

INSTITUT GRAĐEVINARSTVA HRVATSKE d.d.
Zavod za zgradarstvo
Laboratorij građevinske fizike 2 29 20
p.p. 283, Janka Rakuše 1, HR-10000 Zagreb,
Tel. +385 (0)1 61 25 999
Fax. +385 (0)1 61 25 998, e-mail: igf@igh.hr



www.igh.hr

Izveštaj broj: 2920-607/06

Zahtjev za ispitivanje: Narudžba od 20.12.2005

Nalog za ispitivanje: 292/05

Zagreb, 2006-07-03

IZVJEŠTAJ O ISPITIVANJU BR. 2920-607/06

Naručitelj: FEAL Hrvatska d.o.o.
Rudeška cesta 3a,
10 000 Zagreb

Radni nalog: 29208804

Proizvođač: FEAL d.o.o.
Trg b.b.
88220 ŠIROKI BRIJEG, BiH

Građevni proizvod: Element fasada tip 70-E

Uzorak dostavio: naručitelj ispitivanja

Mjesto ispitivanja: Institut građevinarstva Hrvatske d.d., Zavod za zgradarstvo, Laboratorij građevinske fizike, Janka Rakuše 1, HR-10000 Zagreb

Laboratorijska oznaka uzorka: LGF 491/05

Ispitana svojstva: A dio: Zrakopropusnost
B dio: Vodonepropusnost
C dio: Otpornost na opterećenje vjetrom
D dio: Zvučna izolacija

Voditelj ispitivanja:

Zlatko Franolić

Voditelj laboratorija:

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

Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pismenog odobrenja Voditelja laboratorija.

Dokument: I2920_607_06.doc

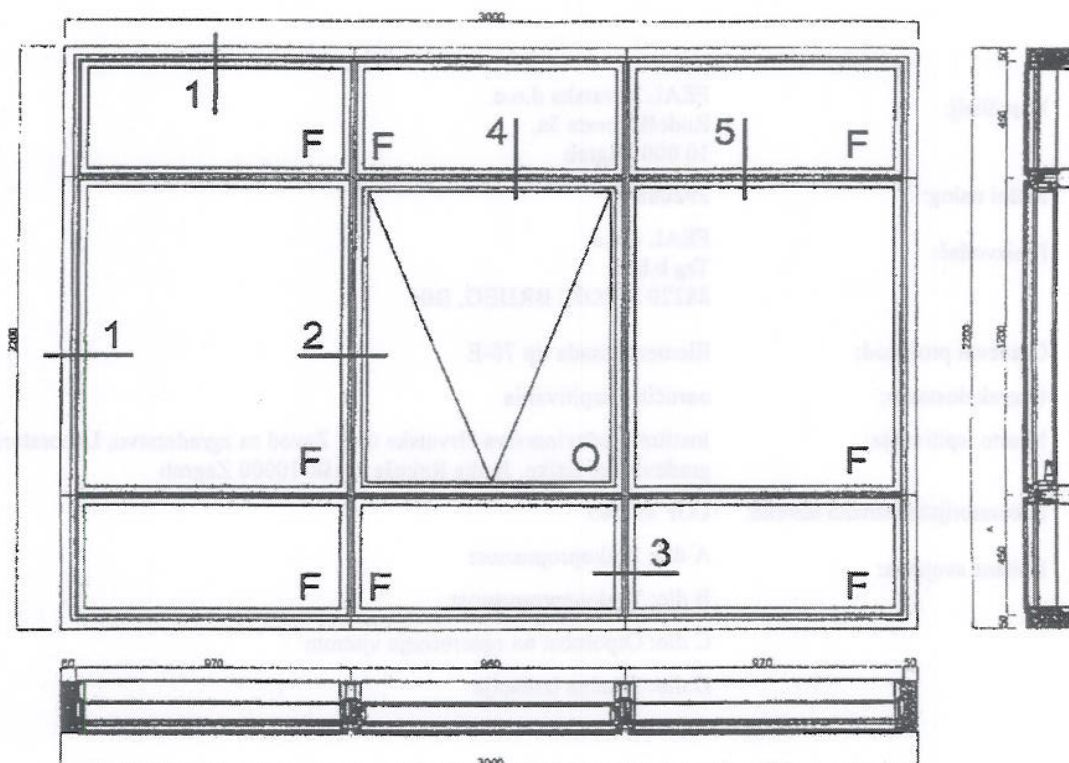
INSTITUT GRADEVINARSTVA HRVATSKE d.d.
Zavod za zgradarstvo
Laboratorij građevinske fizike 2 29 20
p.p. 283, Janka Rakuše 1, HR-10000 Zagreb,
Tel. +385 (0)1 61 25 999
Fax. +385 (0)1 61 25 998, e-mail: igf@igh.hr



Izveštaj broj: 2920-607/06

Opis ispitnog uzorka:

1. Ispitivanja zrakopropusnosti, vodonepropusnosti, otpornosti na opterećenje vjetrom i zvučna izolacija provedena su na uzorku višedjelne element fasade tip 70-E izrađene od aluminijskih profila FEAL, vanjskih izmjera 3000 mm x 2200 mm. Središnji dio elementa aluminijske fasade je otvarajući, prema van oko gornje osi, a ostalih osam dijelova su fiksni. Ostakljenje svih dijelova element fasade je sa IZO staklom sastava: vanjsko staklo Stopsol Neutral – 8 mm + međuprostor zrak 16 mm + unutarnje staklo Low-e – 6 mm. Ispitni uzorak prikazan je skicom i presjecima, od strane naručitelja, kako slijedi:



Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pismenog odobrenja Voditelja laboratorija.

Dokument: I2920_607_06.doc

INSTITUT GRAĐEVINARSTVA HRVATSKE d.d.
 Zavod za zgradarstvo
 Laboratorij građevinske fizike 2 29 20
 p.p. 283, Janka Rakuše 1, HR-10000 Zagreb,
 Tel. +385 (0)1 61 25 999
 Fax. +385 (0)1 61 25 998, e-mail: igf@igh.hr



Izveštaj broj: 2920-607/06

A DIO: ZRAKOPROPUSNOST

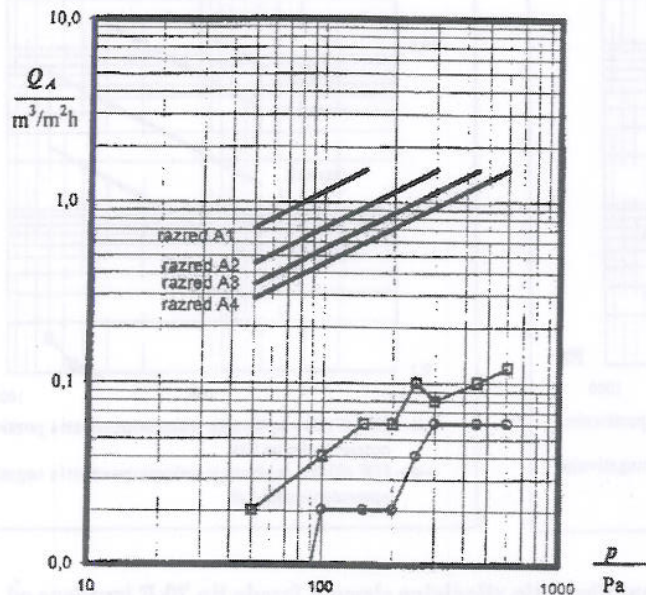
Ispitivanje fiksnog dijela ispitnog uzorka:

Protok zraka po jedinici ploštine uzorka prikazan je, kao funkcija razlike tlakova, dijagramom i tablicom.

Ploština fiksnog dijela ispitnog uzorka: $A = 4,94 \text{ m}^2$.

3.2 Tablica mjernih rezultata

Δp (Pa)	Q_A (m^3/hm^2)	$Q_A(\text{m}^3/\text{hm}^2)$ RAZRED (HR EN12152:2001)				Δp (Pa)	Q_A (m^3/hm^2)	$Q_A(\text{m}^3/\text{hm}^2)$ RAZRED (HR EN12152:2001)			
		A1	A2	A3	A4			A1	A2	A3	A4
LGF 491/05		LGF 491/05				LGF 491/05		LGF 491/05			
Ispitivanje zrakopropusnosti pozitivnim opterećenjem na tlak						Ispitivanje zrakopropusnosti negativnim opterećenjem na tlak					
50	0,02	0,72	0,45	0,35	0,29	50	0,00	0,72	0,45	0,35	0,29
100	0,04	1,14	0,72	0,55	0,45	100	0,02	1,14	0,72	0,55	0,45
150	0,06	1,50	0,94	0,72	0,60	150	0,02	1,50	0,94	0,72	0,60
200	0,06		1,14	0,87	0,72	200	0,02		1,14	0,87	0,72
250	0,10		1,33	1,01	0,84	250	0,04		1,33	1,01	0,84
300	0,08		1,50	1,14	0,94	300	0,06		1,50	1,14	0,94
450	0,10			1,50	1,24	450	0,06			1,50	1,24
600	0,12				1,50	600	0,06				1,50



—■— LGF491/05 ispitivanje zrakopropusnosti pozitivnim opterećenjem na tlak

—○— LGF 491/05 ispitivanje zrakopropusnosti negativnim opterećenjem na tlak

Rezultati ispitivanja odnose se samo na ispitane uzorke. Djeličično umnožavanje ovog izvještaja nije dopušteno bez pismenog odobrenja Voditelja laboratorija.

Dokument: I2920_607_06.doc

INSTITUT GRAĐEVINARSTVA HRVATSKE d.d.
Zavod za zgradarstvo
Laboratorij građevinske fizike 2 29 20
p.p. 283, Janka Rakuše 1, HR-10000 Zagreb,
Tel. +385 (0)1 61 25 999
Fax. +385 (0)1 61 25 998, e-mail: igf@igh.hr



Izvještaj broj: 2920-607/06

Ispitivanje otvarajućeg dijela ispitnog uzorka

Ploština ispitnog otvarajućeg dijela fasade: $A = 1,15 \text{ m}^2$.

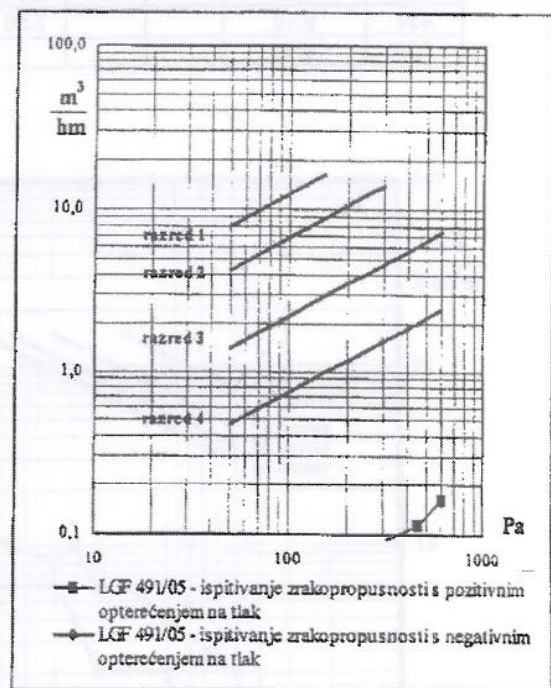
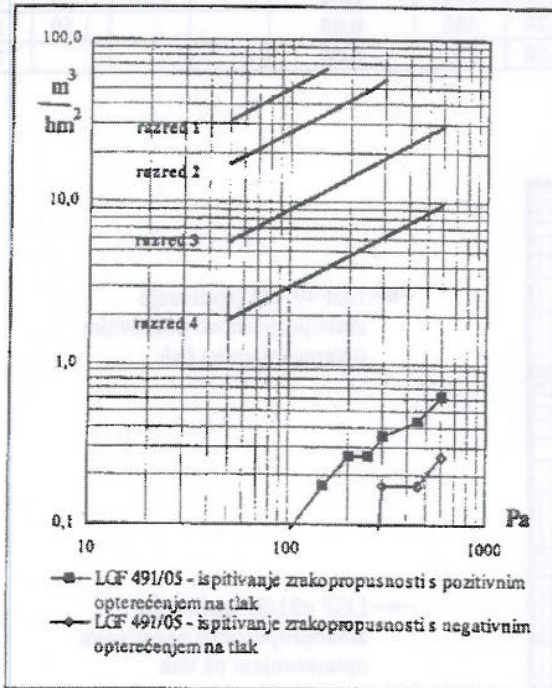
Duljina sljubnica ispitnog otvarajućeg dijela fasade: $l = 4,34 \text{ m}$.

Protok zraka po jedinici duljine sljubnica i po jedinici ploštine otvarajućeg dijela uzorka prikazan je, kao funkcija razlike tlakova, dijagramima i tablicom.

Tablice mjernih rezultata

prvo ispitivanje zrakopropusnosti

Δp (Pa)	Q_l (m^3/hm)						Q_s (m^3/hm^2)					
	pozitivno opt. na tlak		negativno opt. na tlak				pozitivno opt. na tlak		negativno opt. na tlak			
	LGF 491/05	LGF 491/05	RAZRED (HRN EN 12207:2001)				LGF 491/05	LGF 491/05	RAZRED (HRN EN 12207:2001)			
			1	2	3	4			1	2	3	4
50	0,00	0,00	7.77	4.20	1.40	0.47	0,01	0,01	31.1	16.8	5.6	1.9
100	0,02	0,00	12.58	6.79	2.26	0.75	0,09	0,01	50.3	27.2	9.1	3.0
150	0,05	0,00	16.60	8.96	2.99	1.00	0,17	0,01	66.4	35.9	12.0	4.0
200	0,07	0,00		10.89	3.63	1.21	0,26	0,01		43.6	14.5	4.8
250	0,07	0,00		12.76	4.25	1.42	0,26	0,01		51.1	17.0	5.7
300	0,09	0,05		14.10	4.70	1.57	0,35	0,17		56.4	18.8	6.3
450	0,12	0,05			6.16	2.05	0,43	0,17			24.6	8.2
600	0,16	0,07			7.44	2.48	0,61	0,26			29.8	9.9



S obzirom na zrakopropusnost, ispitani fiksni dio višedjelne element fasade tip 70-E izrađene od aluminijskih profila FEAL, opisane u opisu ispitnog uzorka ovog izvještaja, proizvođača "FEAL", može se svrstati u **razred A4**, u skladu HRN EN 12152; 2002.

S obzirom na zrakopropusnost, ispitani otvarajući dio višedjelne element fasade tip 70-E izrađene od aluminijskih profila FEAL, opisane u opisu ispitnog uzorka ovog izvještaja, proizvođača "FEAL", može se svrstati u **razred 4**, u skladu HRN EN 12207;2001.

Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pismenog odobrenja Voditelja laboratorija.

Dokument: I2920_607_06.doc

INSTITUT GRAĐEVINARSTVA HRVATSKE d.d.
Zavod za zgradarstvo
Laboratorij građevinske fizike 2 29 20
p.p. 283, Janka Rakuše 1, HR-10000 Zagreb,
Tel. +385 (0)1 61 25 999
Fax. +385 (0)1 61 25 998, e-mail: igf@igh.hr



Izveštaj broj: 2920-607/06

B DIO: VODONEPROPUSNOST

Rezultati ispitivanja prikazani su tablicom:

TLAK Δp (Pa)	VRIJEME τ (min)	LGF 491/05	RAZRED (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

- + Znači da nije došlo do propuštanja vode.
- ▽ Znači da je došlo do propuštanja vode.

Tijekom ispitivanja u skladu s HRN EN 1027:2001, u rasponu natišnog tlaka od 0 Pa do 600 Pa, ispitani uzorak LGF 491/05 nije propustio vodu.

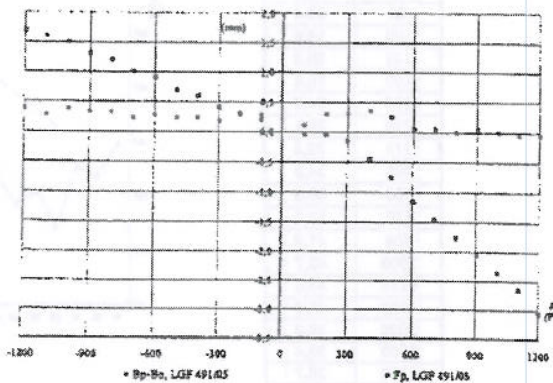
S obzirom na vodonepropusnost višedjelna element fasada tip 70-E izrađena od aluminijskih profila FEAL, opisane u opisu ispitnog uzorka ovog izvještaja, proizvođača "FEAL", može se svrstati u razred 9A, u skladu s HRN EN 12208:2001.

C DIO: OTPORNOST NA OPTEREĆENJE VJETROM

REZULTATI ISPITIVANJA ČEONOG SAVIJANJA

Ispitivanje je provedeno na dijelu profila prozorskog krila gdje postoji najveći razmak između dva susjedna učvršćenja prozorskog krila za doprozornik.

TLAK Δp (Pa)	LGF 491/05				
	A_p (mm)	B_p (mm)	C_p (mm)	F_p (mm)	F_{fp} ($\times 10^{-4}$)
100	-0,1	-0,1	-0,2	0,10	1,17
200	-0,3	-0,1	-0,4	0,30	3,51
300	-0,4	-0,2	-0,5	0,30	3,51
400	-0,7	-0,5	-0,9	0,35	4,09
500	-0,9	-0,8	-1,1	0,25	2,92
600	-1,1	-1,2	-1,3	0,05	0,58
700	-1,4	-1,5	-1,6	0,05	0,58
800	-1,6	-1,8	-1,9	0,00	0,00
900	-2,0	-2,1	-2,2	0,05	0,58
1000	-2,2	-2,4	-2,5	0,00	0,00
1100	-2,5	-2,7	-2,7	-0,05	-0,58
1200	-2,9	-3,1	-3,1	-0,05	-0,58
-100	0,0	0,2	-0,4	0,28	3,22
-200	0,1	0,3	-0,3	0,28	3,22
-300	0,3	0,4	-0,1	0,18	2,05
-400	0,5	0,6	0,0	0,23	2,63
-500	0,6	0,7	0,1	0,23	2,63
-600	0,7	0,9	0,3	0,28	3,22
-700	0,8	1,0	0,5	0,23	2,63
-800	0,9	1,2	0,6	0,33	3,80
-900	1,0	1,3	0,7	0,33	3,80
-1000	1,2	1,5	0,8	0,38	4,39
-1100	1,3	1,6	1,1	0,28	3,22
-1200	1,4	1,7	1,0	0,38	4,39



Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pismenog odobrenja Voditelja laboratorija.

Dokument: I2920_607_06.doc

INSTITUT GRAĐEVINARSTVA HRVATSKE d.d.
Zavod za zgradarstvo
Laboratorij građevinske fizike 2 29 20
p.p. 283, Janka Rakuše 1, HR-10000 Zagreb,
Tel. +385 (0)1 61 25 999
Fax. +385 (0)1 61 25 998, e-mail: lgrfi@igh.hr



Izvještaj broj: 2920-607/06

S obzirom na relativno čeono savijanje, ispitani uzorak LGF 491/05, može se svrstati u razred C ($F_{r,0} < 1/300$), u skladu s HRN EN 12210:2001, budući da je maksimalno relativno čeono savijanje iznosilo 1/2442.

