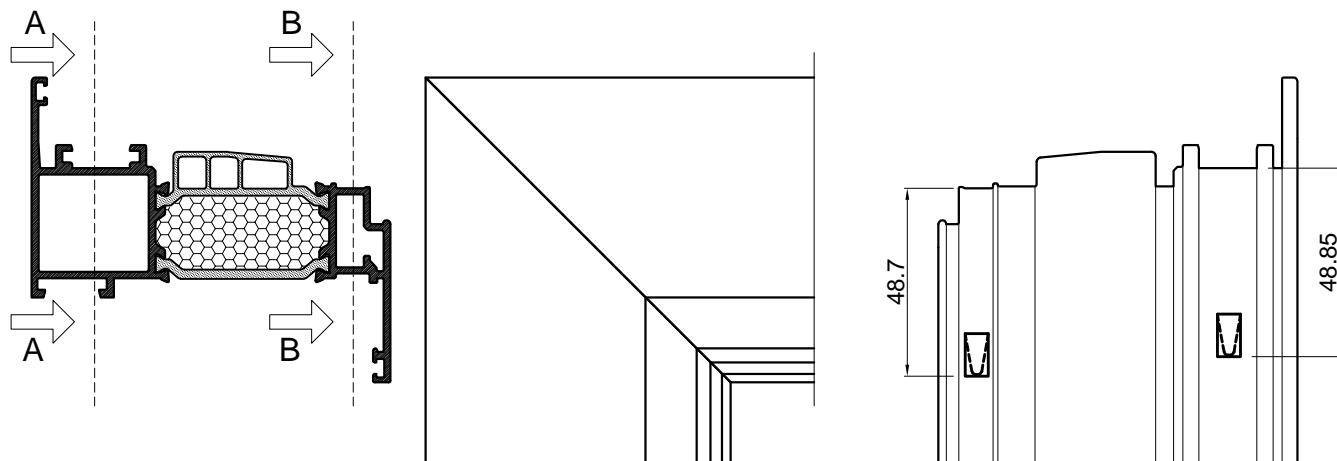


Spajanje kutnikom 710.090 vijcima M8x13 -tip Feal

Spajanje kutnikom 710.118 vijcima M8x13 -tip Feal

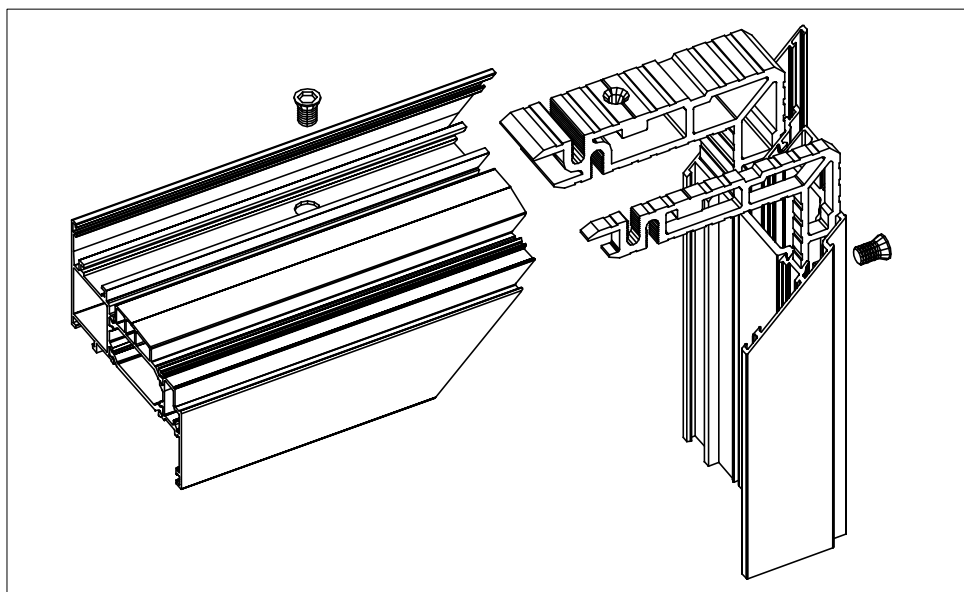
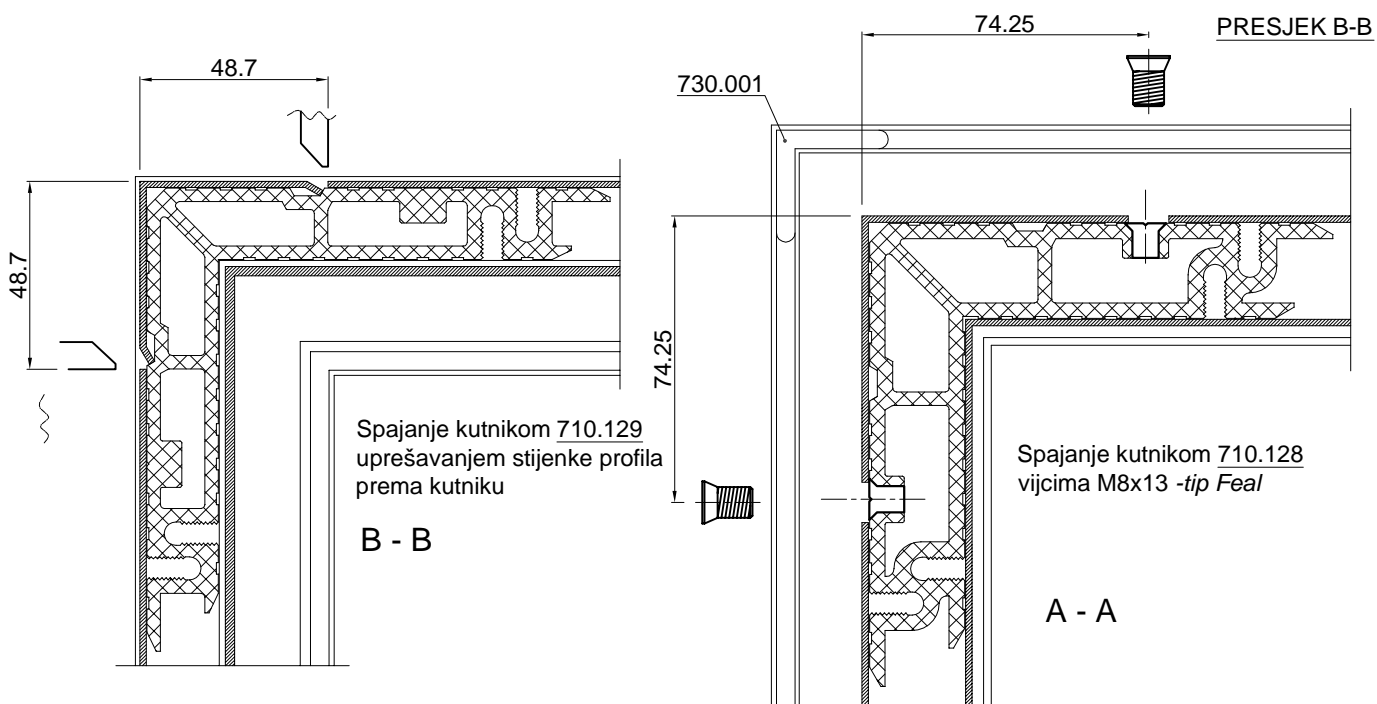
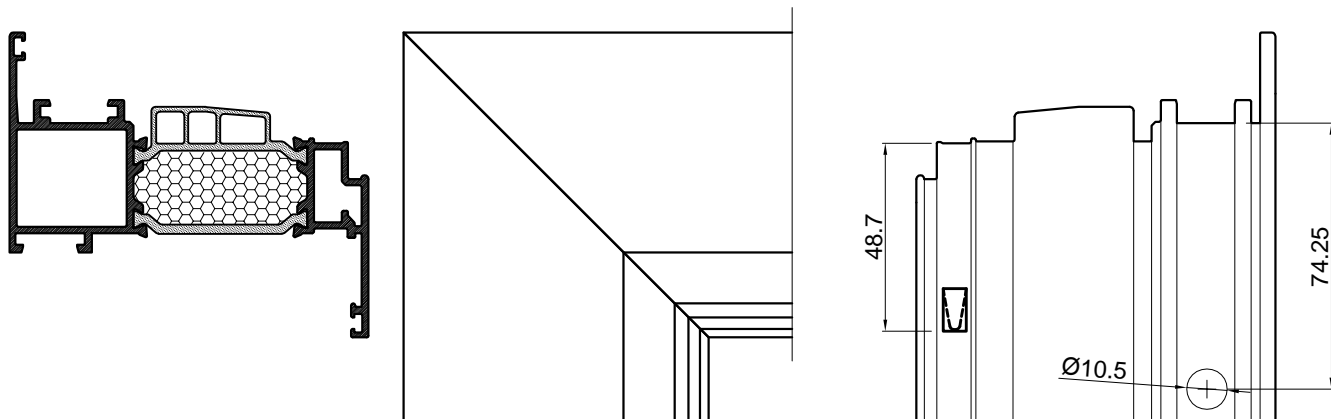


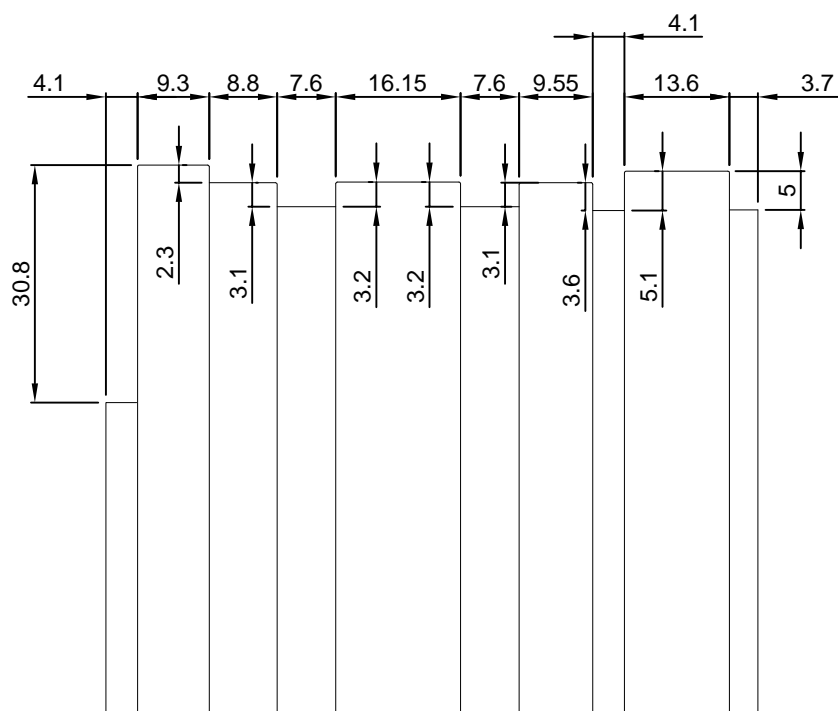
UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU



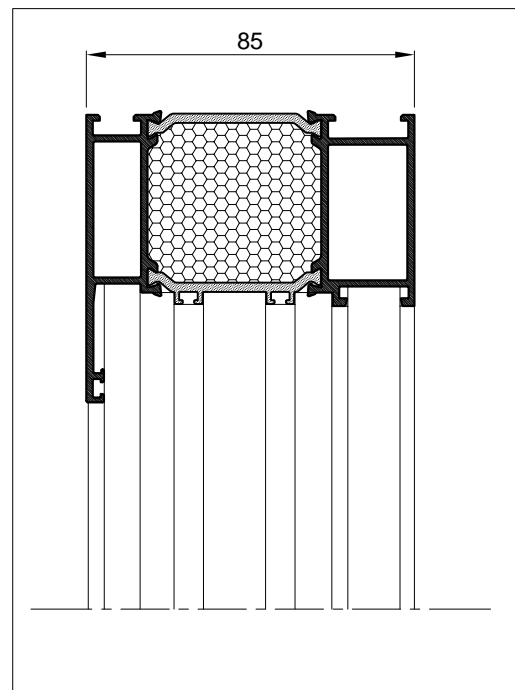
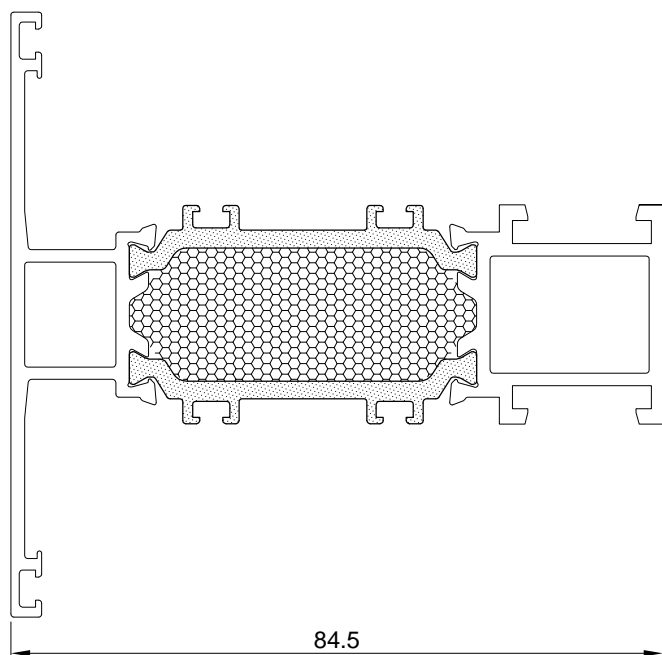
## UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU

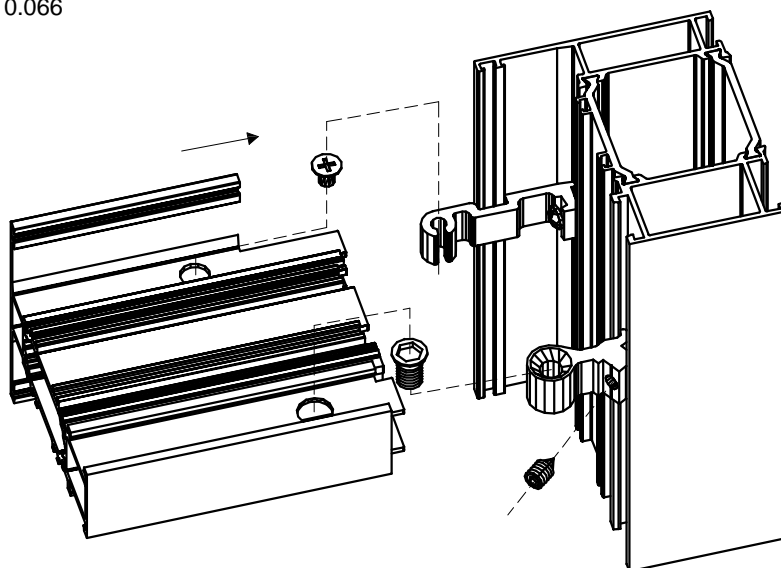
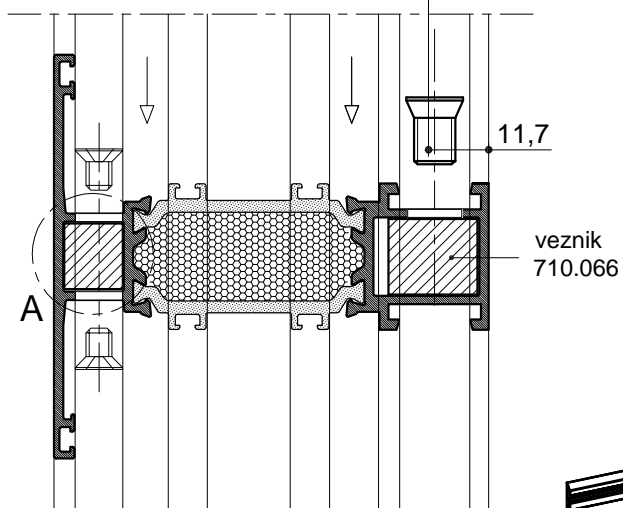
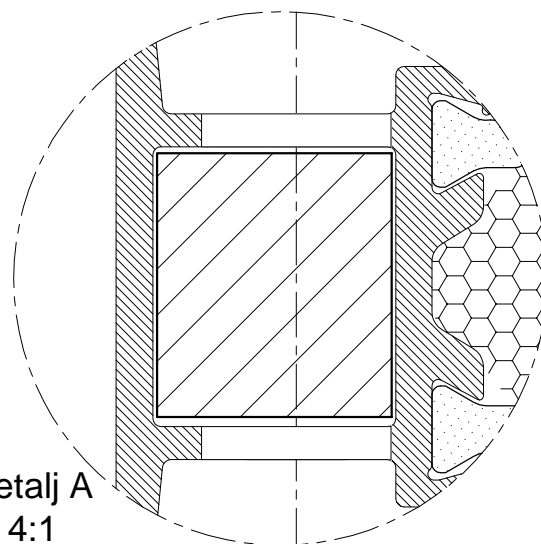
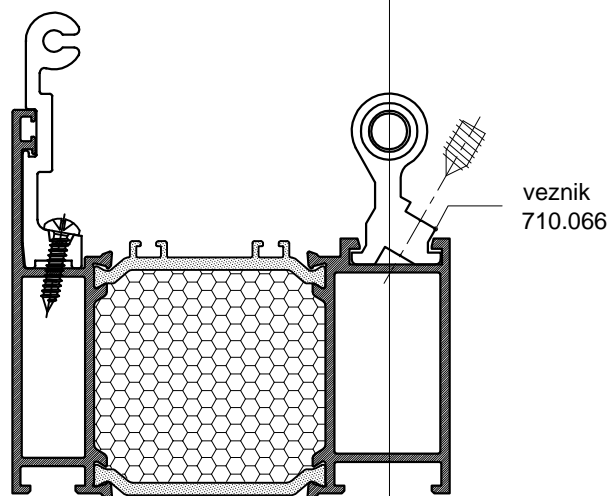
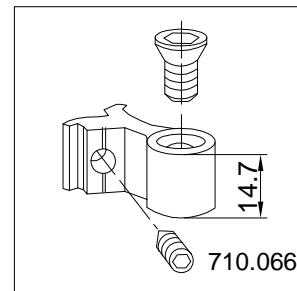
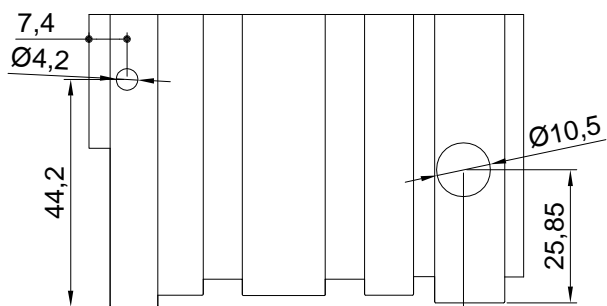
PRESJEK A-A