REZULTATI ISPITIVANJA OTPORNOSTI PROMJENJIVIM TLAKOM P2

Ispitivanje je provedeno s 50 impulsa promjenjivog tlaka P2 od ± 600 Pa, koji iznosi polovicu max. tlaka P1. Nakon provedenog opterećenja na uzorku LGF 491/05 nije bilo vidljivih oštećenja niti promjena u funkcionalnosti prozora.

REZULTATI SIGURNOSNOG ISPITIVANJA

Ispitivanje sigurnosti je provedeno s jednim impulsom od -1800 Pa i s jednim impulsom od $+1800$ Pa. Nakon provedenog opterećenja na uzorku LGF 491/05 nije bilo vidljivih napuknuća na bilo kojem dijelu uzorka (staklo, okvir i okovi), niti je došlo do otvaranja prozora.

S obzirom na ispitivanje otpornosti na opterećenje vjetrom ispitani jednokrlni otklopni prozor (otvarajući dio višedjelne element fasade tip 70-E) izrađena od aluminijskih profila FEAL, opisanog u opisu ispitnog uzorka ovog izvještaja, proizvođača "FEAL", može se svrstati u razred C 3, u skladu s HRN EN 12210:2001.

D DIO: ZVUČNA IZOLACIJA

REZULTATI ISPITIVANJA IZOLACIJE OD ZRAČNOG ZVUKA

Indeks zvučne izolacije ispitnog uzorka prikazan je, kao funkcija frekvencije, dijagramom i tablicom.

Pri iskazivanju rezultata ispitivanja rabljene su ove oznake:

f središnja frekvencija terca (Hz),

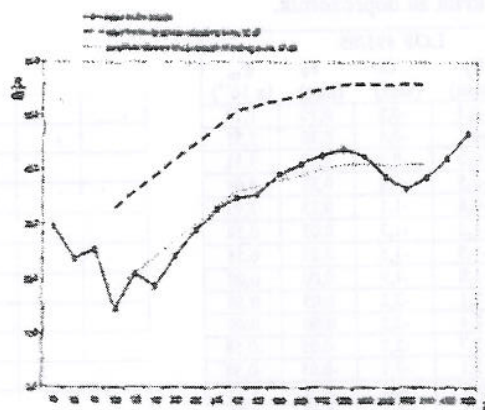
R indeks zvučne izolacije (dB),

R_w vrednovani indeks zvučne izolacije (dB).

Tablica:

frekvencija f (Hz)	terca R (dB)
50	29,8
63	23,8
80	25,4
100	14,8
125	20,8
160	18,8
200	24,2
250	29,1
315	32,8
400	34,8
500	35,8
630	39,2
800	41,2
1000	42,7
1250	44,0
1600	42,5
2000	38,8
2500	36,4
3150	38,7
4000	42,1
5000	46,7

Dijagram:

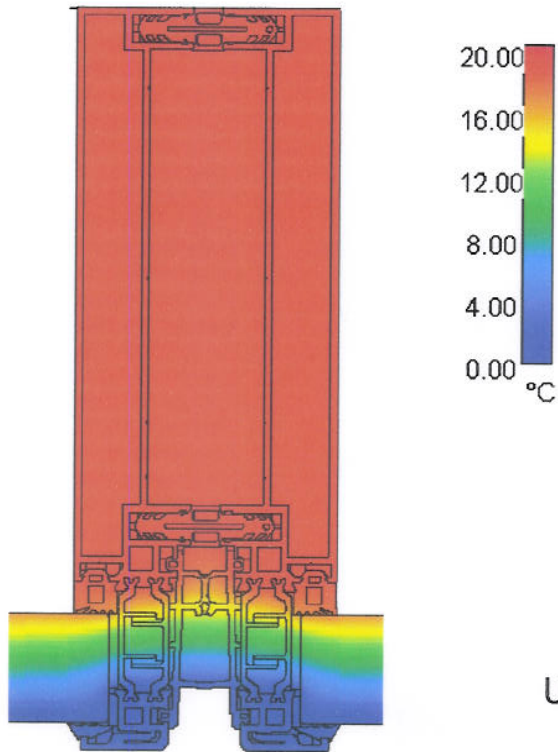


Temeljem rezultata ispitivanja višedjelne element fasade tip 70-E izrađene od aluminijskih profila FEAL, vanjskih izmjera 3000 mm x 2200 mm, ostakljene IZO-staklom debljine 30 mm, sastava: vanjsko staklo Stopsof Neutral - 8 mm + međuprostor zrak - 16 mm + unutarnje staklo Low-e - 6 mm, proizvođača Feal d.o.o., vrednovani indeks zvučne izolacije, u skladu s normom HRN EN ISO 717-1:1998., iznosi:

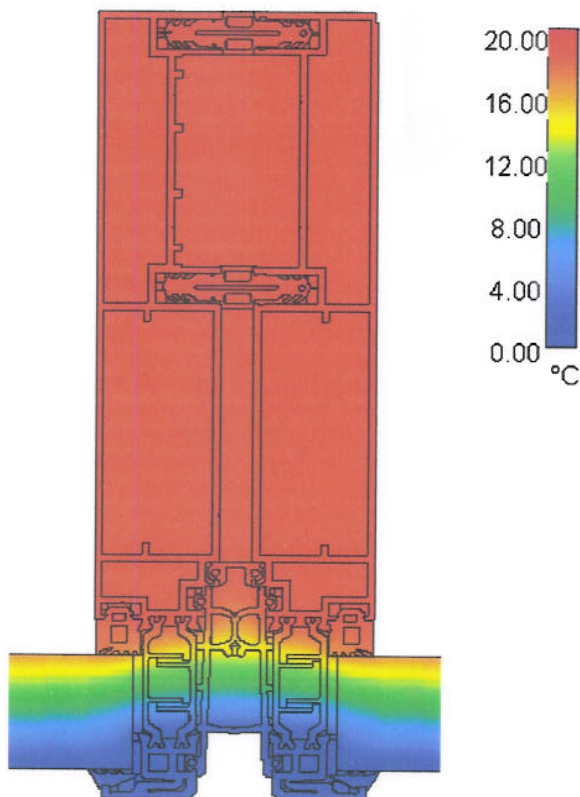
$$R_w (C; C_w; C_{50-5000}; C_{0,50-5000}) = 37 (-2; -6; -1; -7) \text{ dB}$$

Rezultati ispitivanja odnose se samo na ispitane uzorke. Djelomično umnožavanje ovog izvještaja nije dopušteno bez pismenog odobrenja Voditelja laboratorija.

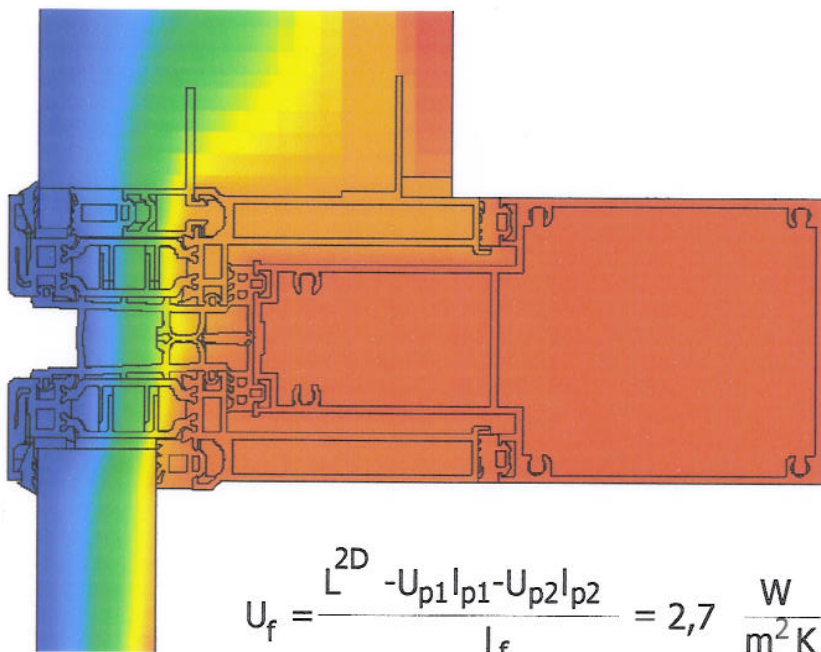
Dokument: I2920_607_06.doc



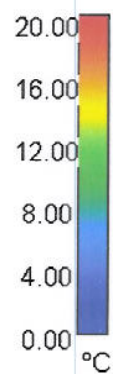
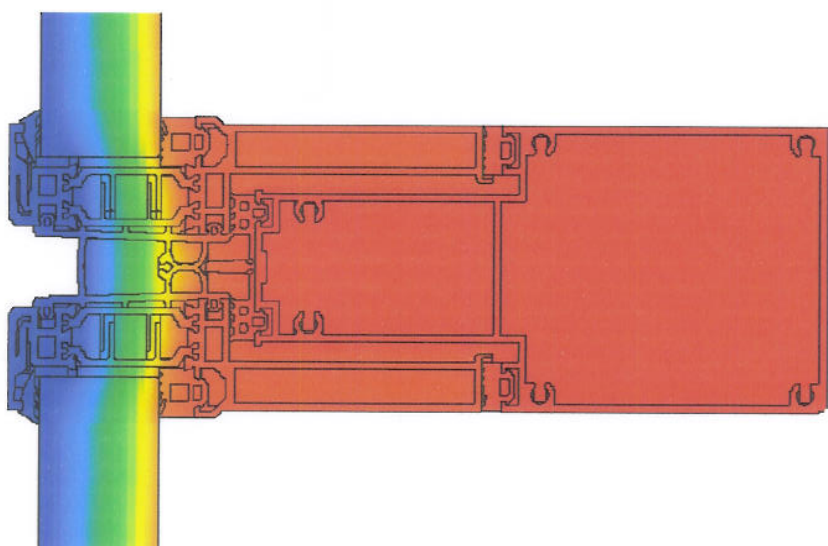
$$U_f = \frac{L^{2D} - U_{p1}|_{p1} - U_{p2}|_{p2}}{I_f} = 2,48 \frac{W}{m^2K}$$



$$U_f = \frac{L^{2D} - U_{p1}|_{p1} - U_{p2}|_{p2}}{I_f} = 2,47 \frac{W}{m^2K}$$

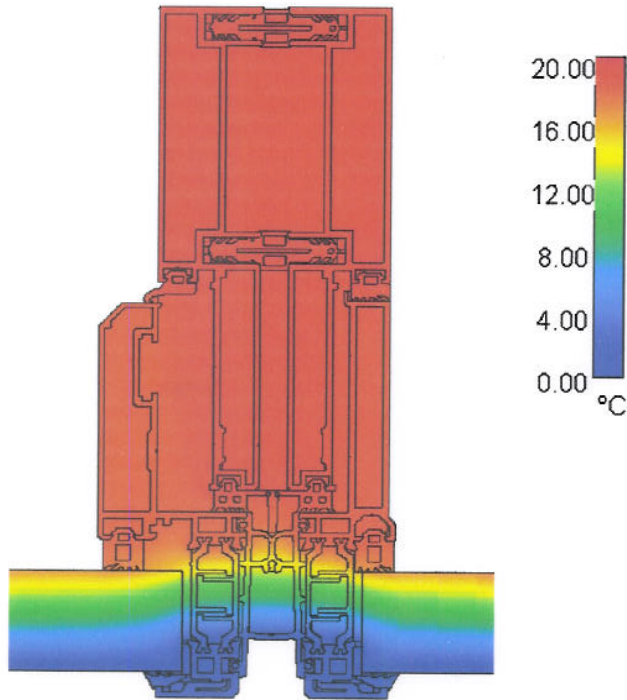


$$U_f = \frac{L^{2D} - U_{p1}l_{p1} - U_{p2}l_{p2}}{l_f} = 2,7 \frac{W}{m^2K}$$

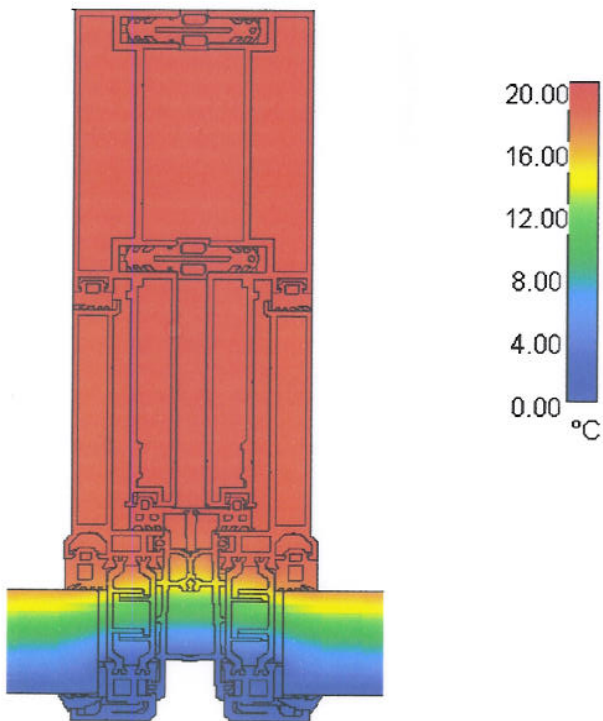


$$U_f = \frac{L^{2D} - U_{p1}l_{p1} - U_{p2}l_{p2}}{l_f} = 2,3 \frac{W}{m^2K}$$

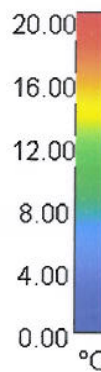
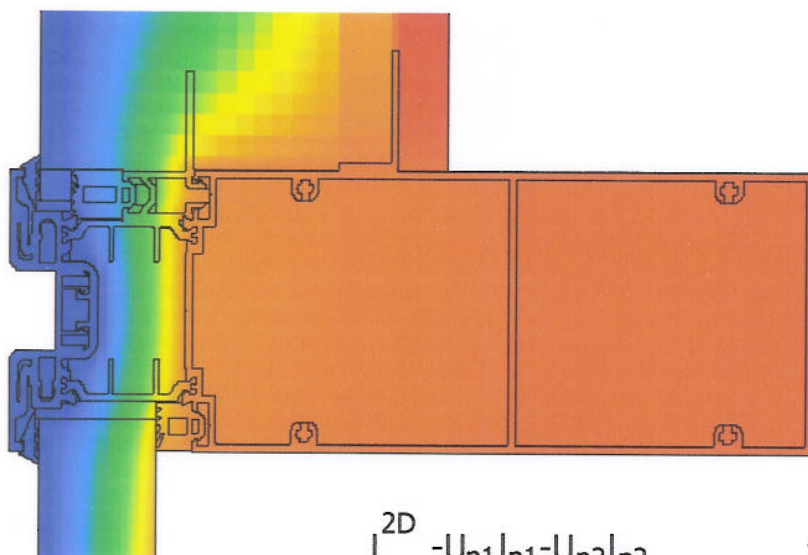
Proračun koeficijenta prijelaza topline U_f prema EN ISO 10077-2:2003-12
 Termički dijagrami:



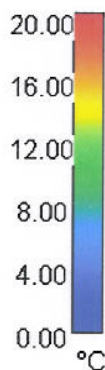
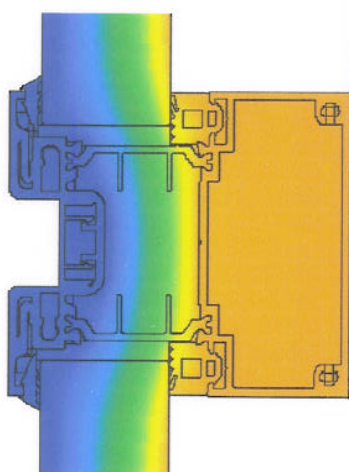
$$U_f = \frac{L^{2D} - U_{p1}l_{p1} - U_{p2}l_{p2}}{l_f} = 2,19 \frac{W}{m^2K}$$



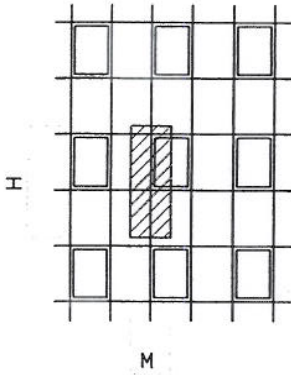
$$U_f = \frac{L^{2D} - U_{p1}l_{p1} - U_{p2}l_{p2}}{l_f} = 2,5 \frac{W}{m^2K}$$



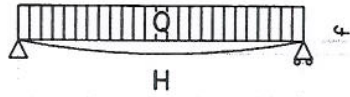
$$U_f = \frac{L^{2D} - U_{p1}l_{p1} - U_{p2}l_{p2}}{I_f} = 3 \frac{W}{m^2K}$$



$$U_f = \frac{L^{2D} - U_{p1}l_{p1} - U_{p2}l_{p2}}{I_f} = 2,45 \frac{W}{m^2K}$$



$$f_{adm} = H/300$$



$$J_x = \frac{5}{384} * \frac{Q * H^3}{E * f}$$

Jx = [cm⁴]

Q = [Kg]

q = vjetar [Kg/m²]

$$Q = q * M * H = [Kg]$$

E = MODUL ELASTICNOSTI
[Kg/cm²]

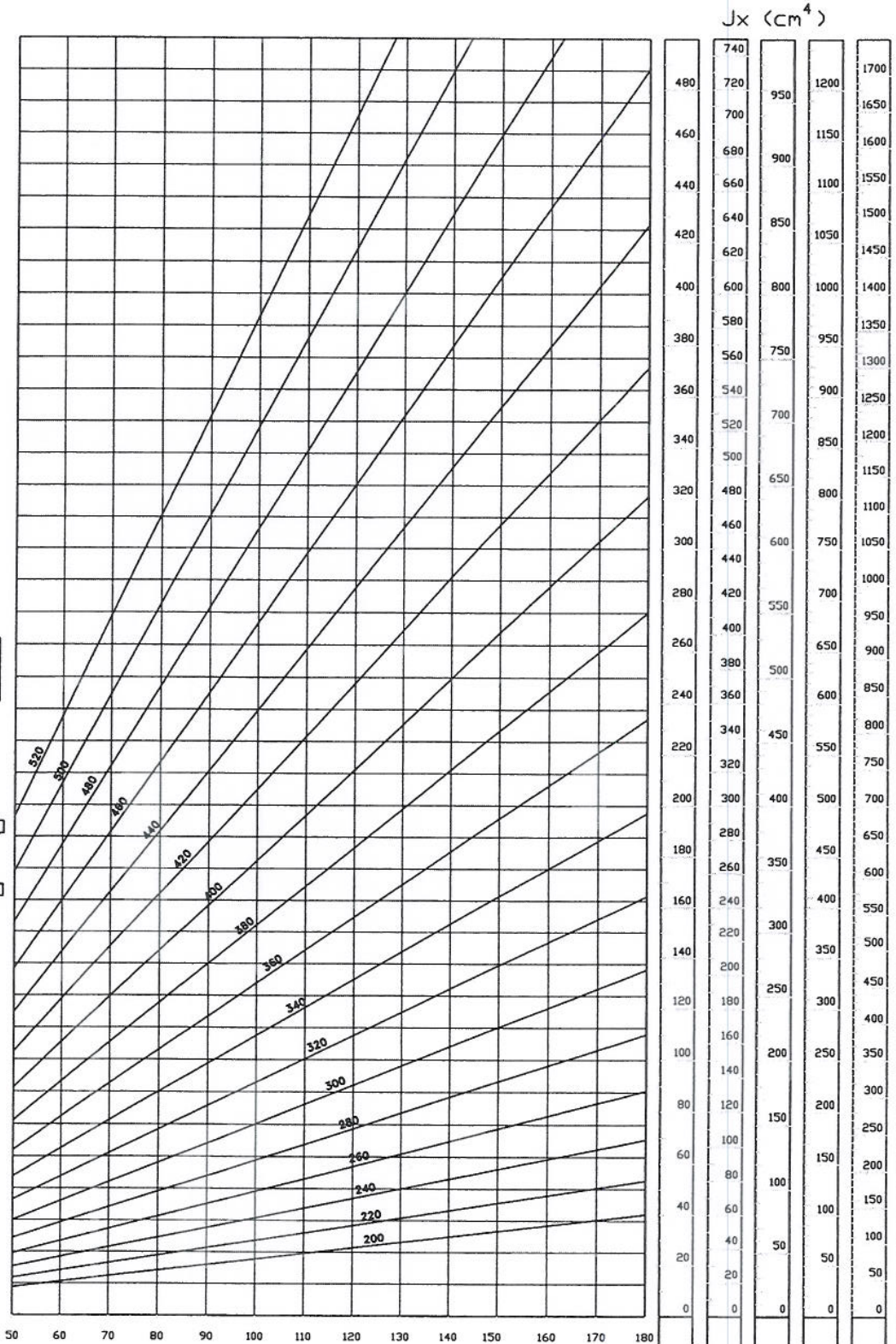
f = PROGIB [cm]