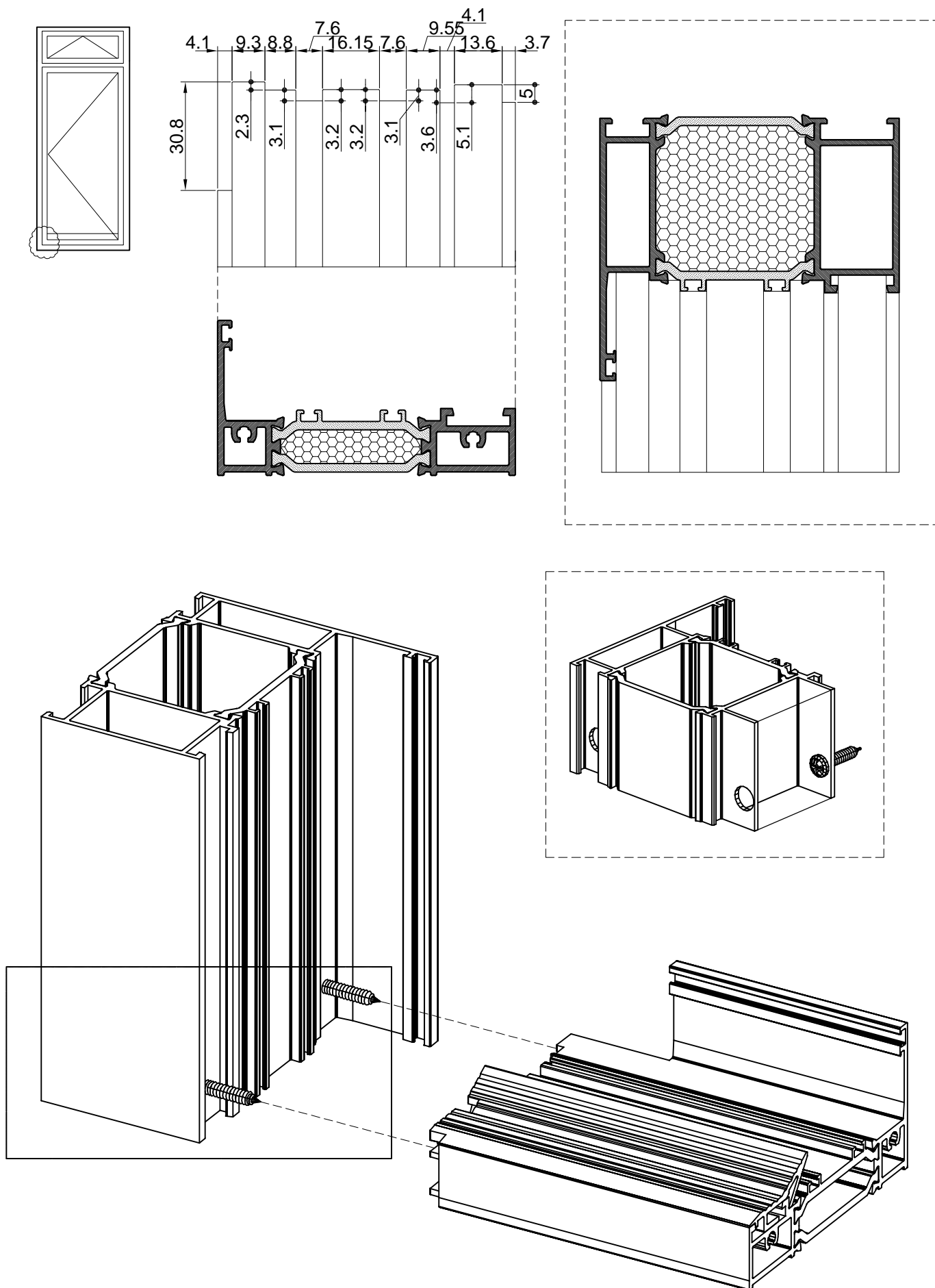


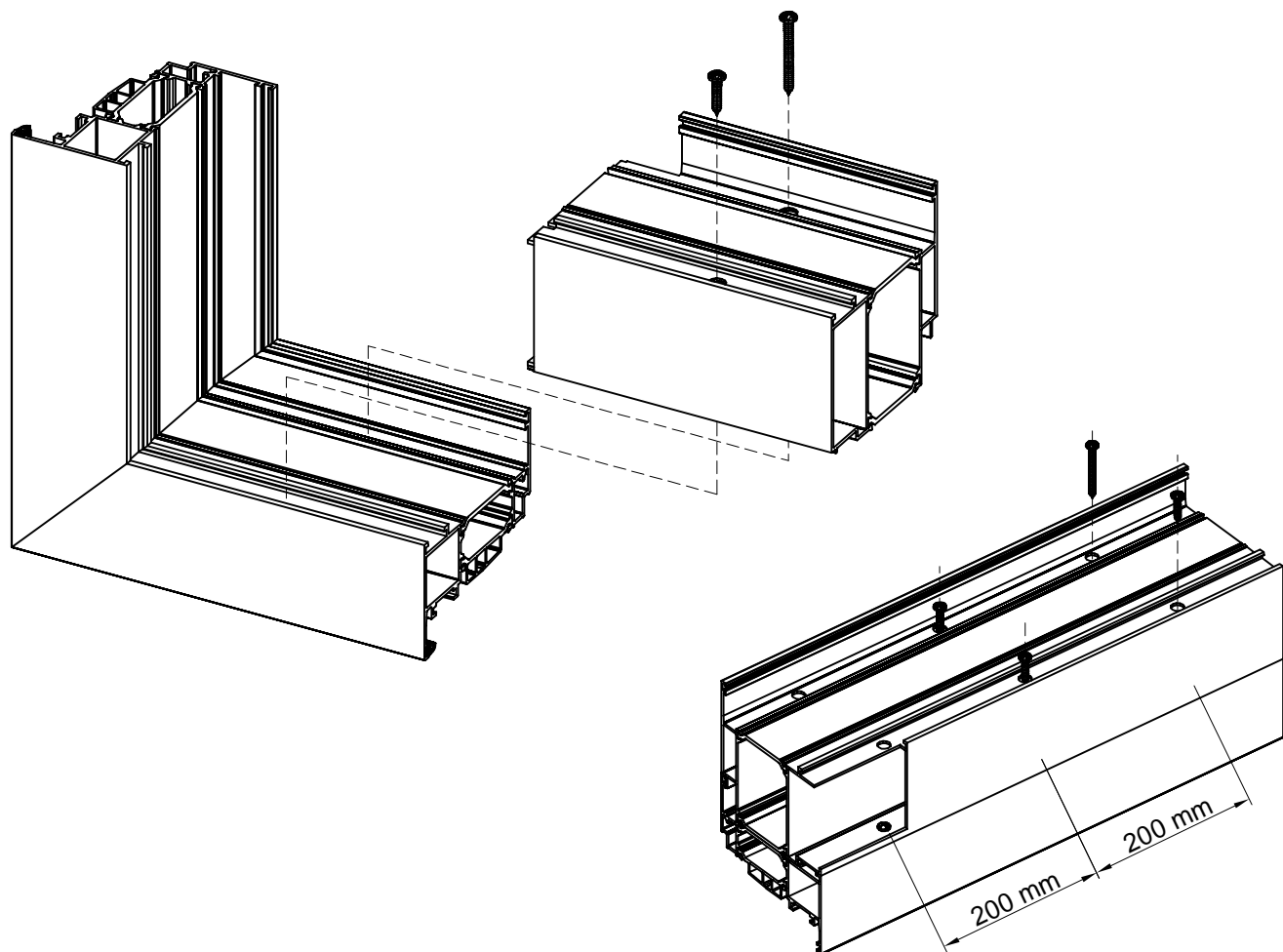
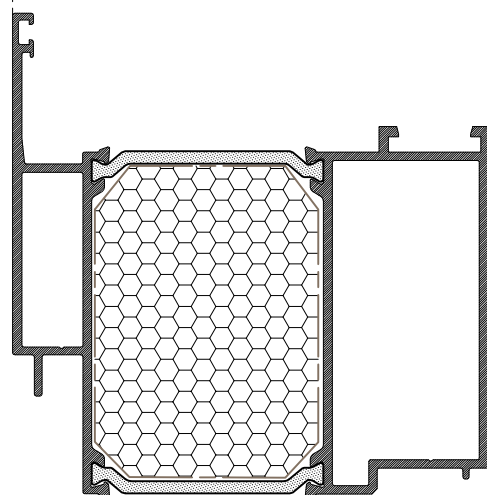
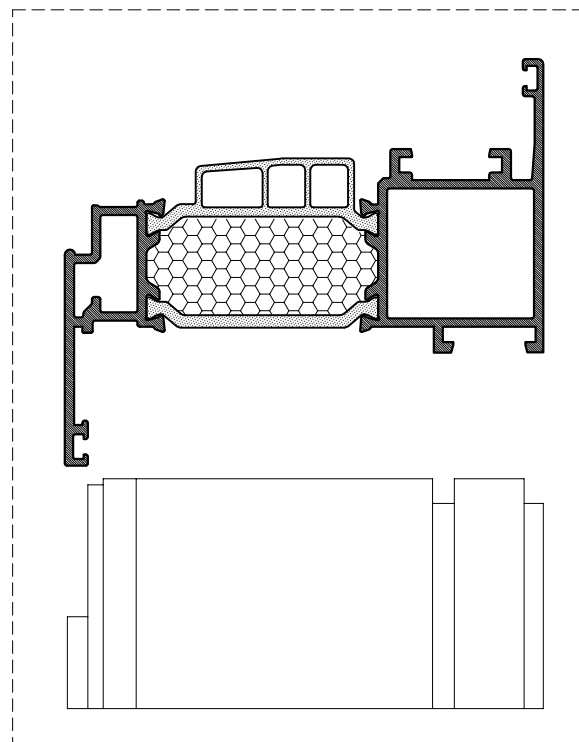
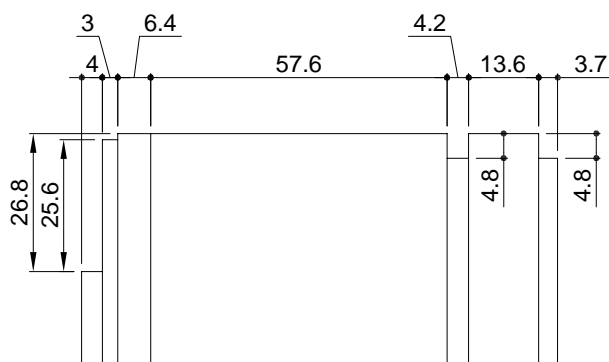
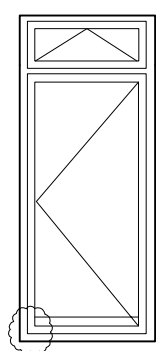