M = 115 cm

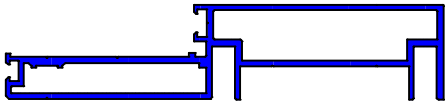
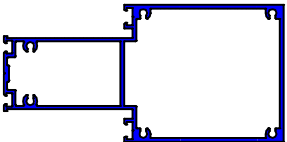
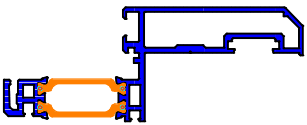
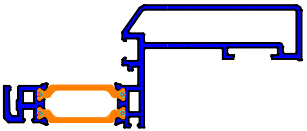
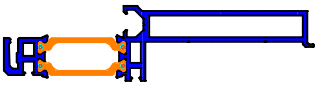

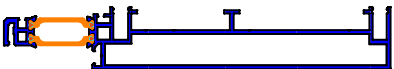
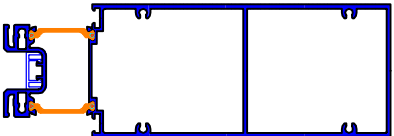
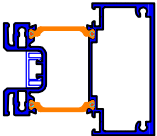
H = 320 cm

q = 100 Kg/m²

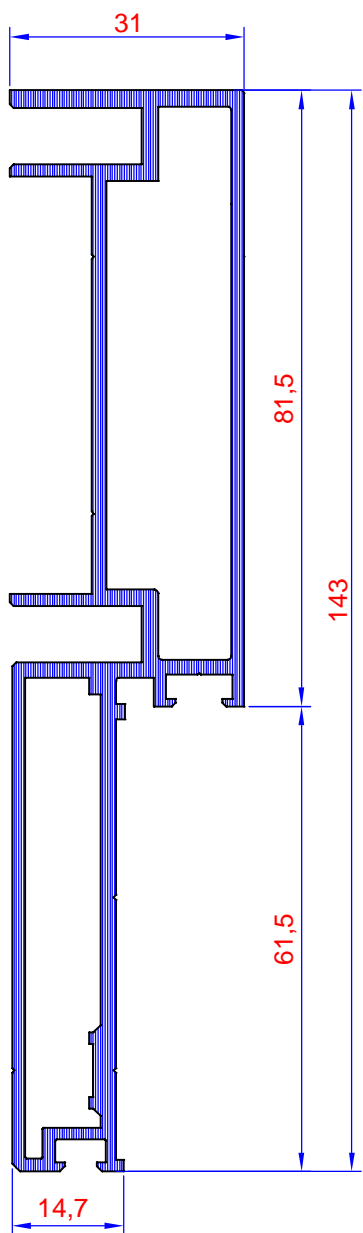
Jx = 210 cm⁴



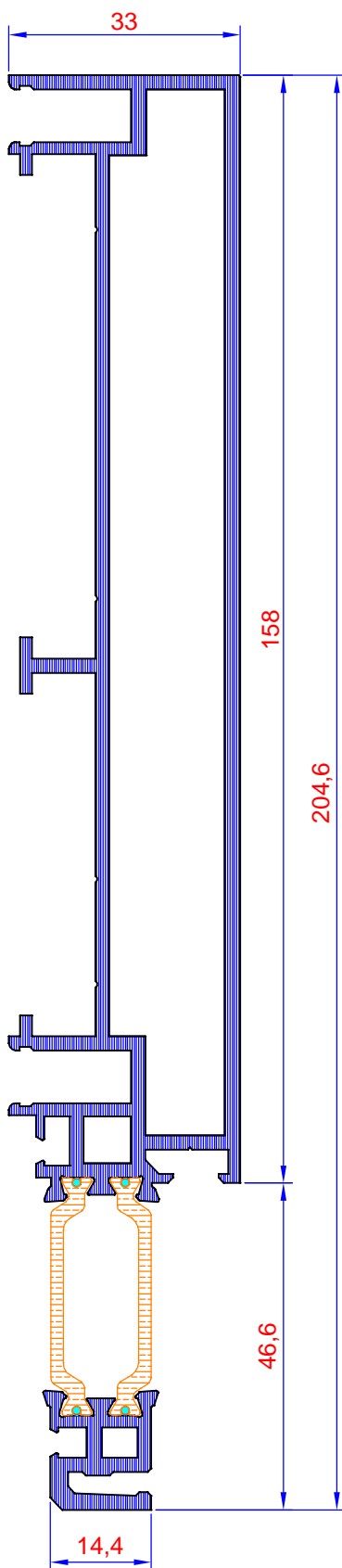
q=Kg/m ²	V1	V1a	V2	V2a	V3
50	75	100	125	175	

Oznaka	Izgled-presjek	Težina /kg/m/	Opseg /mm/	Ix /cm ⁴ /	Iy /cm ⁴ /
FEO-0201		2.07	475.34	147.1	7
FEV-0211		2.70	496.94	62.4	221
FT-0136		1.85	450.1	52	8.6
FT-0160		1.87	437.3	87.1	17.5
FT-0137		1.63	390.26	60	3.2
FEO-0202		3.26	700	386	11.3
FEO-0203		3.17	695	380	8
FEV-0212		4.24	740	560	84
FEV-0213		241	490	51	33.8

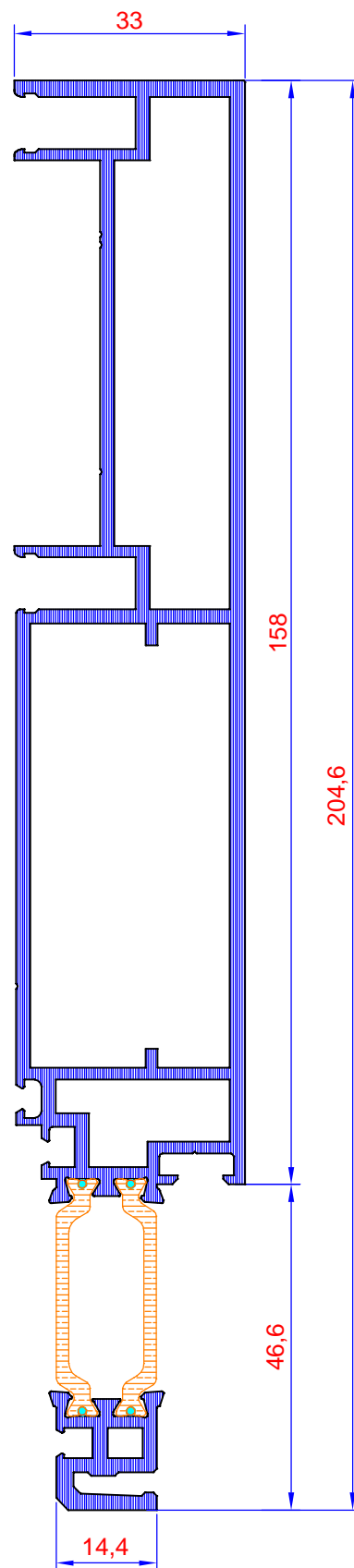
Oznaka	Izgled-presjek	Težina /kg/m/	Opseg /mm/	I_x /cm ⁴ /	I_y /cm ⁴ /
FT-0163/A		1,752	274		
FT-0148		1,477	368		
F-0807		0.132	54.34		
F-0972		0.156	73		
FR - 41		0.15	61.6		
FM 6/12		0,115	61		
FM 12/12		0,18	100,16		
FM 21/12		0,254	124,24		
FM 24/12		0,31	148,3		



FEO-0201
tež.:2,07 kg/m'

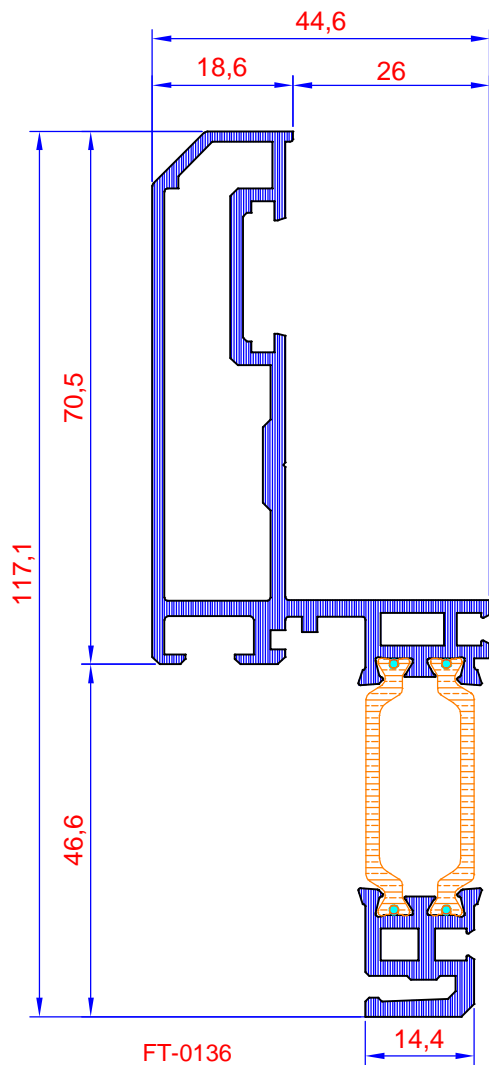
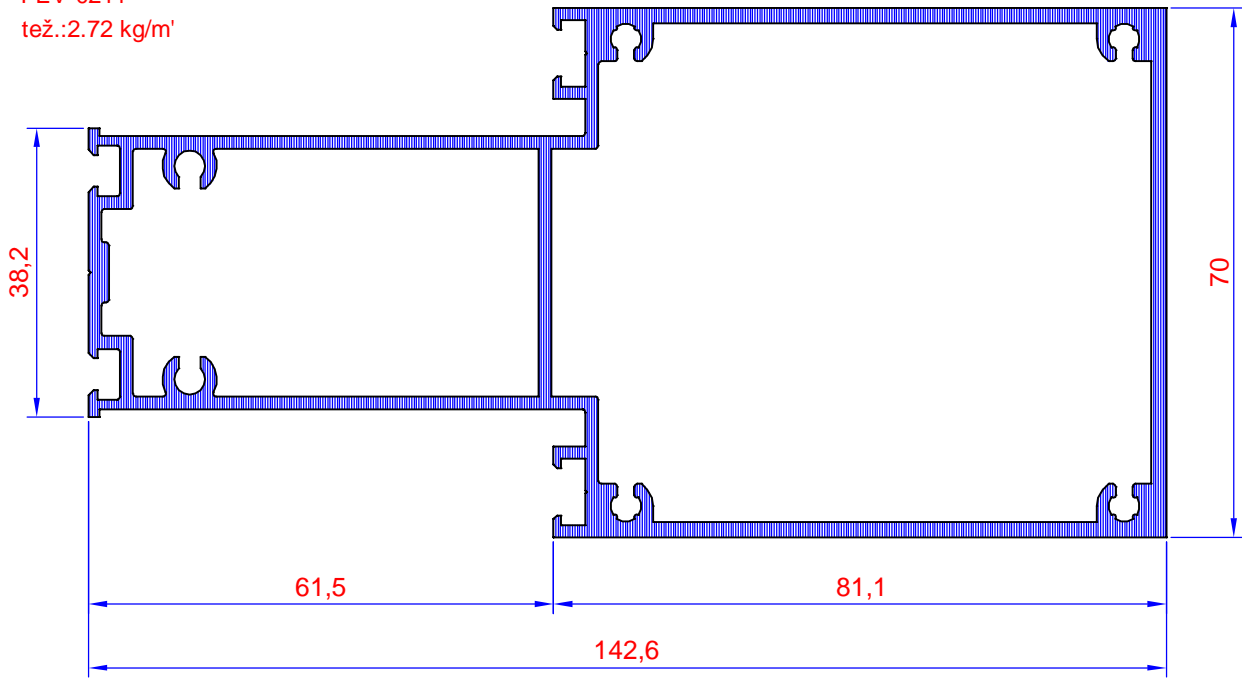


FEO-0203
tež.:3,17kg/m'

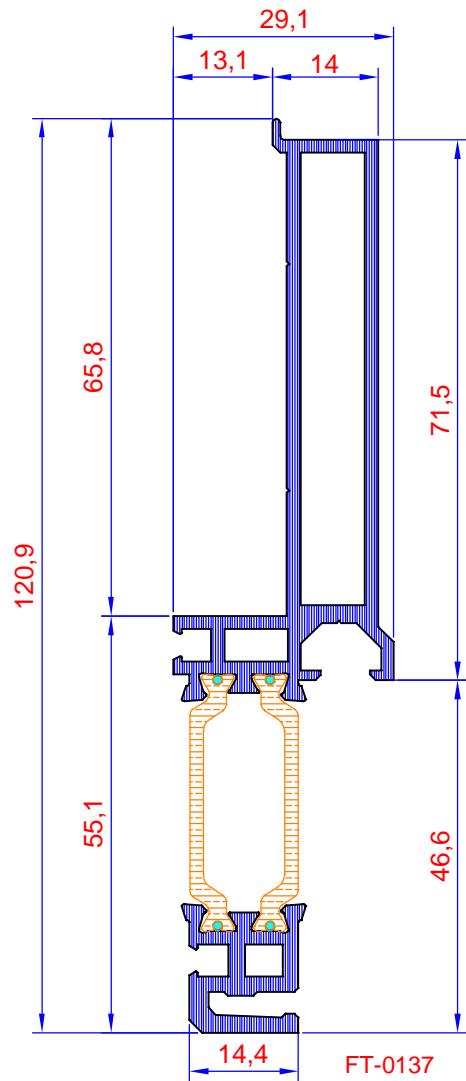


FEO-0202
tež.:3,26 kg/m'

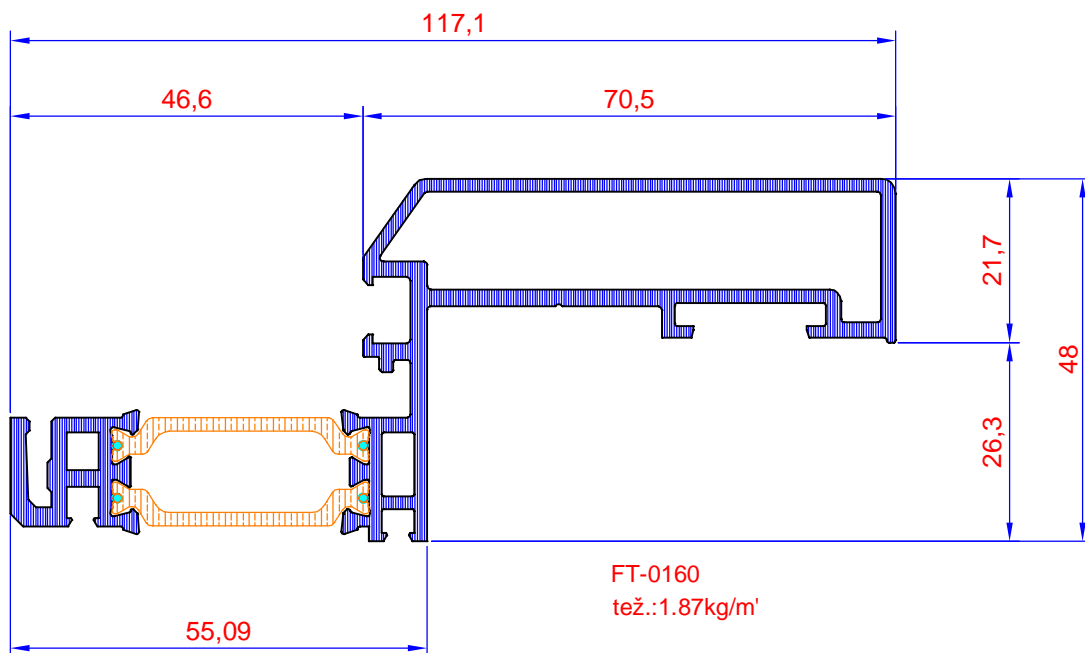
FEV-0211
tež.:2.72 kg/m'



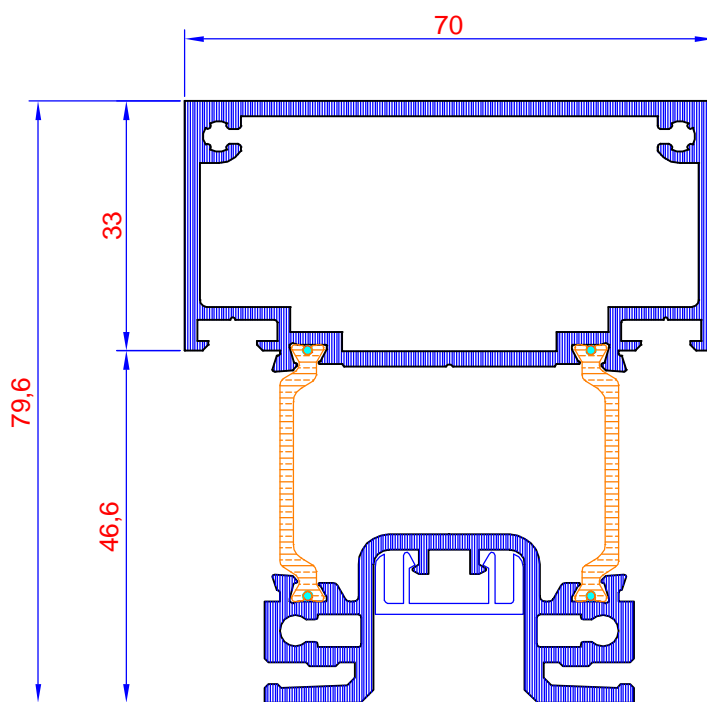
FT-0136
tež.:1.85 kg/m'



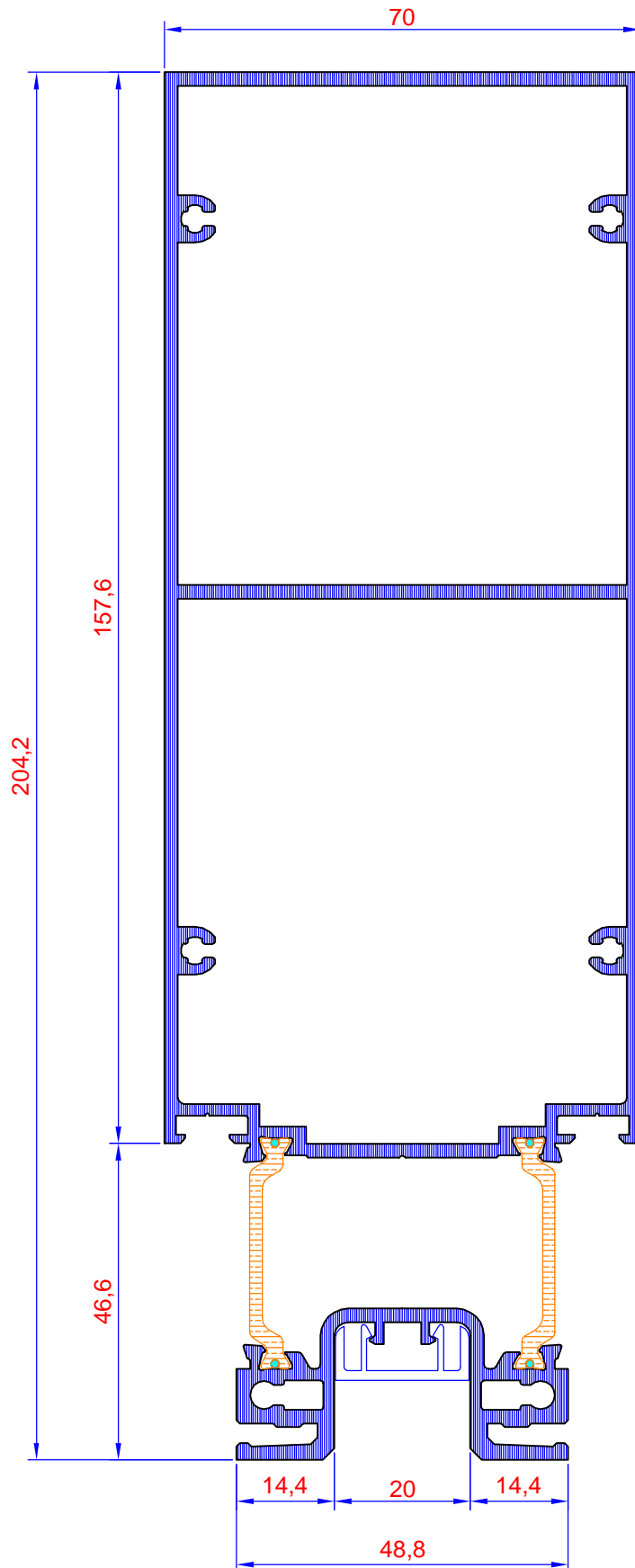
FT-0137
tež.:1.63 kg/m'

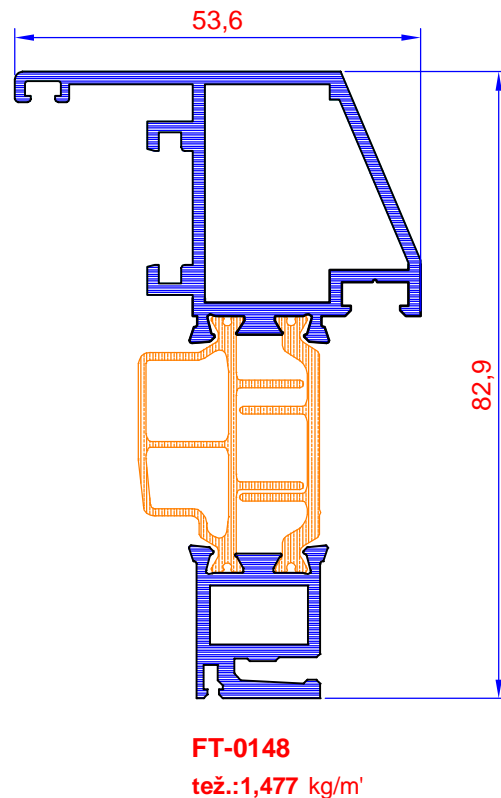
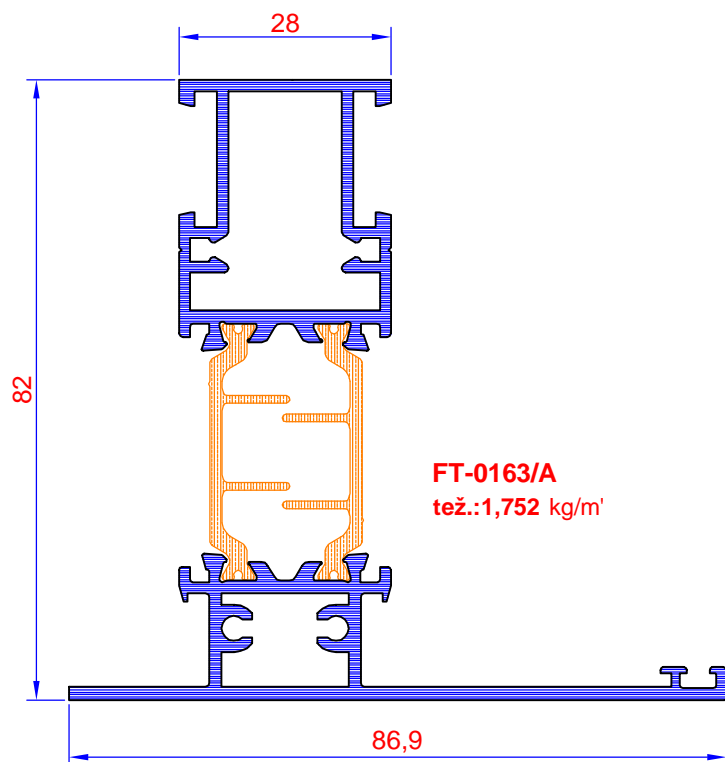


FEV-0213
tež.:2,41 kg/m'

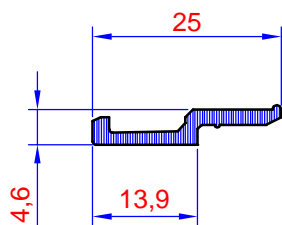


FEV-0212
tež.:4,24 kg/m'

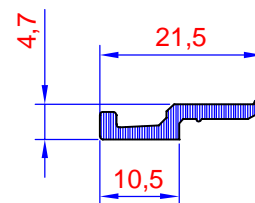




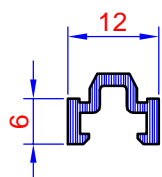
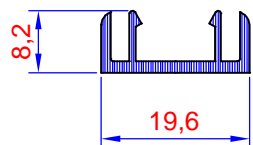
FR - 41
tež.:0.15 kg/m'



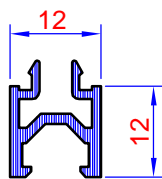
F-0807
tež.:0.132 kg/m'



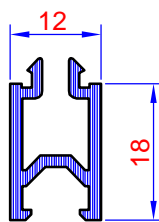
F-0972
tež.:0.156 kg/m'



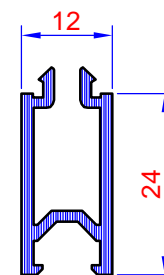
FM 6/12
težina: kg/ml 0.115



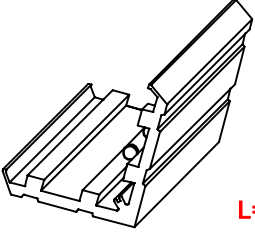
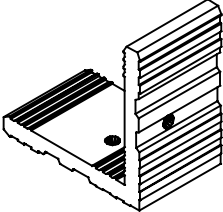
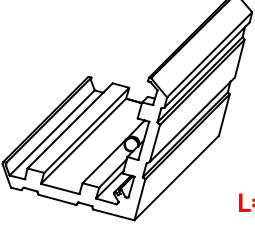
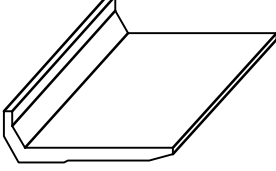

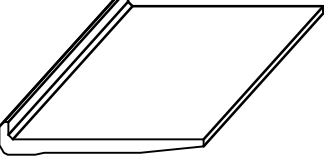

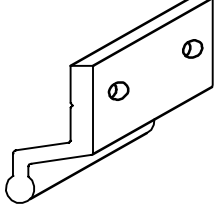
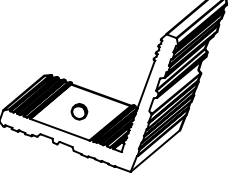
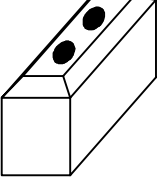
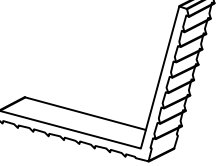

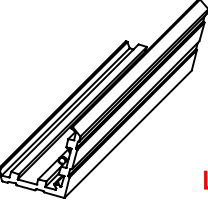
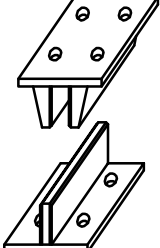
FM 12/12
težina: kg/ml 0.18



FM 21/12
težina: kg/ml 0.254



FM 24/12
težina: kg/ml 0.31

Oznaka	Opis	Oznaka	Opis
K EF-01	 <p>L=53 mm; Materijal Al</p>	K EF-07	 <p>L=59,5 mm; Materijal Al</p>
K EF-01/F	 <p>L=62 mm; Materijal Al</p>	DS 100/B	 <p>Drzac stakla l=40 mm</p>
K EF-02	 <p>L=59 mm; Materijal Al</p>	DS 100/D	 <p>Drzac stakla l=100 mm</p>
K EF-03	 <p>L=4 mm; Materijal Al</p>	EF-K-01	 <p>Veznik; Materijal Al</p>
K EF-04	 <p>L=30.2 mm; Materijal Al</p>	EF-K-02	 <p>Veznik; Materijal PVC</p>
K EF-05	 <p>L=4 mm; Materijal Al</p>	EF-K-03	 <p>Čelični (toplo pocinčani) umetak za nošenje i fiksiranje elementa fasade</p>
K EF-06	 <p>L=125 mm; Materijal Al</p>	EF-K-04/2	 <p>usmjerivači elementa</p>

Oznaka

Opis

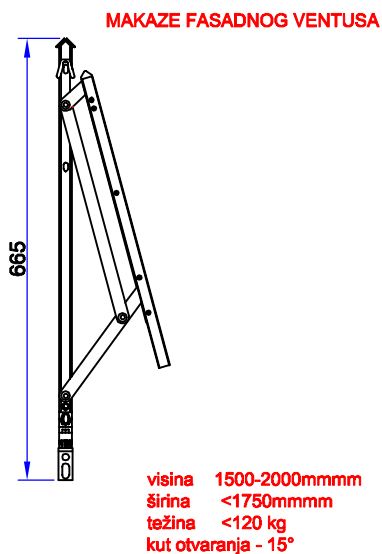
Art.CDB 2700 R
(Bez klizača)
(Makaze "RIVALU")

600R

(1202 2700+K
A 1250 podešavanje
1251 graničnik)

600N

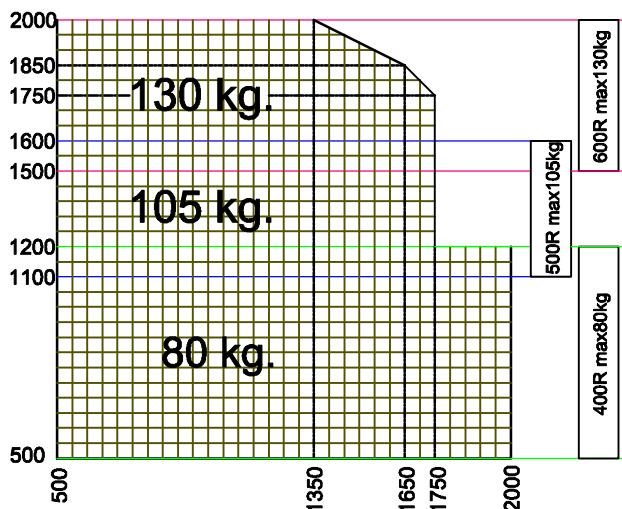
Makaze "Notter"
(Bez klizača)
br.03095600



MATERIJAL INOX

Diagram za Rivalu makaze

Diagram nosivosti

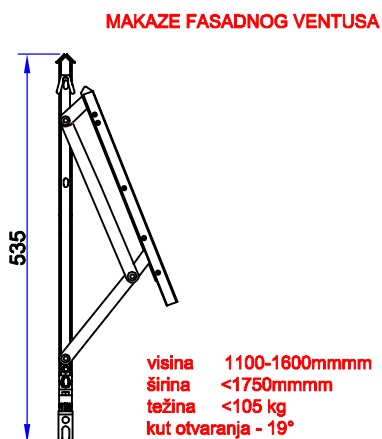


Art.CDB 2650 R
(Bez klizača)
Makaze "RIVALU"

500R

500N

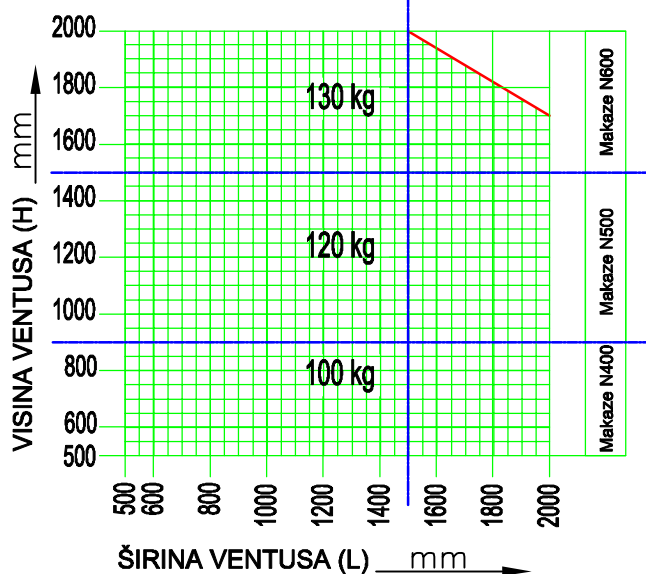
Makaze "Notter"
(Bez klizača)
br.03095500



MATERIJAL INOX

Diagram za Notter makaze

Diagram nosivosti

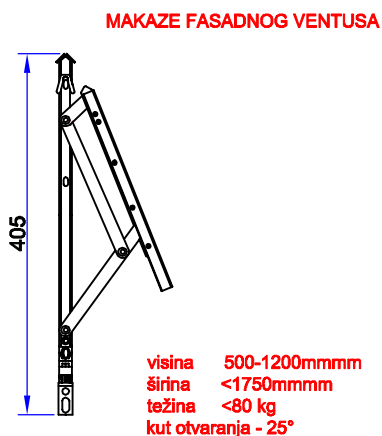


Art.CDB 2600 R
(Bez klizača)
Makaze "RIVALU"

400R

400N

Makaze "Notter"
(Bez klizača)
br.030945400



MATERIJAL INOX

Oznaka

Opis

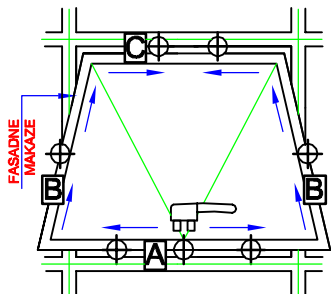
***ZAKLJUČAVANJE STRANICE "A"**

08487626 kom:1
03087905 kom:1
(jedno zaključ.)
03087705 set:1
(tri zaključava.)

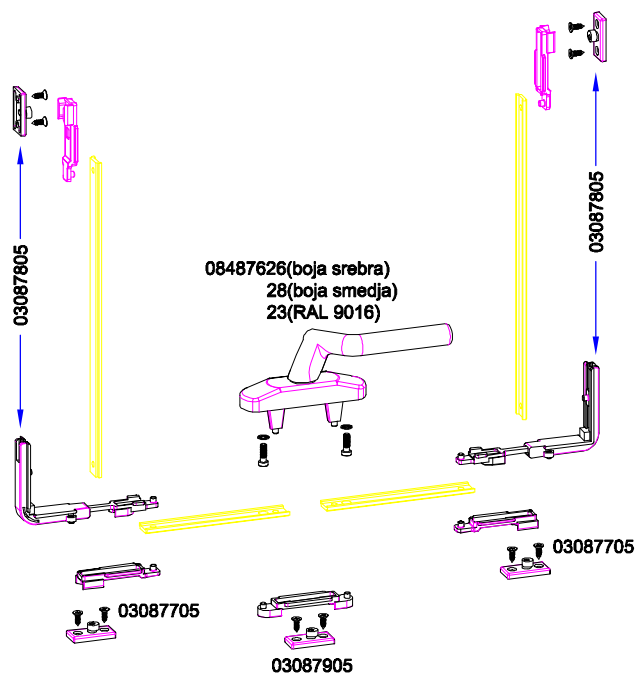
***ZAKLJUČAVANJE STRANICE "A" + "B"**

08487626 kom:1
03087905 kom:1
03087705 set:1
(pet zaključava.)
03087805 set:1

⊕ OKOV FASADNOG VENTUSA
SA MOGUĆNOŠĆU ZAKLJUČAVANJA
U VIŠE TOČAKA



Notter okov



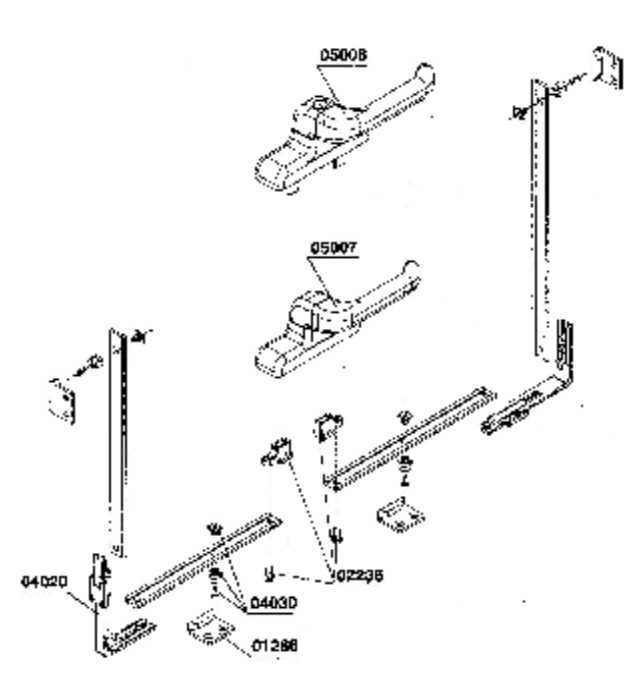
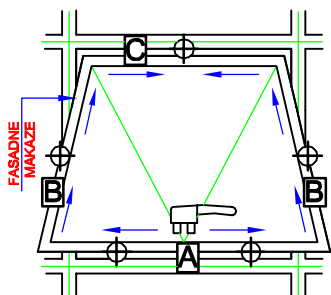
***ZAKLJUČAVANJE STRANICE "A"**