OBRADA PROFILA PREČKE FT-0531  
PREMA PROFILU RAMA

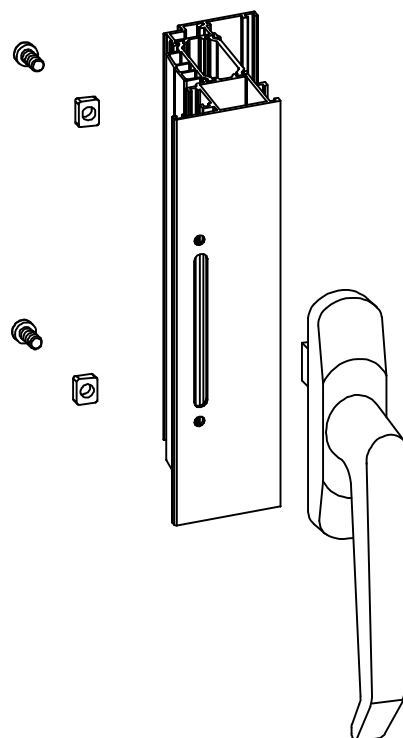
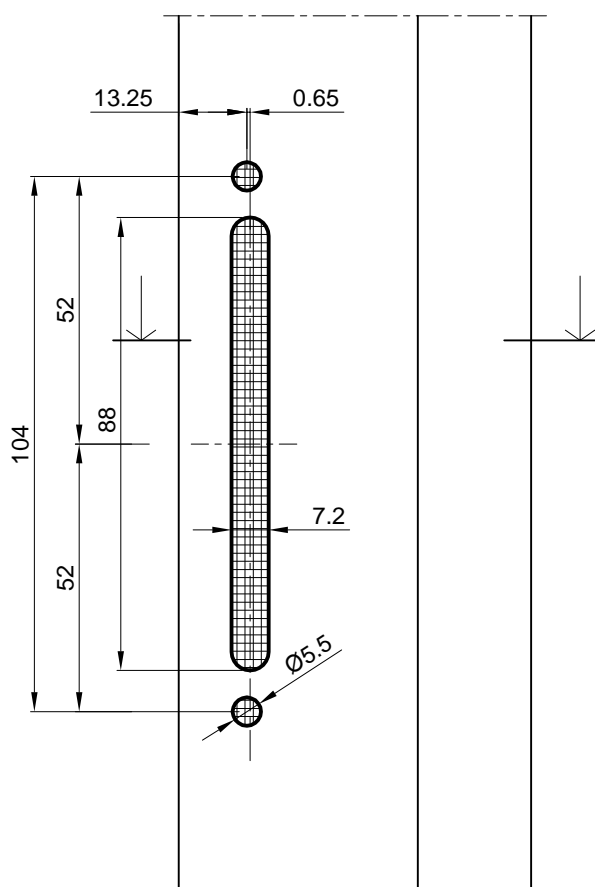




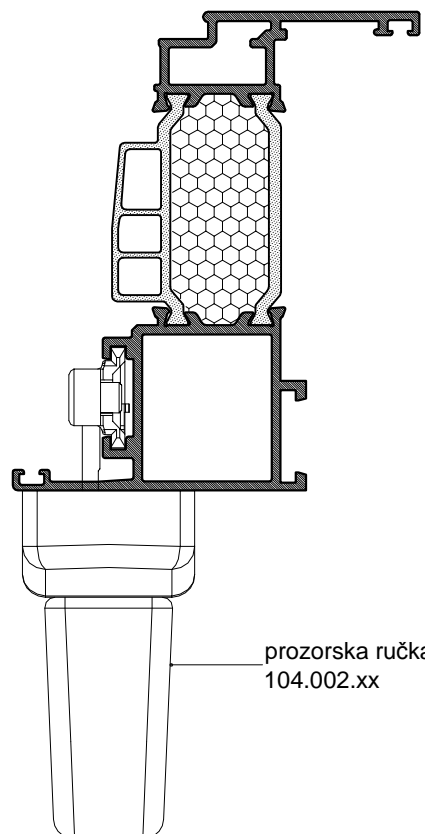
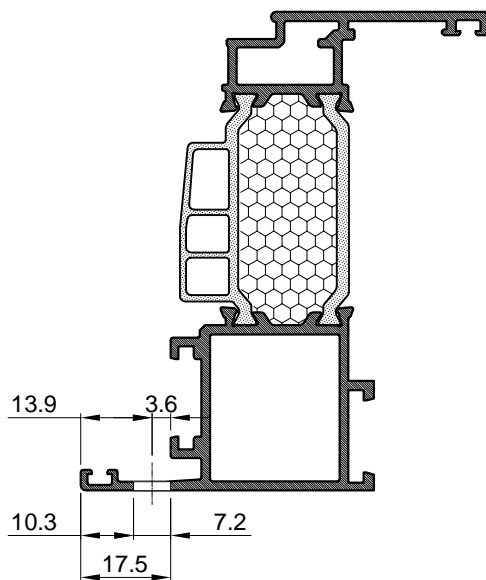