05008 kom:1
02236 set:1
01266 kom:2
04030 set:2

***ZAKLJUČAVANJE STRANICE "A" + "B"**

05008 kom:1
02236 set:1
01266 kom:4
04030 set:4
04020 kom:2

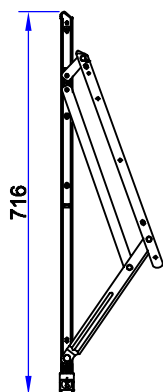
⊕ OKOV FASADNOG VENTUSA
SA MOGUĆNOŠĆU ZAKLJUČAVANJA
U VIŠE TOČAKA



Oznaka

Opis

MAKAZE FASADNOG VENTUSA



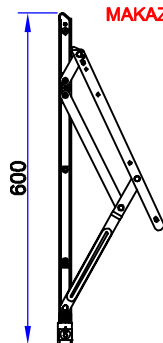
Makaze "G-U"

SKS 180
br.9-44768-00-P-8

visina 2000-2500 mm
širina < 1750 mm
težina < 180 kg
kut otvaranja - 20°

MATERIJAL INOX

MAKAZE FASADNOG VENTUSA



Makaze "G-U"

SKS 100
br.9-44766-00-P-8

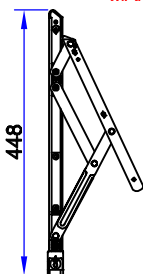
SKS 100 H
br.9-44767-00-P-8

SHS100
visina 1100-1500 mm
širina < 1750 mm
težina < 100 kg
kut otvaranja - 45°

SKS100H
visina 1500-2000 mm
širina < 1750 mm
težina < 100 kg
kut otvaranja - 20°

MATERIJAL INOX

MAKAZE FASADNOG VENTUSA



Makaze "G-U"

SKS 65
br.9-44764-00-P-8

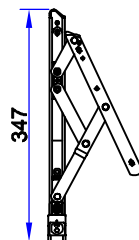
SKS 65 H
br.9-44765-00-P-8

SHS 65
visina 800-1100 mm
širina < 1750 mm
težina < 65 kg
kut otvaranja - 50°

SHS 65H
visina 600 -1100 mm
širina < 1750 mm
težina < 100 kg
kut otvaranja - 30°

MATERIJAL INOX

MAKAZE FASADNOG VENTUSA



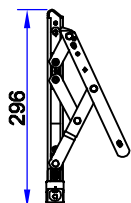
Makaze "G-U"

SKS 50
br.9-44763-00-P-8

visina 640-800 mm
širina < 1500 mm
težina < 50 kg
kut otvaranja - 50°

MATERIJAL INOX

MAKAZE FASADNOG VENTUSA



Makaze "G-U"

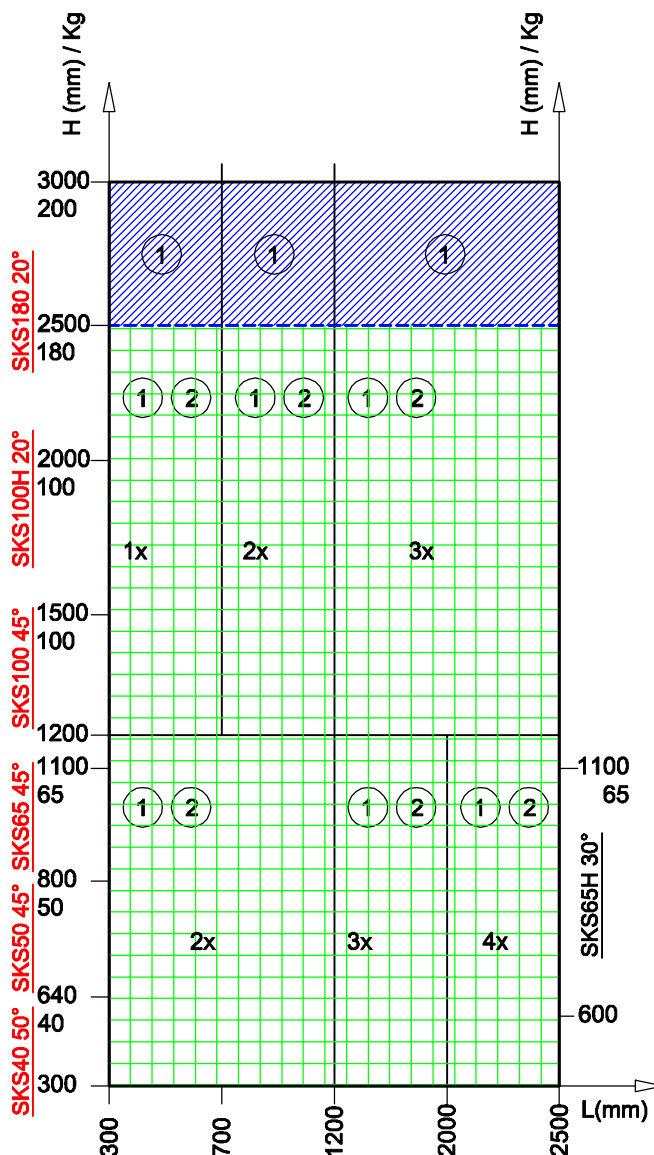
SKS 40
br.9-44762-00-P-8

visina 300-640 mm
širina < 1200 mm
težina < 40 kg
kut otvaranja - 50°

MATERIJAL INOX

Diagram za G-U makaze

Diagram nosivosti



- ① — Otvaranje elektromotorom
- ② — Ručno otvaranje



ND 9-44770-00-0-1
pasivno klučanje gornje
(prihvatnik)

Oznaka


Opis

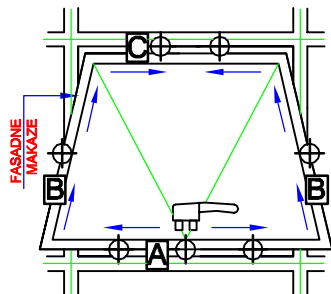
***ZAKLJUČAVANJE
STRANICE "A"**

-6-34539-08-0-1 kom:1
 -6-30959-01-0-1 kom:2
 -G-46551-96-0-1 kom:1
 -944770-00-0-1 kom:2
 -6-24529-08-0-1 kom: 2
 -M5x12 DIN
 EN ISO 14583/A2 kom:2
 -Samourezujući vijak
 4,8x13 DIN EN ISO 14585/A2
 kom 8
 (dva zaključava.)

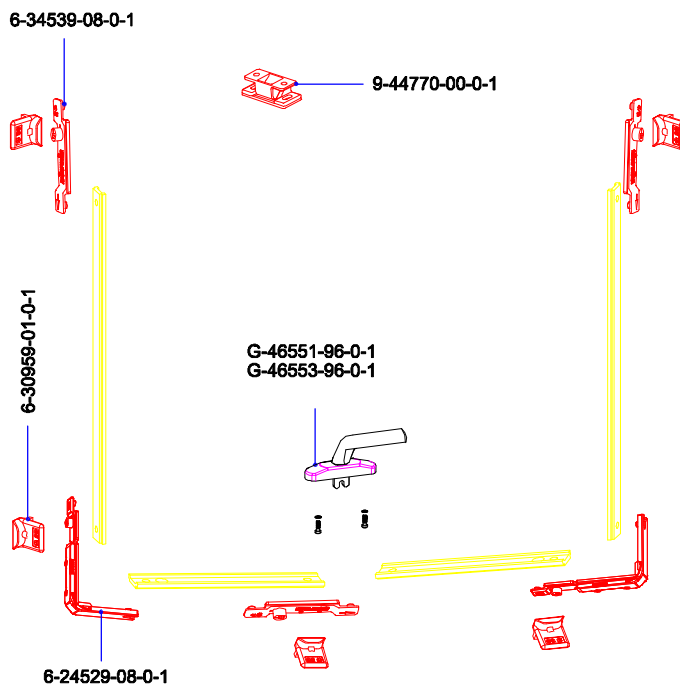
***ZAKLJUČAVANJE
STRANICE "A" + "B"**


-6-34539-08-0-1 kom:3
 -6-30959-01-0-1 kom:5
 -G-46551-96-0-1 kom:1
 -9-44770-00-0-1 kom:2
 -6-24529-08-0-1 kom: 2
 -M5x12 DIN
 EN ISO 14583/A2 kom:2
 -Samourezujući vijak
 4,8x13 DIN EN ISO 14585/A2
 kom : 8
 (pet zaključava.)

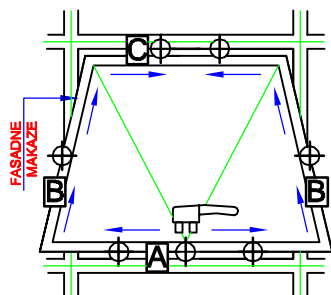
 **OKOV FASADNOG VENTUSA
SA MOGUĆNOŠĆU ZAKLJUČAVANJA
U VIŠE TOČAKA**



G-U okov



 **OKOV FASADNOG VENTUSA
SA MOGUĆNOŠĆU ZAKLJUČAVANJA
U VIŠE TOČAKA**



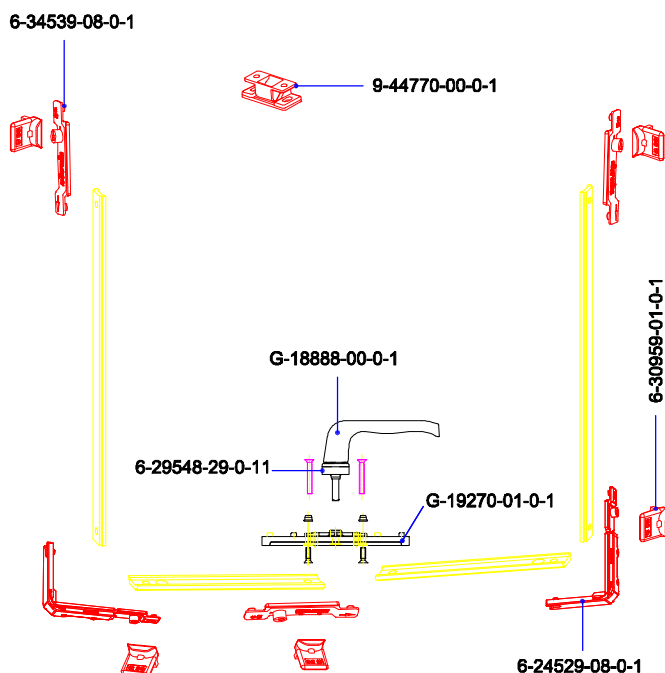
***ZAKLJUČAVANJE
STRANICE "A"**


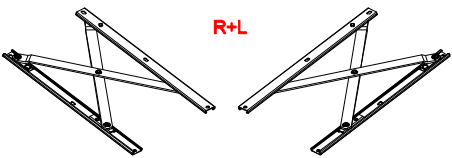
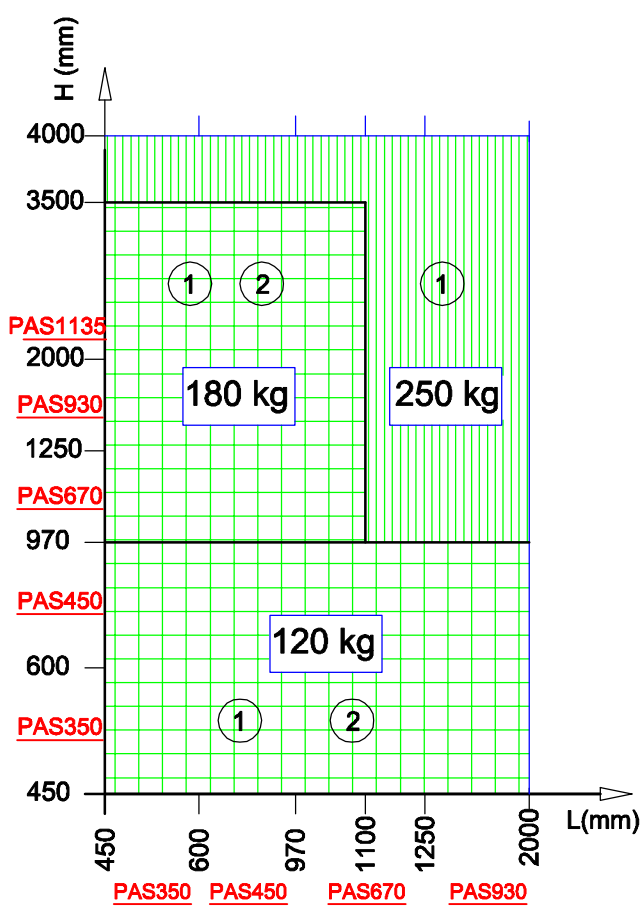
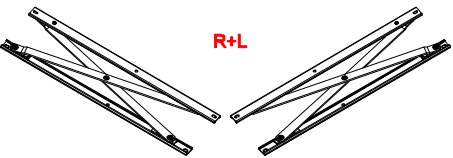
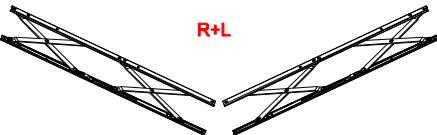
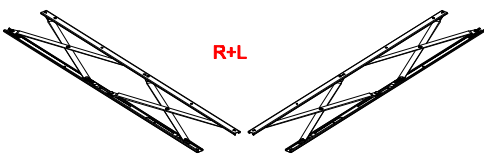
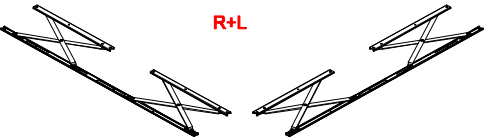
-6-34539-08-0-1 kom:1
 -6-30959-01-0-1 kom:2
 -G-18888-00-0-1 kom:1
 -9-44770-00-0-1 kom:2
 -6-24529-08-0-1 kom:2
 -4,8x13 DIN EN ISO 14585/A2
 kom 8
 -G-19270-01-0-1
 mehanizam FERCO kom :1
 -6-29548-29-0-11 kom: 1
 -M 5x25 ISO 7046-1/A2 kom:2
 -M 5X35 ISO 7046-1/A2 kom:2
 (dva zaključava.)

***ZAKLJUČAVANJE
STRANICE "A" + "B"**

-6-34539-08-0-1 kom:3
 -6-30959-01-0-1 kom:5
 -G-18888-00-0-1 kom:1
 -9-44770-00-0-1 kom: 2
 -6-24529-08-0-1 kom: 2
 -4,8x13 DIN EN ISO 14585/A2
 kom 8
 -G-19270-01-0-1
 mehanizam FERCO kom :1
 -6-29548-29-0-11 kom :1
 -M 5x35 ISO 7046-1/A2 kom:2
 -M5x25 ISO 7046-1/A2 kom:2
 (pet zaključava.)

G-U okov



Oznaka	Opis	
Makaze "G-U" PAS250 br.6-34809-00-R-8	MAKAZE ZA PARALELNO OTVARANJE  MATERIJAL INOX R Kontrolne makaze	
Makaze "G-U" PAS350 br.6-34810-00-9-8	MAKAZE ZA PARALELNO OTVARANJE  R+L visina 380-500 mm težina < 100 kg MATERIJAL INOX Ručno otvaranje - 150 mm Otvaranje elektromotorom - 180 mm	Diagram za G-U makaze Diagram nosivosti 
Makaze "G-U" PAS450 br.6-34811-00-9-8	MAKAZE ZA PARALELNO OTVARANJE  R+L visina 480 - 720 mm težina < 100 kg MATERIJAL INOX Ručno otvaranje - 150 mm Otvaranje elektromotorom - 250 mm	
Makaze "G-U" PAS670 br.6-34812-00-9-8	MAKAZE ZA PARALELNO OTVARANJE  R+L visina 700 - 1100 mm težina < 200 kg MATERIJAL INOX Ručno otvaranje - 150 mm Otvaranje elektromotorom - 150 mm	
Makaze "G-U" PAS930 br.6-34813-00-9-8	MAKAZE ZA PARALELNO OTVARANJE  R+L visina 960 - 2000 mm težina < 200 kg MATERIJAL INOX Ručno otvaranje - 150 mm Otvaranje elektromotorom - 250 mm	
Makaze "G-U" PAS1135 br.6-35142-00-9-8	MAKAZE ZA PARALELNO OTVARANJE  R+L visina 1400-2100 mm težina < 200 kg MATERIJAL INOX Ručno otvaranje - 150 mm Otvaranje elektromotorom - 250 mm	

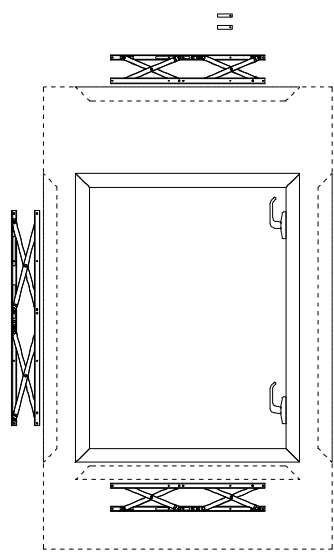
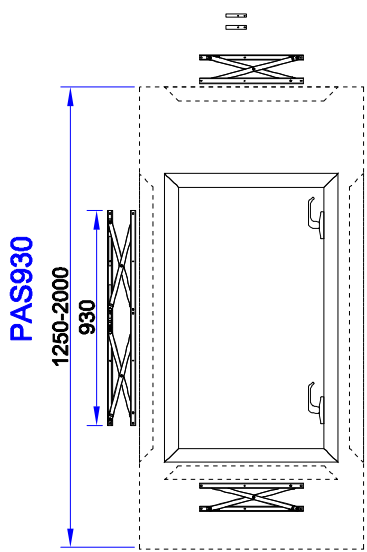
- ① — Otvaranje elektromotorom
- ② — Ručno otvaranje

9-40229-00-1 

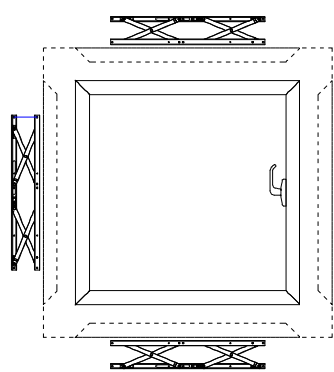
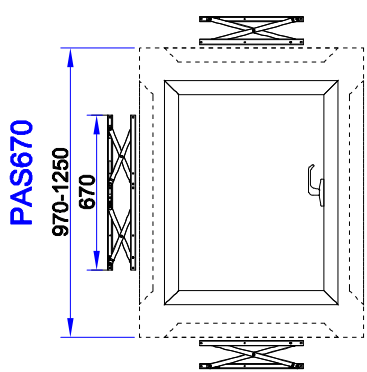
IZBOR SCHEMA ZA RUČNO PARALELNO OTVARANJE

2x HB2 graničnik staviti na 150 mm jedan sa svake strane okvira

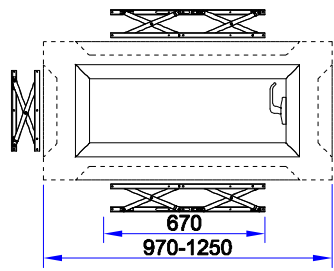
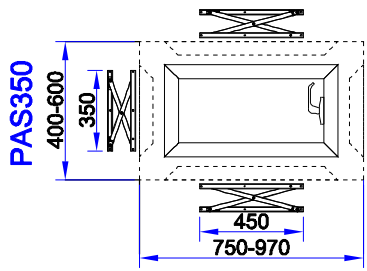
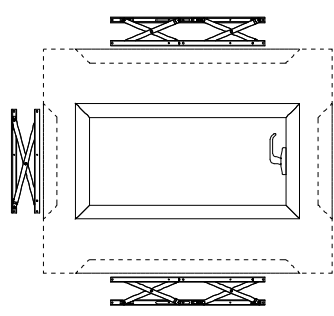
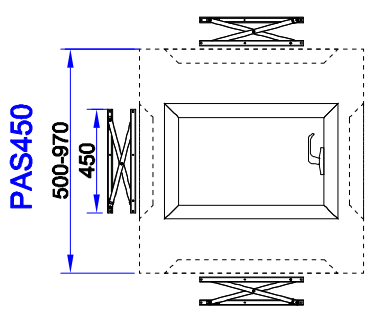
2x HB2 graničnik staviti na 150 mm jedan sa svake strane okvira



dvije ručke prema dolje



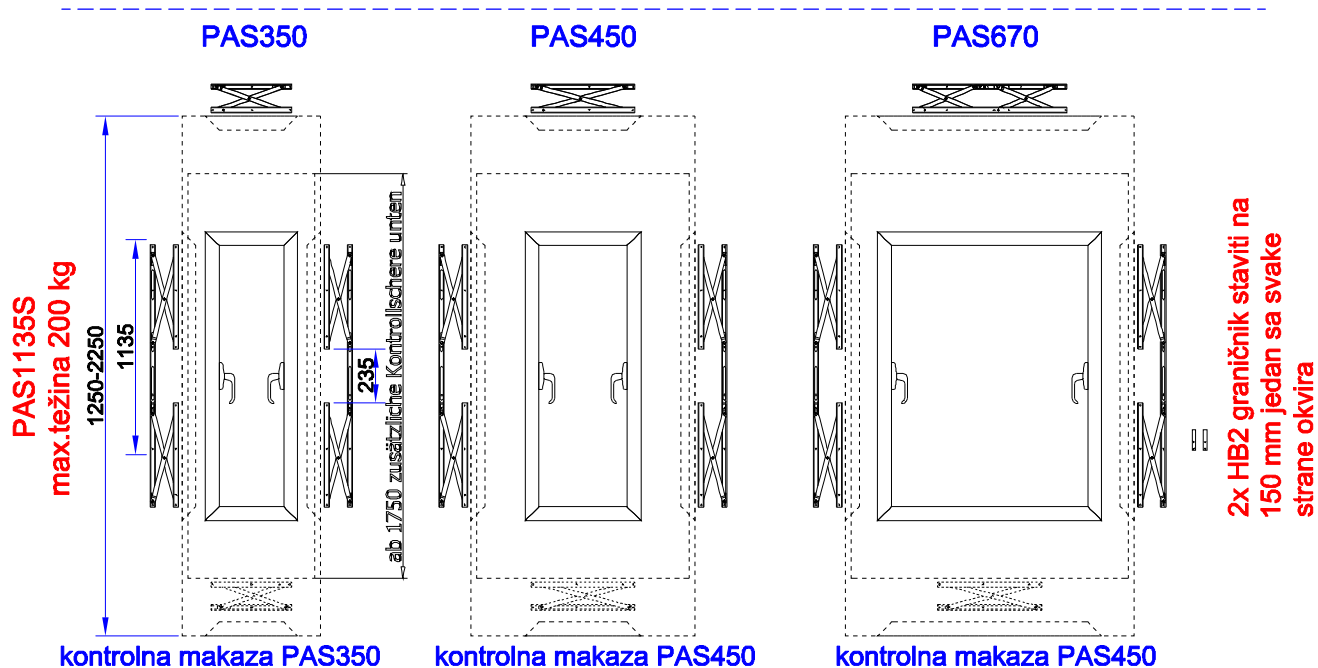
jedna ručka prema dolje



PAS450
max.težina 100 kg

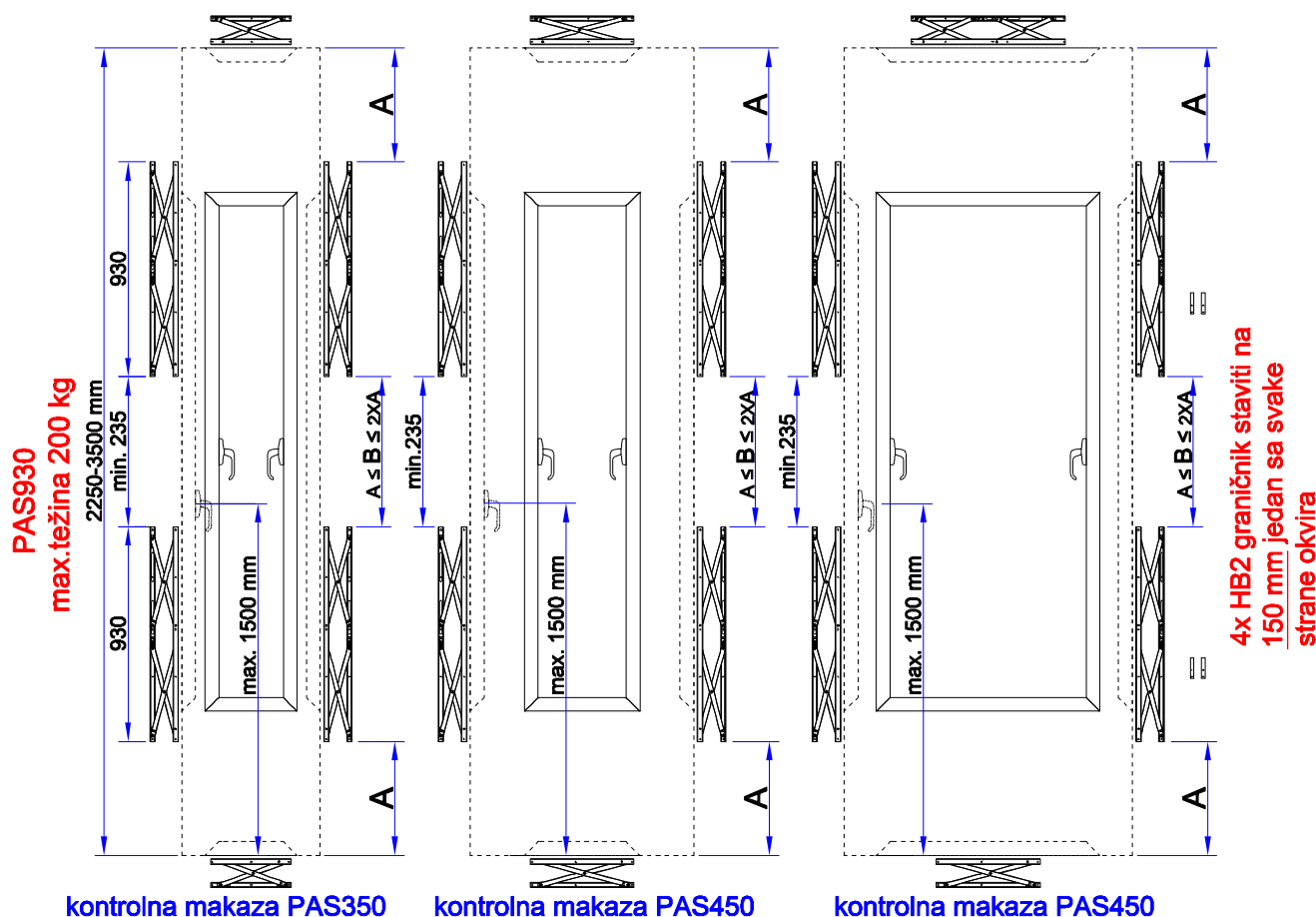
PAS450
max.težina 200 kg

IZBOR SHEMA ZA RUČNO PARALELNO OTVARANJE



2x HB2 graničnik staviti na 150 mm jedan sa svake strane okvira

dvije ručke na bočnim stranama



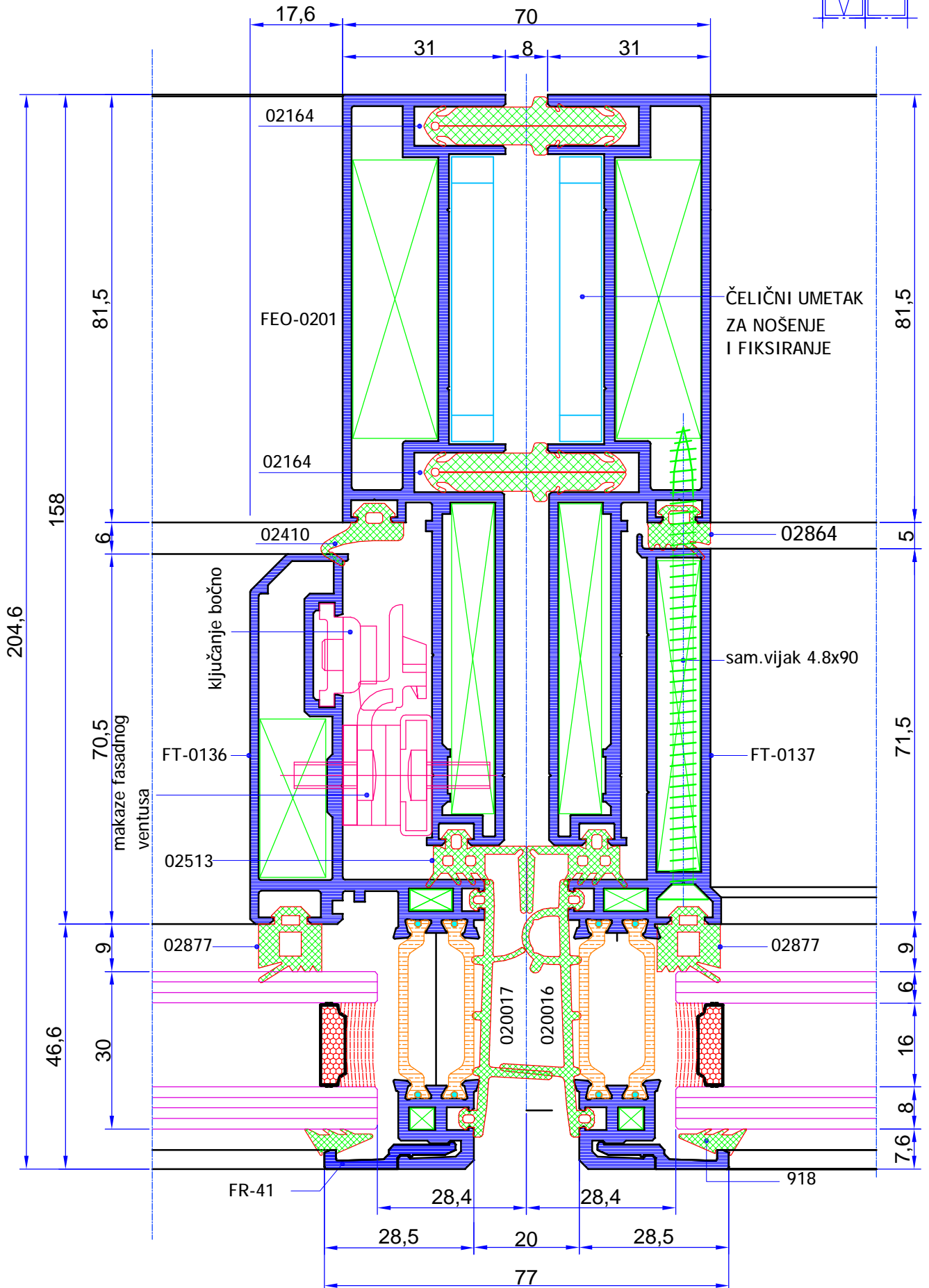
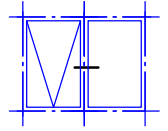
4x HB2 graničnik staviti na 150 mm jedan sa svake strane okvira

- zaključavanja ne smije prekoračiti visinu od 1500 mm

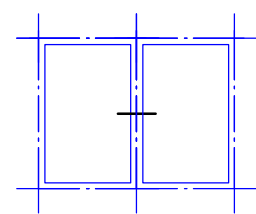
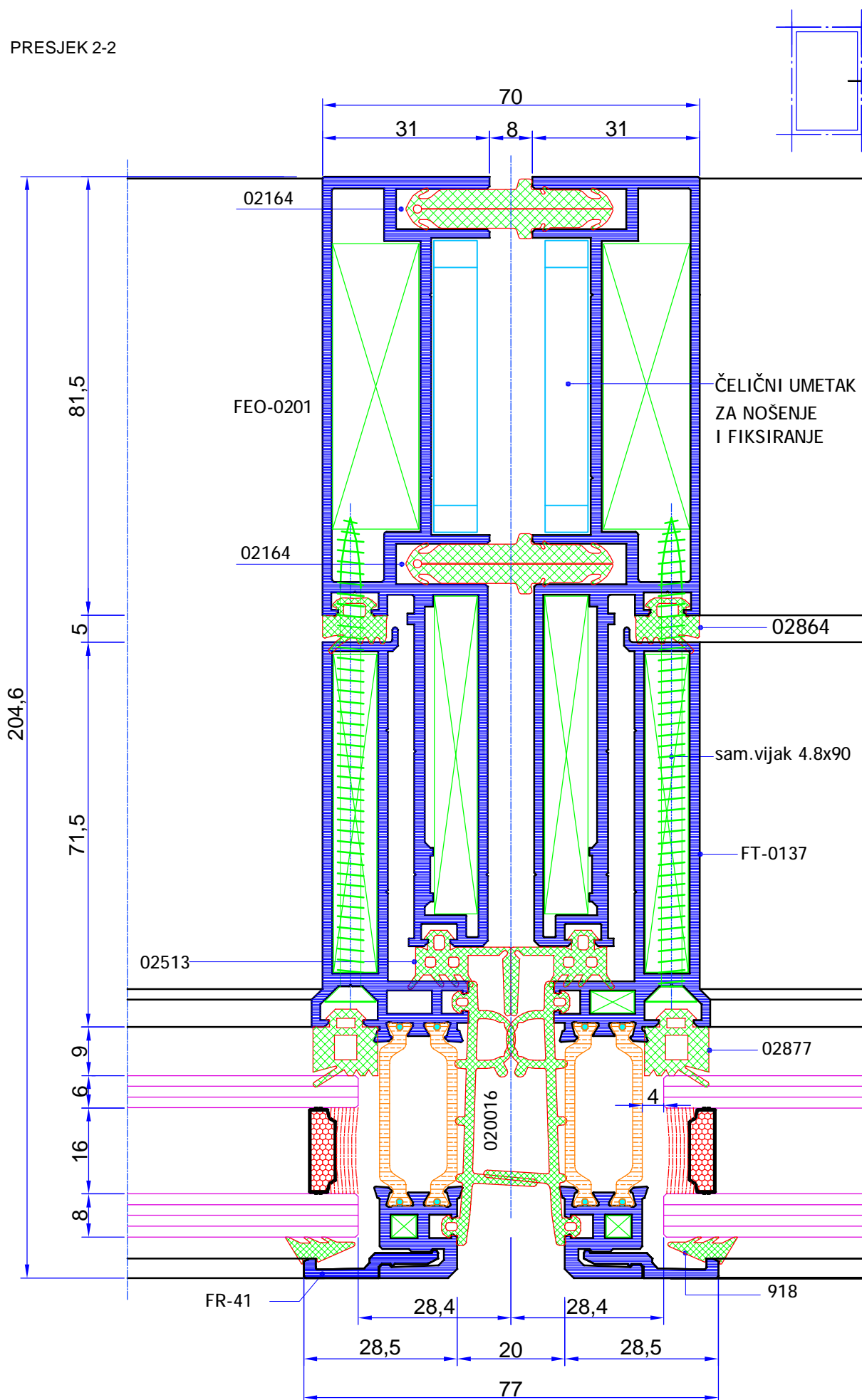
Oznaka	Izgled-presjek	Opis	Materijal
02781/S		Vežna brtva dva elementa	EPDM
KUTNA SPOJNICA 020016/K		KUTNA SPOJNICA Centralne vanjske brtve	EPDM
KUTNA SPOJNICA 020017/K		KUTNA SPOJNICA Centralne vanjske brtve krila ventusa	EPDM
020016		Centralna vanjska brtva	EPDM
020017		Centralna vanjska brtva samo na krilu ventusa	EPDM
02513		Srednja brtva	EPDM
02675/S		Srednja brtva	EPDM
02410/S		Unutarnja brtva prema otvoru	EPDM
918		Brтва prema staklu vanjska Nosi 4 mm	EPDM

Oznaka	Izgled-presjek	Opis	Materijal
02892		Brтва prema staklu unutarnja Nosi 13 mm	EPDM
02856		Brтва prema staklu unutarnja Nosi 11 mm	EPDM
02877		Brтва prema staklu unutarnja Nosi 9 mm	EPDM
1966		Brтва prema staklu unutarnja Nosi 7 mm	EPDM
02864		Brтва prema staklu unutarnja (Brтва prema fixnom otvoru unutarnja) Nosi 5 mm	EPDM
PI-10-11		Distancni PVC profil parapetnog djela fasade 18 mm	PVC
PI-10-12		Distancni PVC profil parapetnog djela fasade 24 mm	PVC