## OBRADA PROZORSKOG PROFILA KRILA ZA UGRADNJU RUČKE

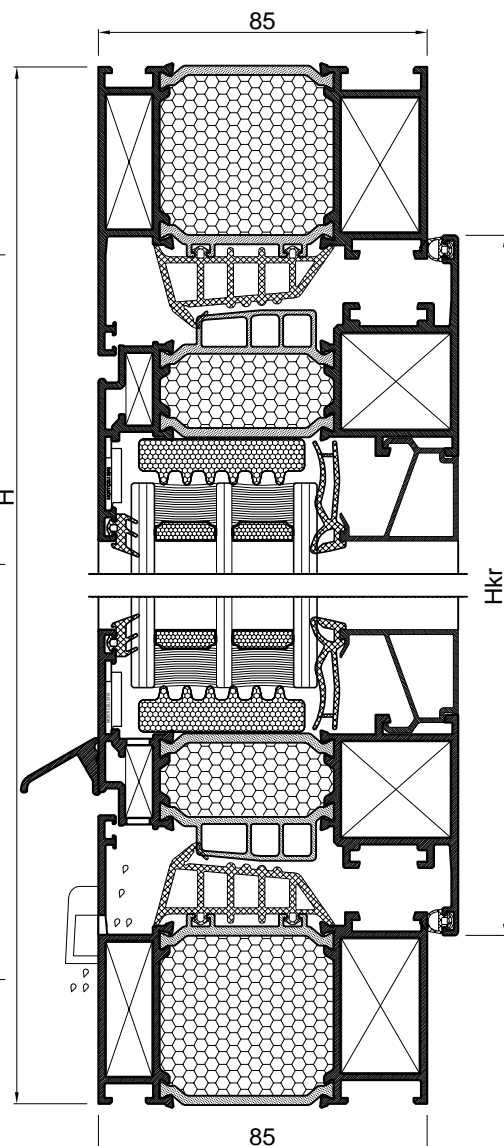
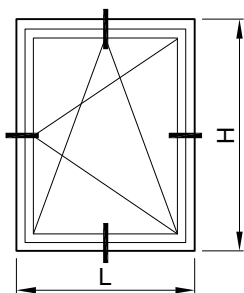


FT-0203 H


 prozorska ručka  
104.002.xx

- ZA ZAOKRETNO I OTKLOPNO-ZAOKRETNO OTVARANJE
- OBRADA JE ISTA ZA SVE PROFILE KRILA ZA PROZORE



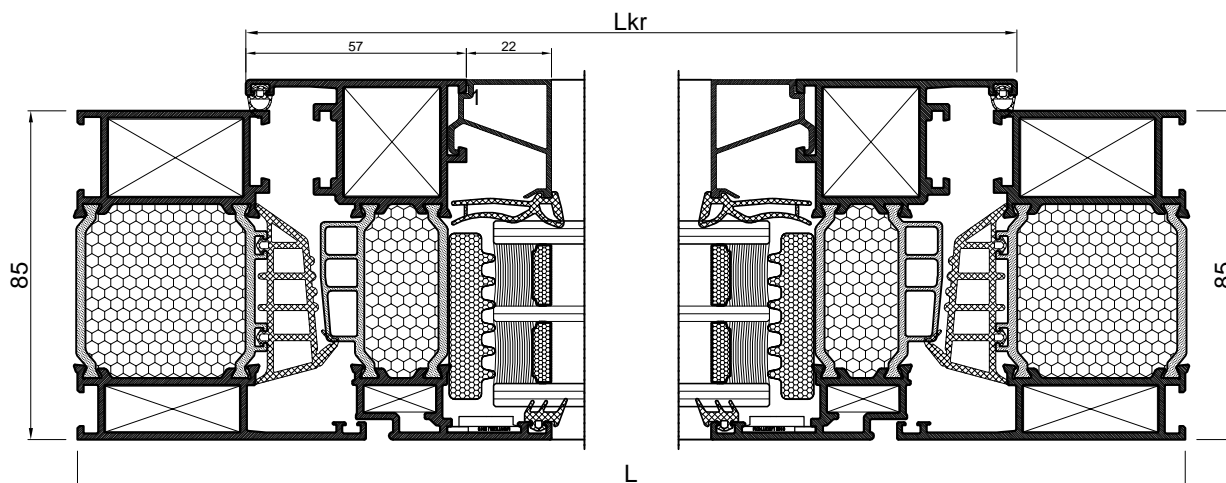


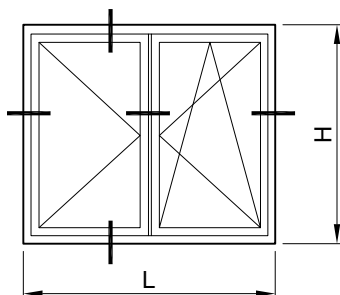
PROFILI		kom	mjera	pilanje
FT-0510	vodoravnica okvira	2	L	45-45
FT-0510	okomica okvira	2	H	45-45
FT-0520	vodoravnica krila	2	Lkr=L-87	45-45
FT-0520	okomica krila	2	Hkr=H-87	45-45
Z40-668	vodoravna lajsna	2	Lkr-114	90-90
Z40-668	okomita lajsna	2	Hkr-158	90-90
Z40-657	okapnica	1	L-161	90-90

OKOVI		kom	
710.119	kutnik rama	4	
710.123	kutnik krila	4	
710.120	pomoćni kutnik krila	4	
710.091	pomoćni kutnik rama	4	
730.001	pomoćni kutnik krila	4	
730.002	pomoćni kutnik rama	4	
Dry kipp	mehanizam Eugen Notter		
373.003	maska za drenažni otvor		

BRTVE		kom	mjera
335.001	srednja brtva		2L+2H
326.001	brtva u krilu		2L+2H
326.002	brtva prema staklu		2L+2H
316.001	brtva prema staklu		2L+2H

STAKLO		kom	mjera
48 mm			Lkr-128 x Hkr-128





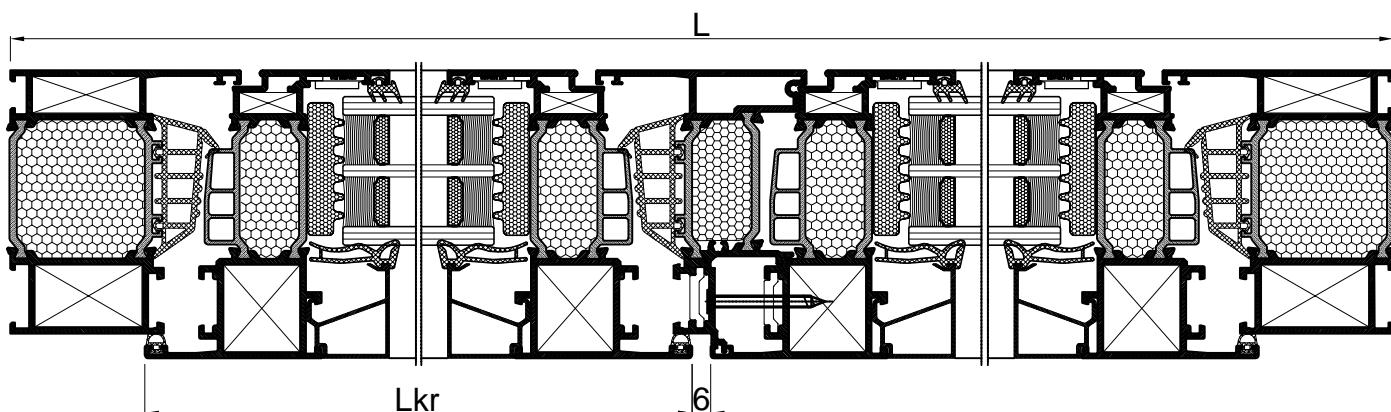
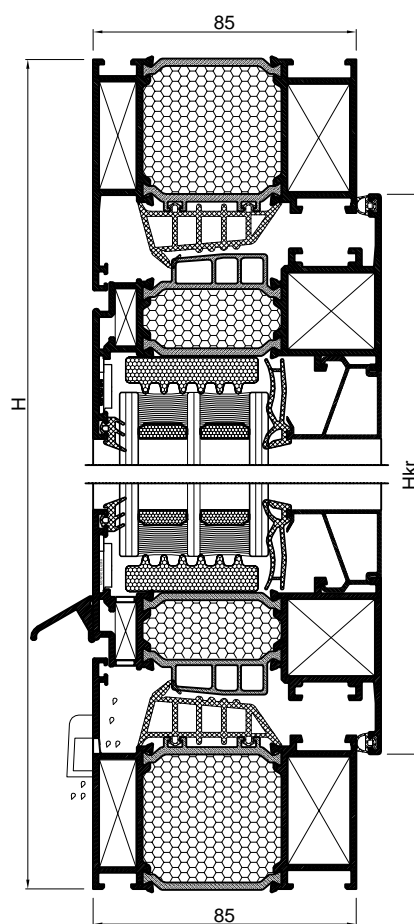
L = 1600 mm  
H = 1480 mm  
Boja: RAL 9010 (bijela)