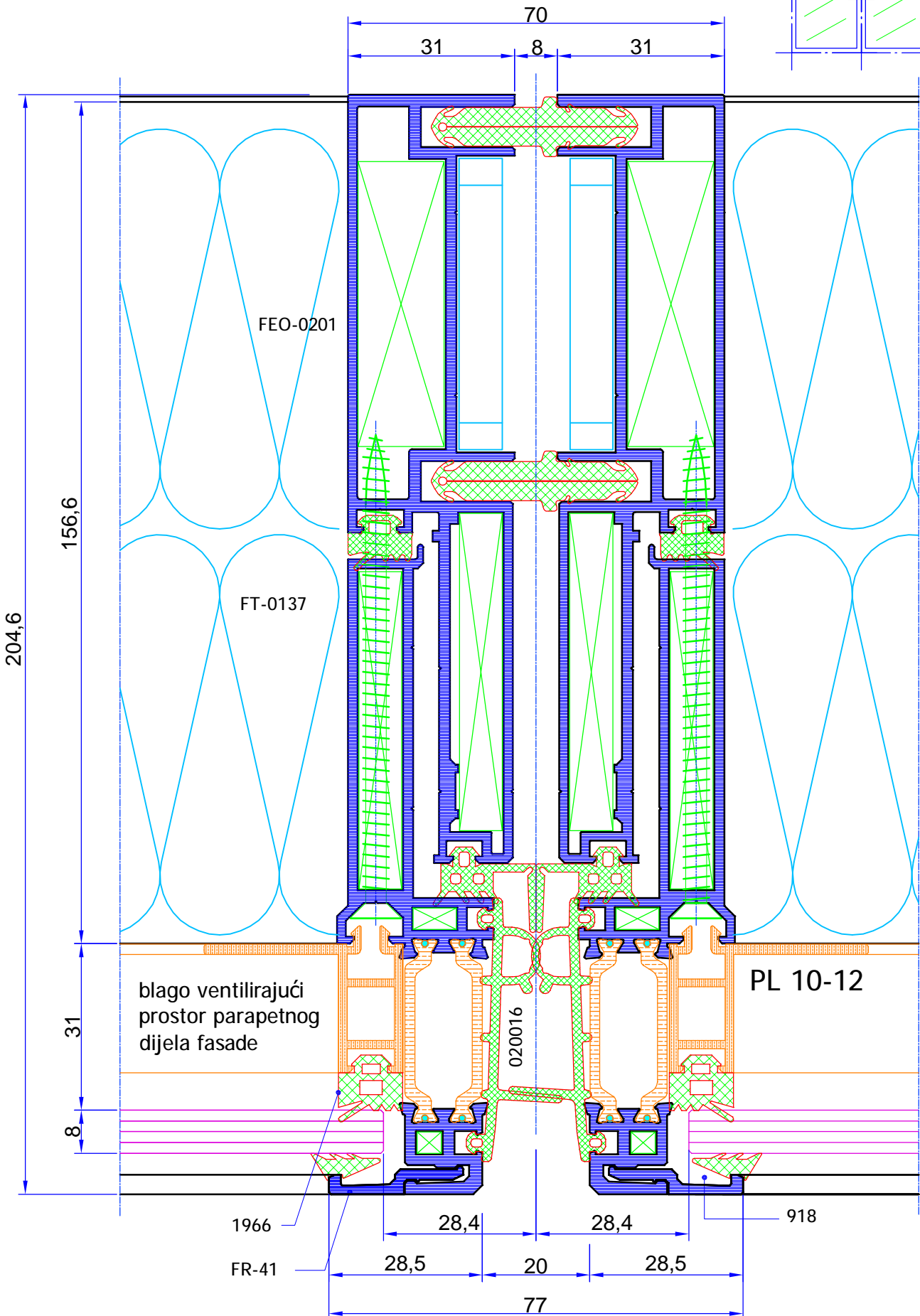
PRESJEK 1-1



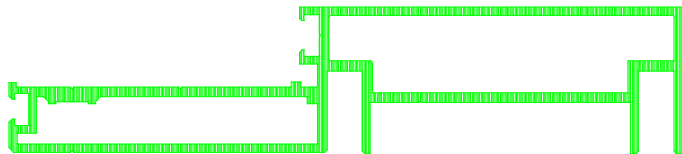
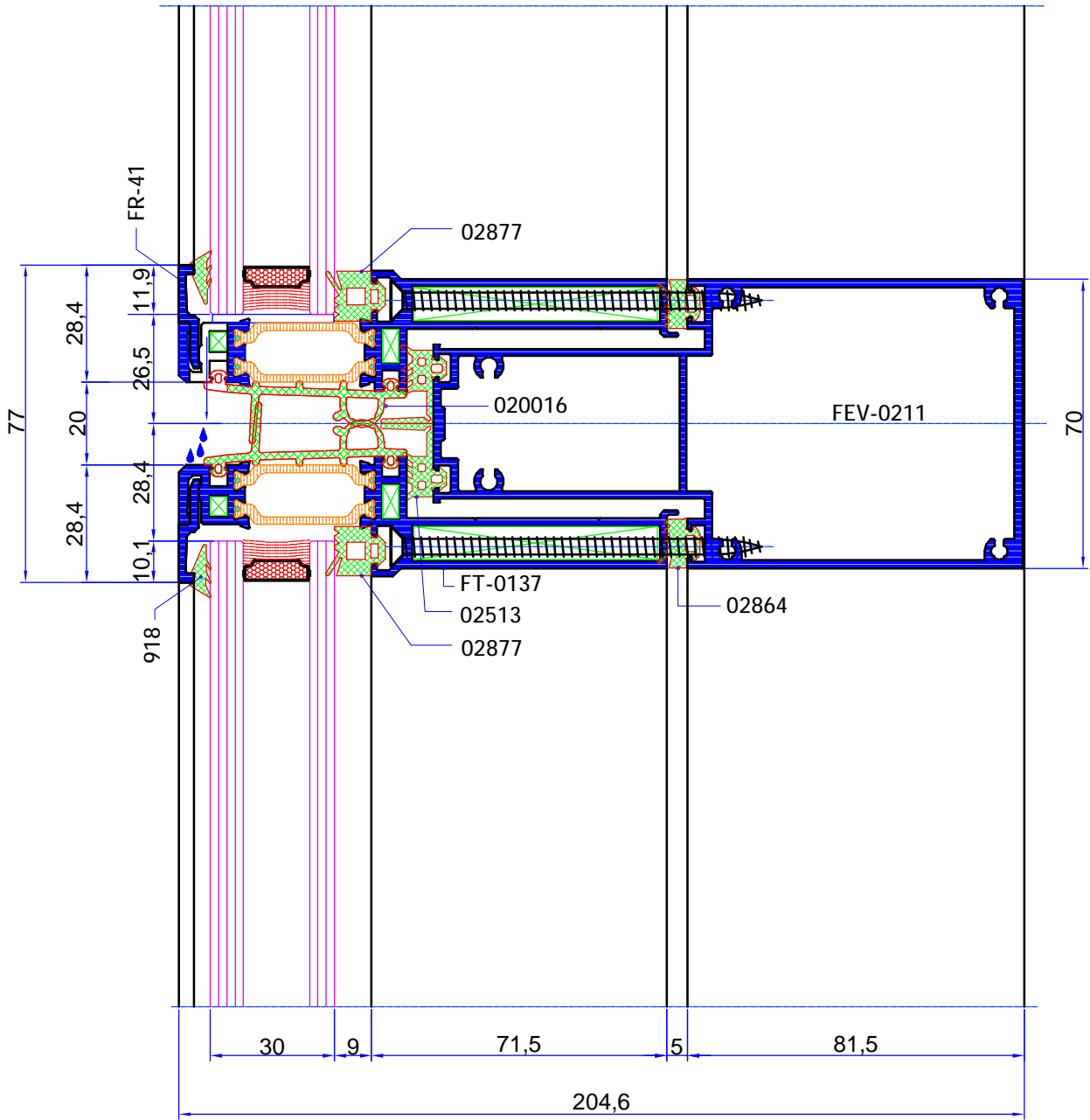
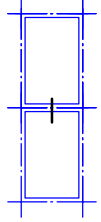
PRESJEK 2-2



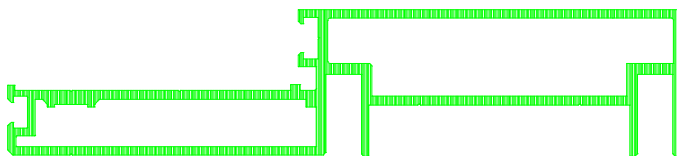
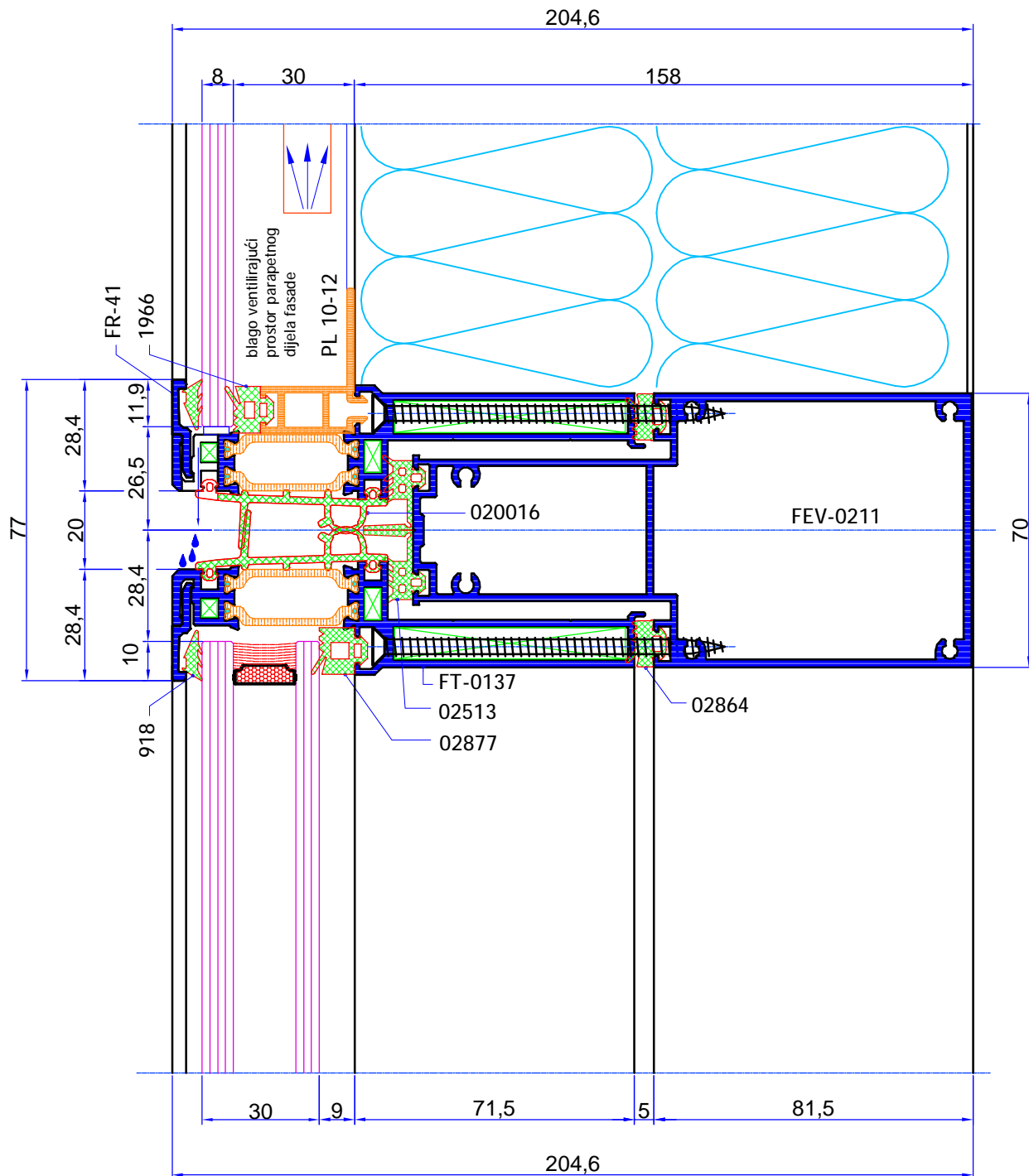
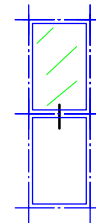
PRESJEK 3-3



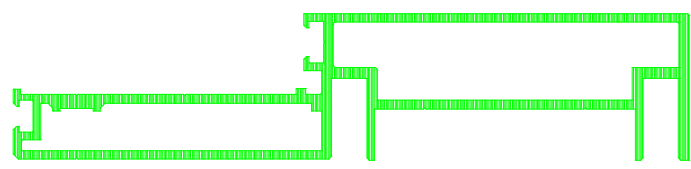
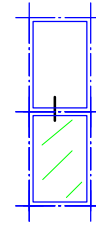
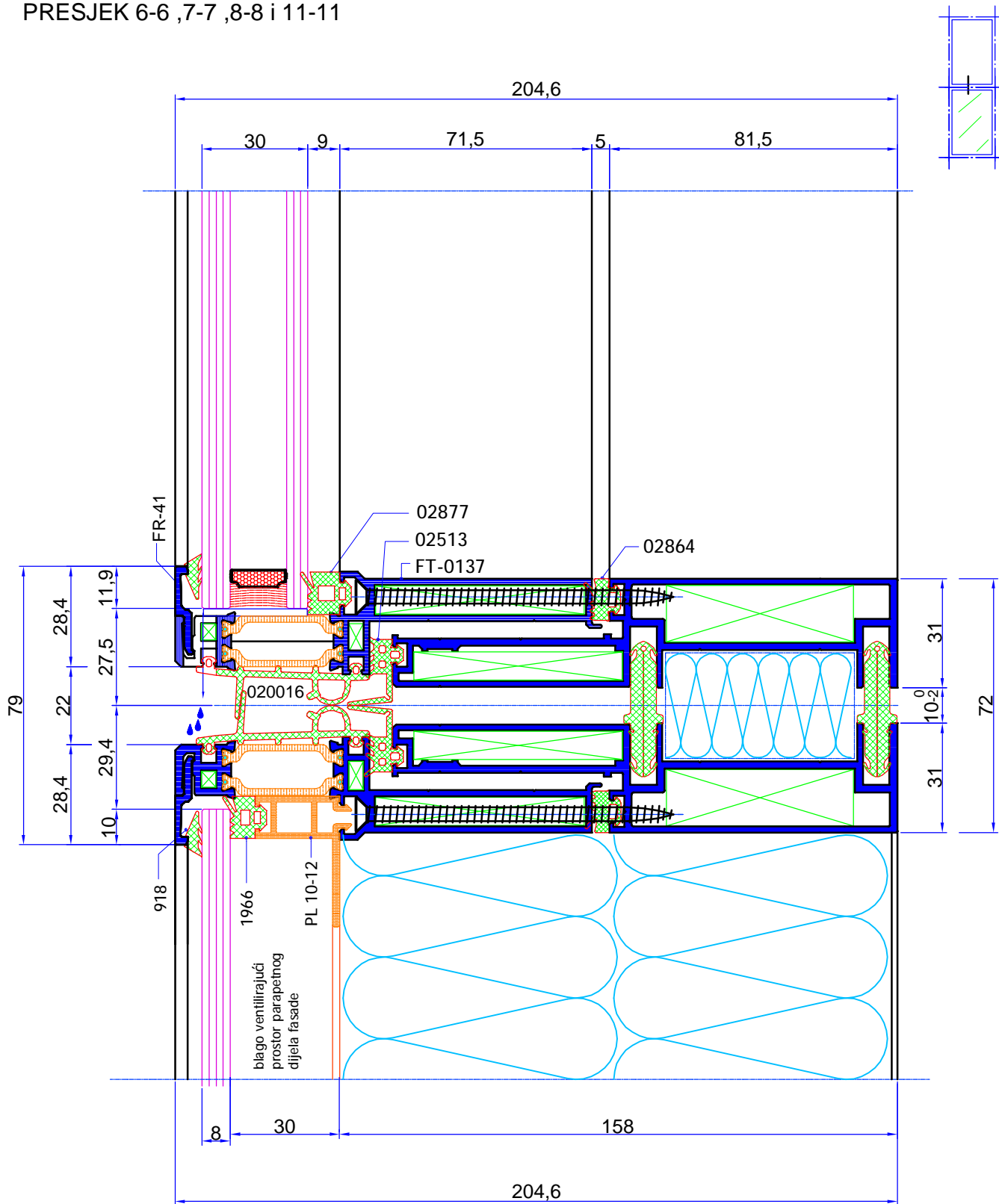
PRESJEK 4-4



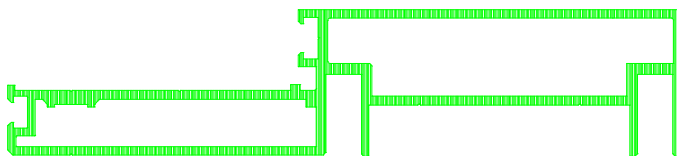
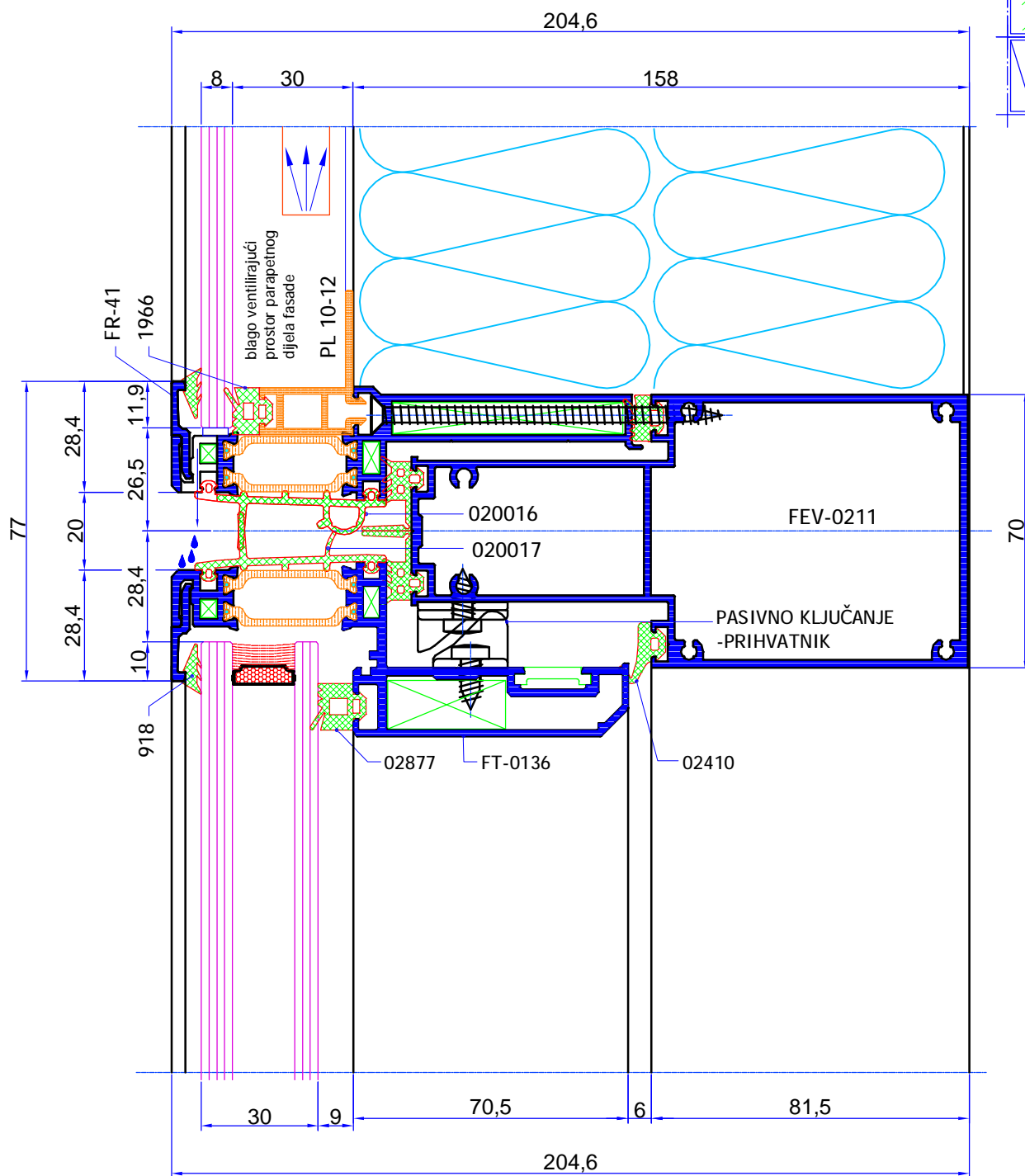
PRESJEK 5-5