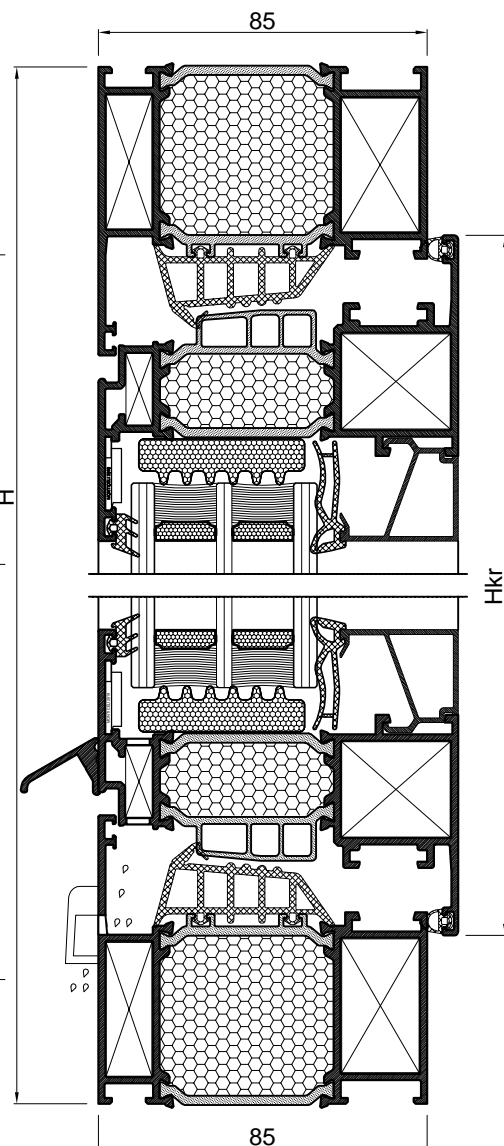
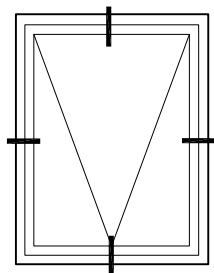
PROFILI		kom	mjera	pilanje
FT-0510	vodoravnica okvira	2	L=1600	45-45
FT-0510	okomica okvira	2	H=1480	45-45
FT-0520	vodoravnica krila	4	Lkr=(L-93)/2=753	45-45
FT-0520	okomica krila	4	Hkr=H-87=1393	45-45
FT-0530	profil za okretanje	1	Hkr-76=1317	90-90
Z40-669	vodoravna lajsna	4	Lkr-114=639	90-90
Z40-669	okomita lajsna	4	Hkr-158=1235	90-90
Z40-657	okapnica	2		90-90

OKOVI		kom	
710.119	kutnik rama	4	
710.123	kutnik krila	8	
710.120	pomoćni kutnik krila	8	
710.091	pomoćni kutnik rama	4	
730.001	pomoćni kutnik krila	8	
730.002	pomoćni kutnik rama	4	
AL2000	DRY KIP mehanizam-Notter	1	

BRTVE		kom	mjera
335.001	srednja brtva		2L+3H
326.001	brtva u krilu		2L+4H
326.002	brtva prema staklu		2L+4H
316.001	brtva prema staklu		2L+4H

STAKLO		kom	mjera
48 mm		2	Lkr-128 x Hkr-128=625 x 1265



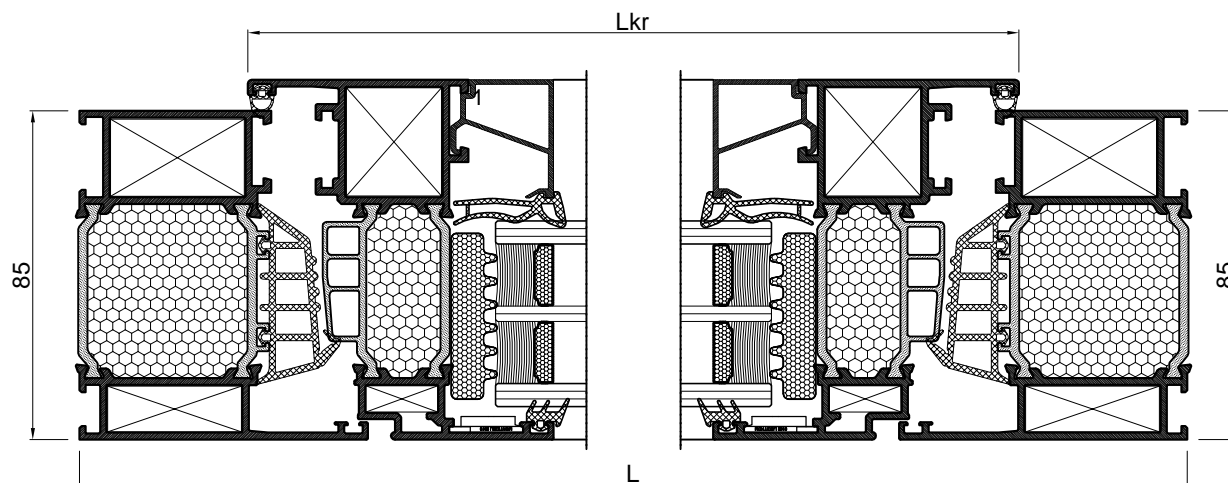


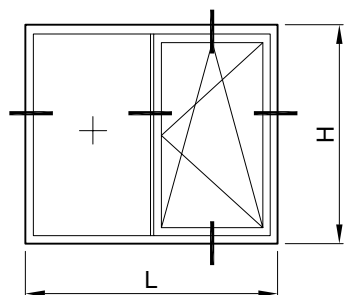
PROFILI		kom	mjera	pilanje
FT-0510	vodoravnica okvira	2	L	45-45
FT-0510	okomica okvira	2	H	45-45
FT-0520	vodoravnica krila	2	Lkr=L-87	45-45
FT-0520	okomica krila	2	Hkr=H-87	45-45
Z40-668	vodoravna lajsna	2	Lkr-114	90-90
Z40-668	okomita lajsna	2	Hkr-158	90-90
Z40-657	okapnica	1	L-161	90-90

OKOVI		kom	
710.119	kutnik rama	4	
710.123	kutnik krila	4	
710.120	pomoćni kutnik krila	4	
710.091	pomoćni kutnik rama	4	
730.001	pomoćni kutnik krila	4	
730.002	pomoćni kutnik rama	4	
Ventus	mehanizam Eugen Notter		
373.003	maska za drenažni otvor		

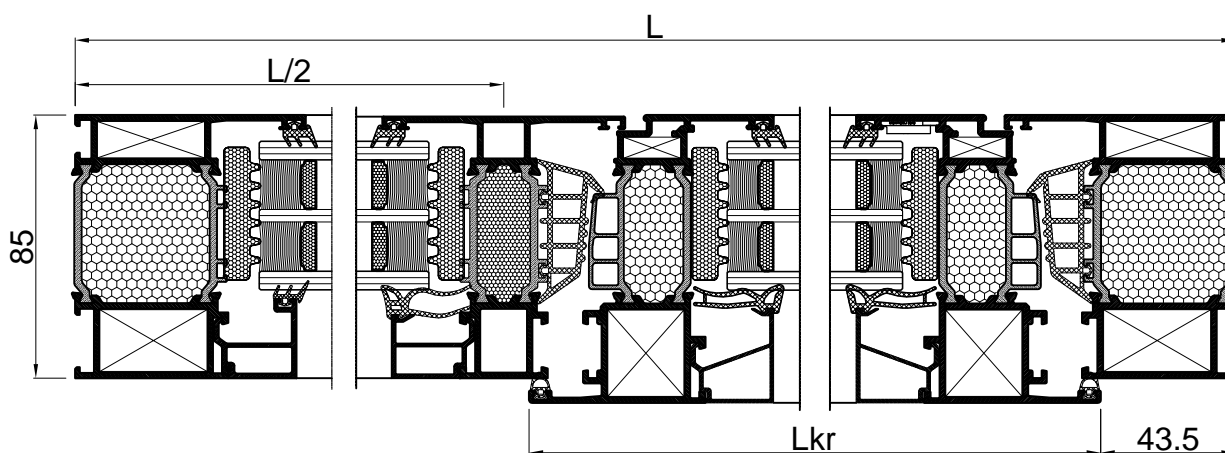
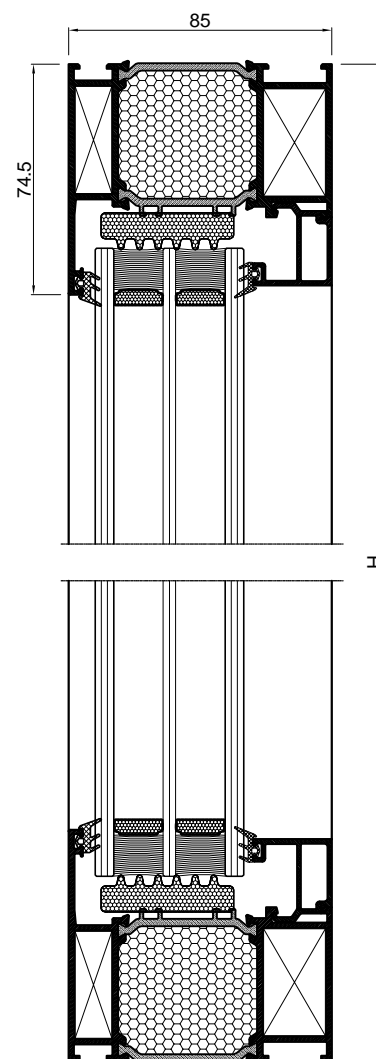
BRTVE		kom	mjera
335.001	srednja brtva		2L+2H
326.001	brtva u krilu		2L+2H
326.002	brtva prema staklu		2L+2H
316.001	brtva prema staklu		2L+2H

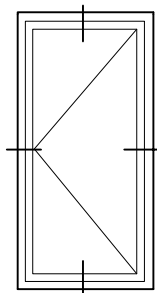
STAKLO		kom	mjera
48 mm			Lkr-128 x Hkr-128





PROFILI		kom	mjera	pilanje
FT-0510	vodoravnica okvira	2	L	45-45
FT-0510	okomica okvira	2	H	45-45
FT-0520	vodoravnica krila	2	$L_{kr}=L/2-51.7$	45-45
FT-0520	okomica krila	2	$H_{kr}=H-87$	45-45
FT-0531	prečka	1	H-89	90-90
Z40-667	vodoravna lajsna-fiksno	2	$L/2-63.7$	90-90
Z40-667	okomita lajsna-fiksno	2	H-149	90-90
Z40-668	vodoravna lajsna-krilo	2	Lkr-114	90-90
Z40-668	okomita lajsna-krilo	2	Hkr-158	90-90
NC-1459	klizač			90-90
OKOVI		kom		
710.119	kutnik rama	4		
710.123	kutnik krila	4		
710.120	pomoćni kutnik krila	4		
710.091	pomoćni kutnik rama	4		
730.001	pomoćni kutnik krila	4		
730.002	pomoćni kutnik rama	4		
Dry kipp	mehanizam E.Notter	4		
710.066	veznik	2		
710.069	dodatni veznik	2		
BRTVE		kom	mjera	
335.001	srednja brtva		L+2H	
326.001	brtva u krilu		L+2H	
326.002	brtva prema staklu		2L+4H	
316.001	brtva prema staklu		L+2H	
31.002	brtva prema staklu		L+2H	
365.039	kutni umetak	4		
STAKLO		kom	mjera	
48 mm		1	$L/2-83.7 \times H-119$	
48 mm		1	$L_{kr}-128 \times H_{kr}-128$	





PROFILI		kom	mjera	pilanje
FT-0510	vodoravnica okvira	2	L	45-45
FT-0510	okomica okvira	2	H	45-45
FT-0520	vodoravnica krila	2	Lkr=L-87	45-45
FT-0520	okomica krila	2	Hkr=H-56.5	45-45
Z40-668	vodoravna lajsna	2	Lkr-114	90-90
Z40-668	okomita lajsna	2	Hkr-158	90-90

OKOVI		kom	
710.119	kutnik rama	4	
710.123	kutnik krila	4	
710.120	pomoćni kutnik krila	4	
710.091	pomoćni kutnik rama	4	
730.001	pomoćni kutnik krila	4	
730.002	pomoćni kutnik rama	4	
mehanizam	Eugen Notter		
373.003	maska za drenažni otvor		

BRTVE		kom	mjera
335.001	srednja brtva		2L+2H
326.001	brtva u krilu		2L+2H
326.002	brtva prema staklu		2L+2H
316.001	brtva prema staklu		2L+2H

STAKLO		kom	mjera
48 mm			Lkr-128 x Hkr-128