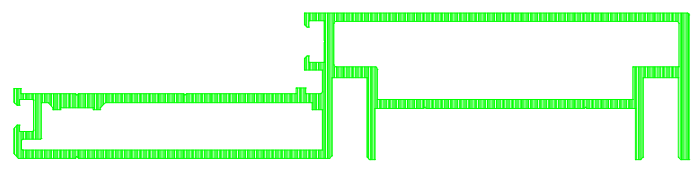
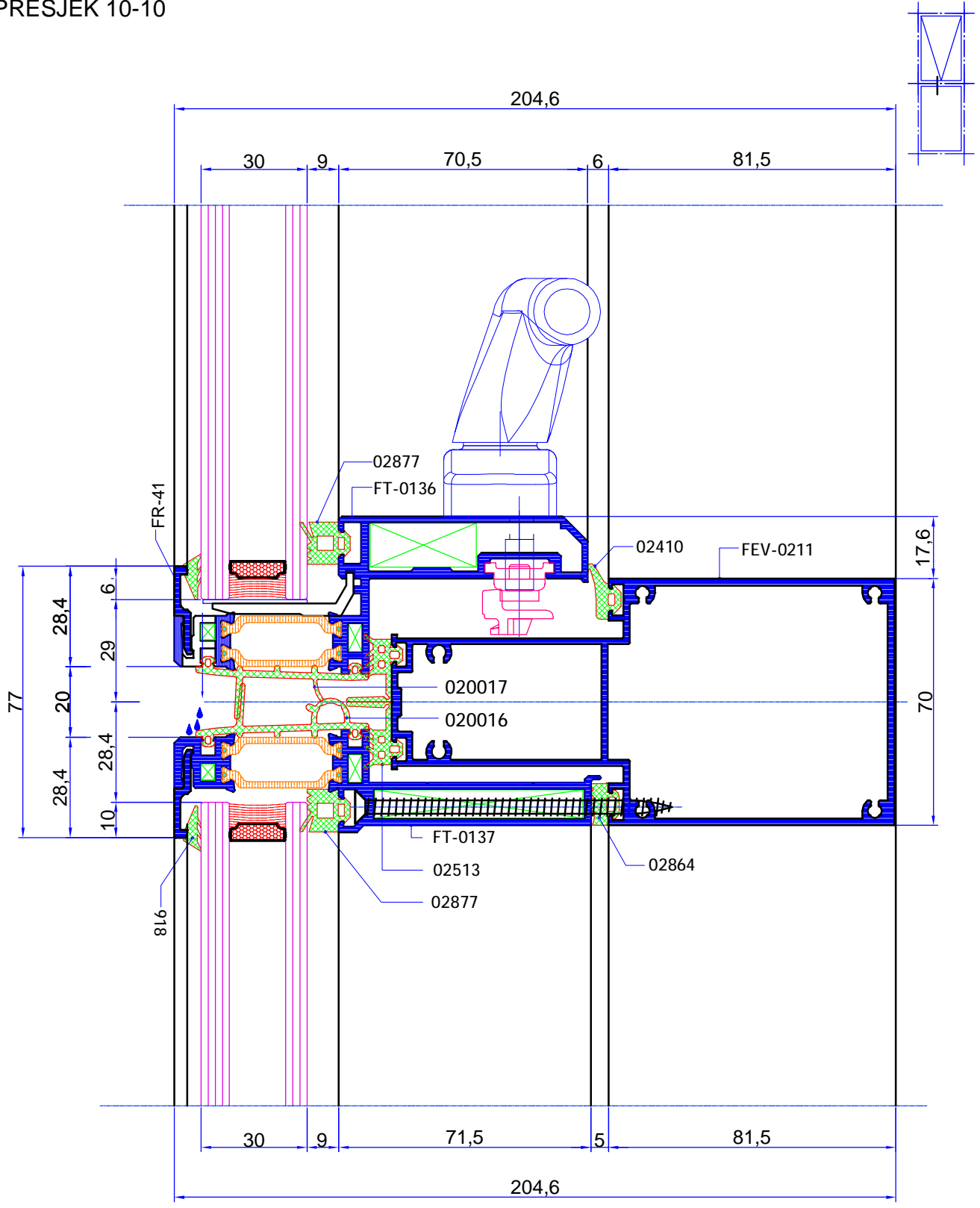
PRESJEK 6-6 ,7-7 ,8-8 i 11-11



PRESJEK 9-9

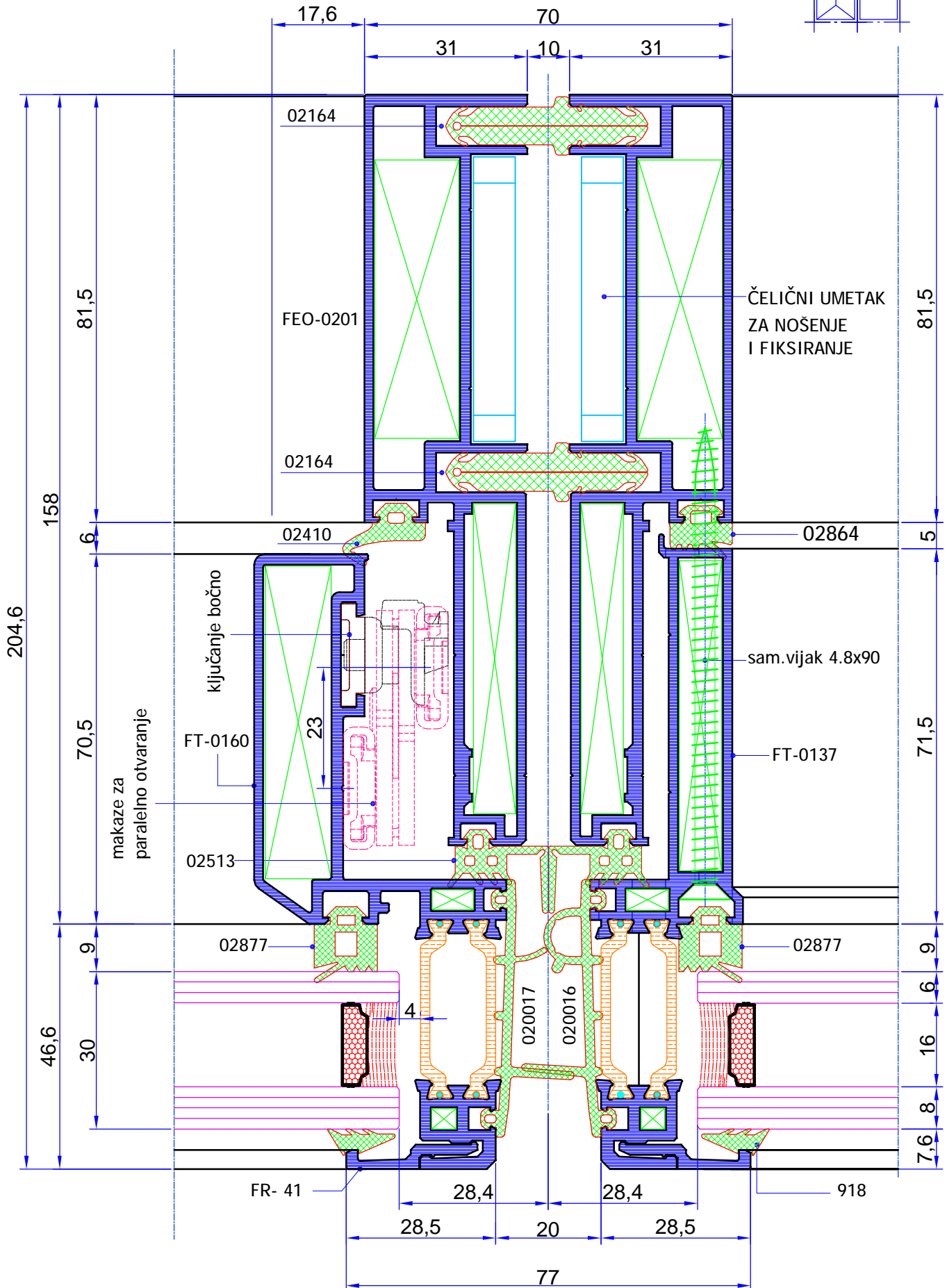
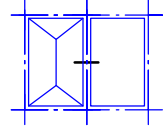


PRESJEK 10-10



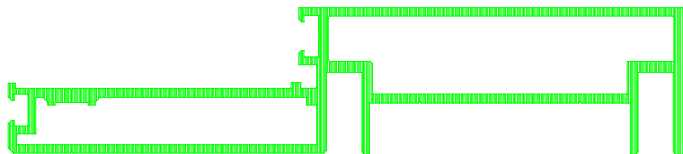
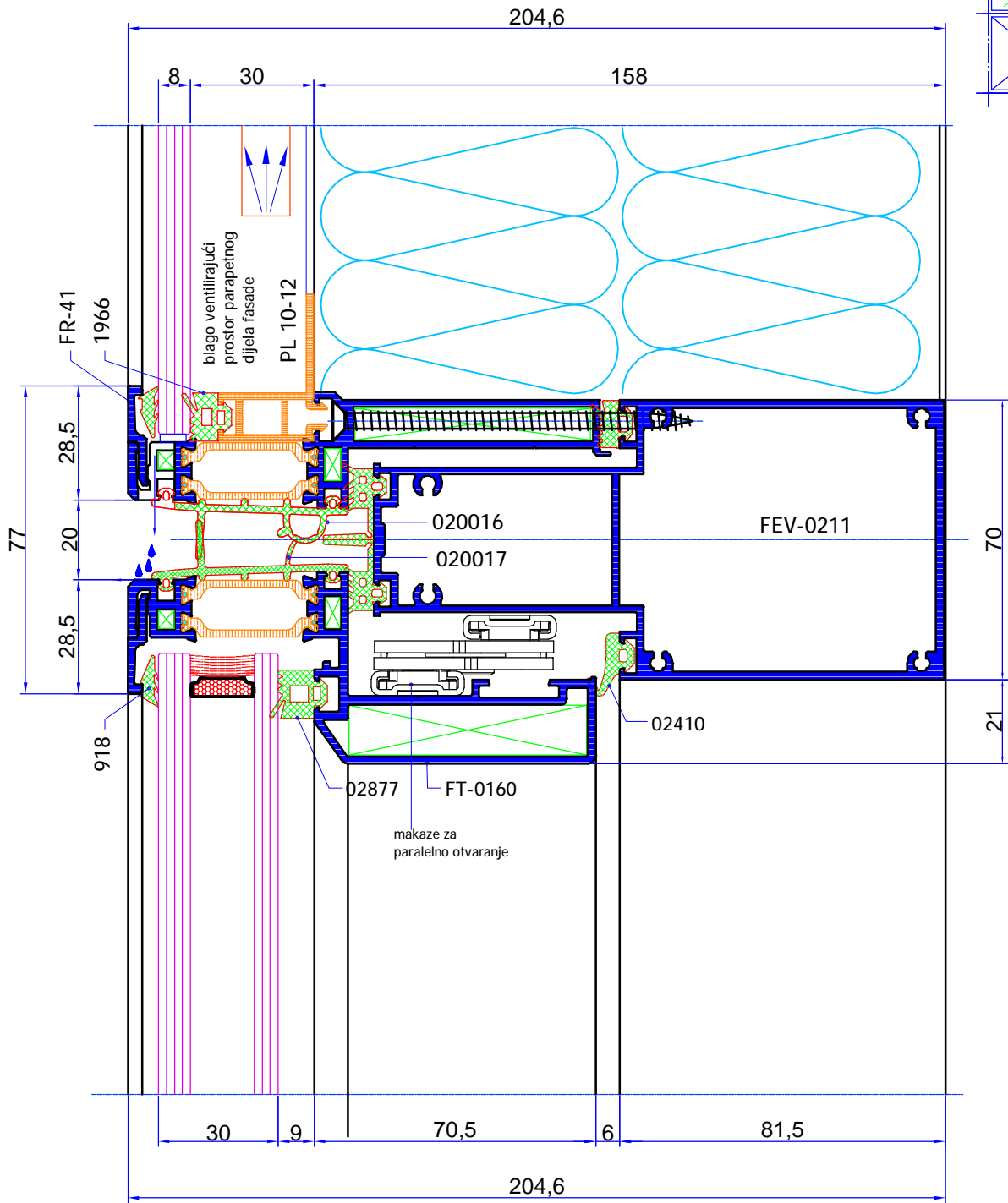
PRESJEK 1-1

paralelno otvaranje



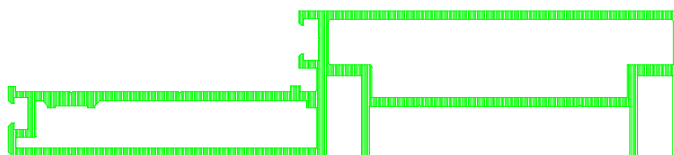
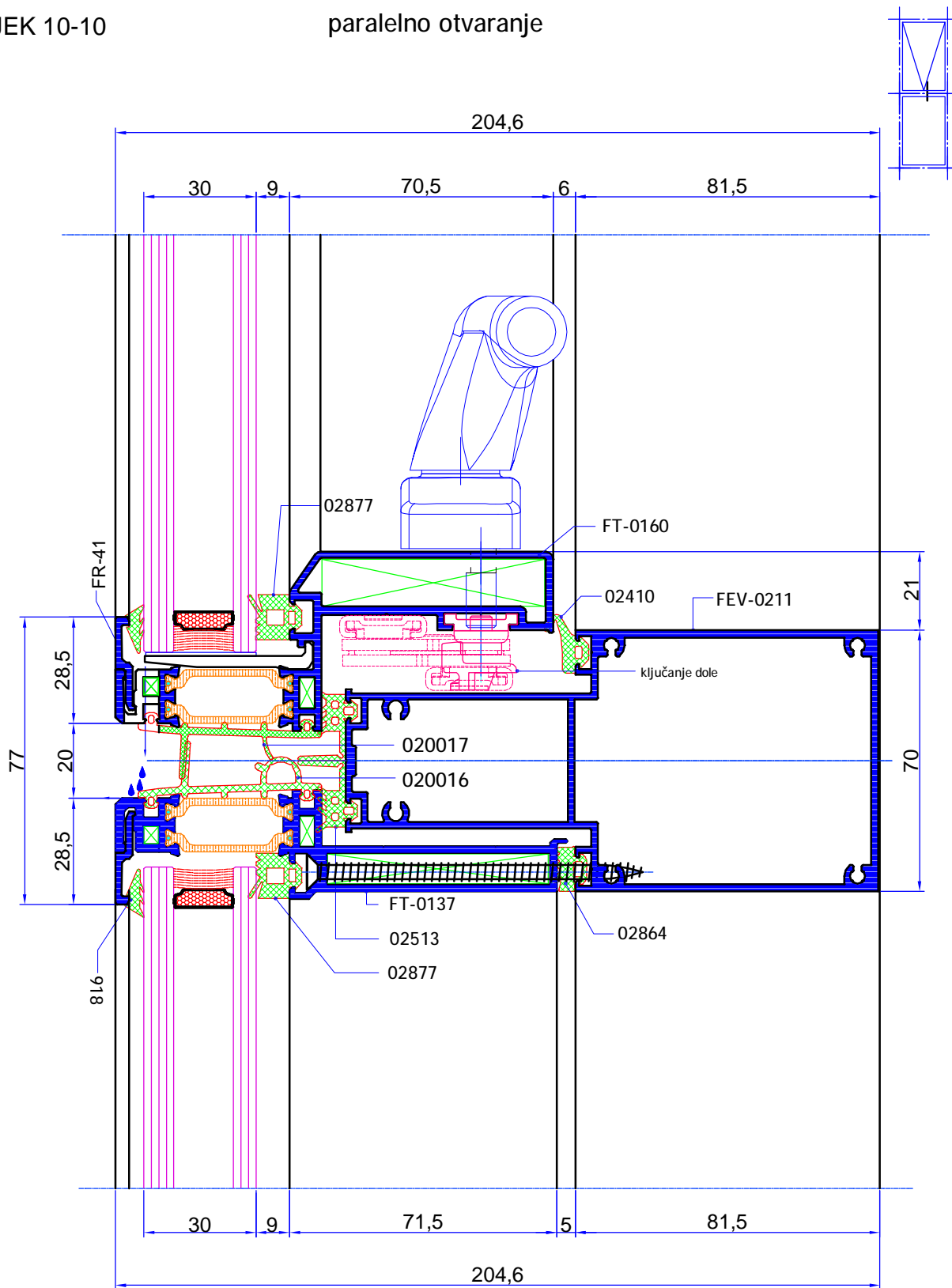
PRESJEK 9-9

paralelno otvaranje

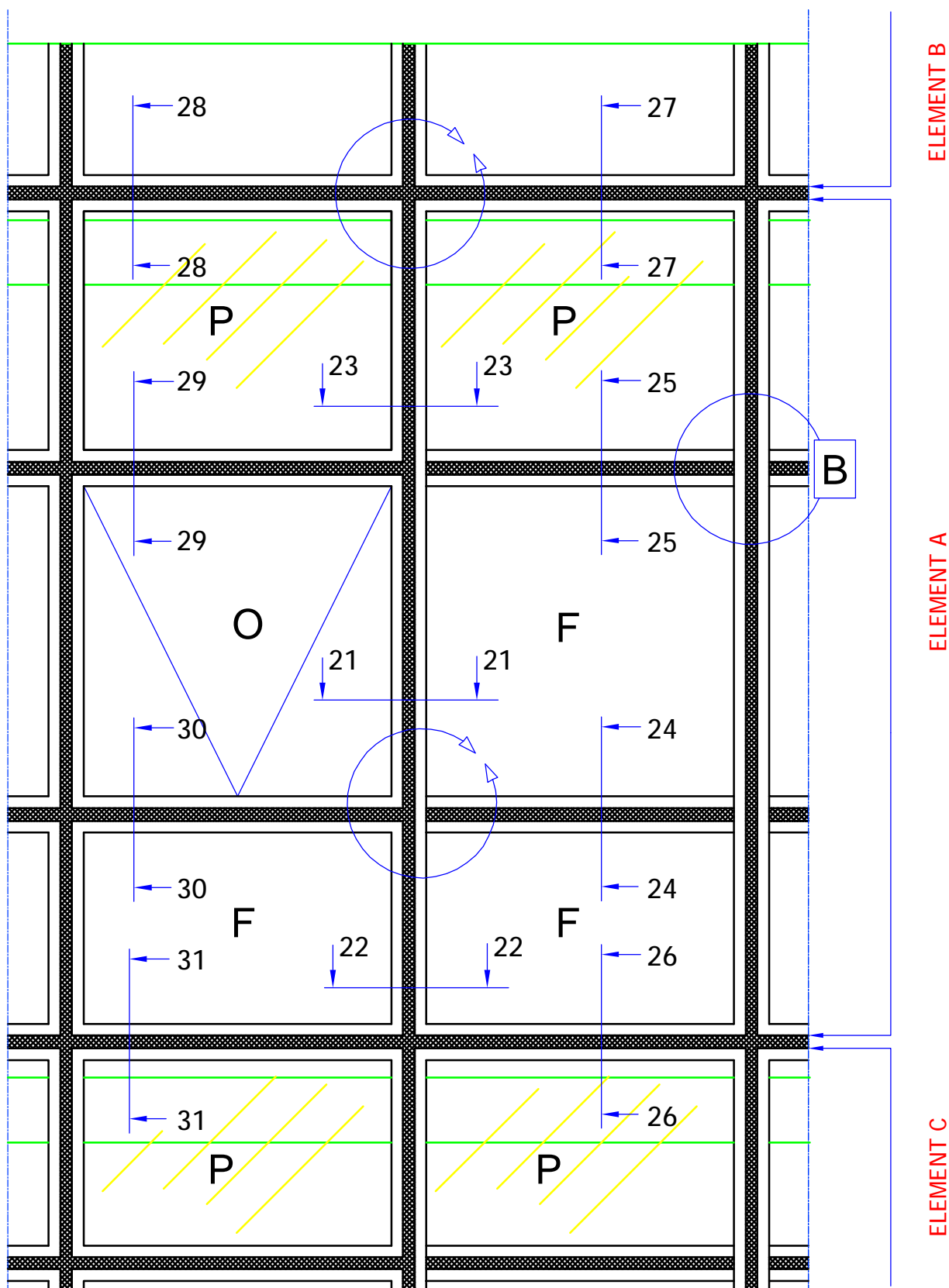


PRESJEK 10-10

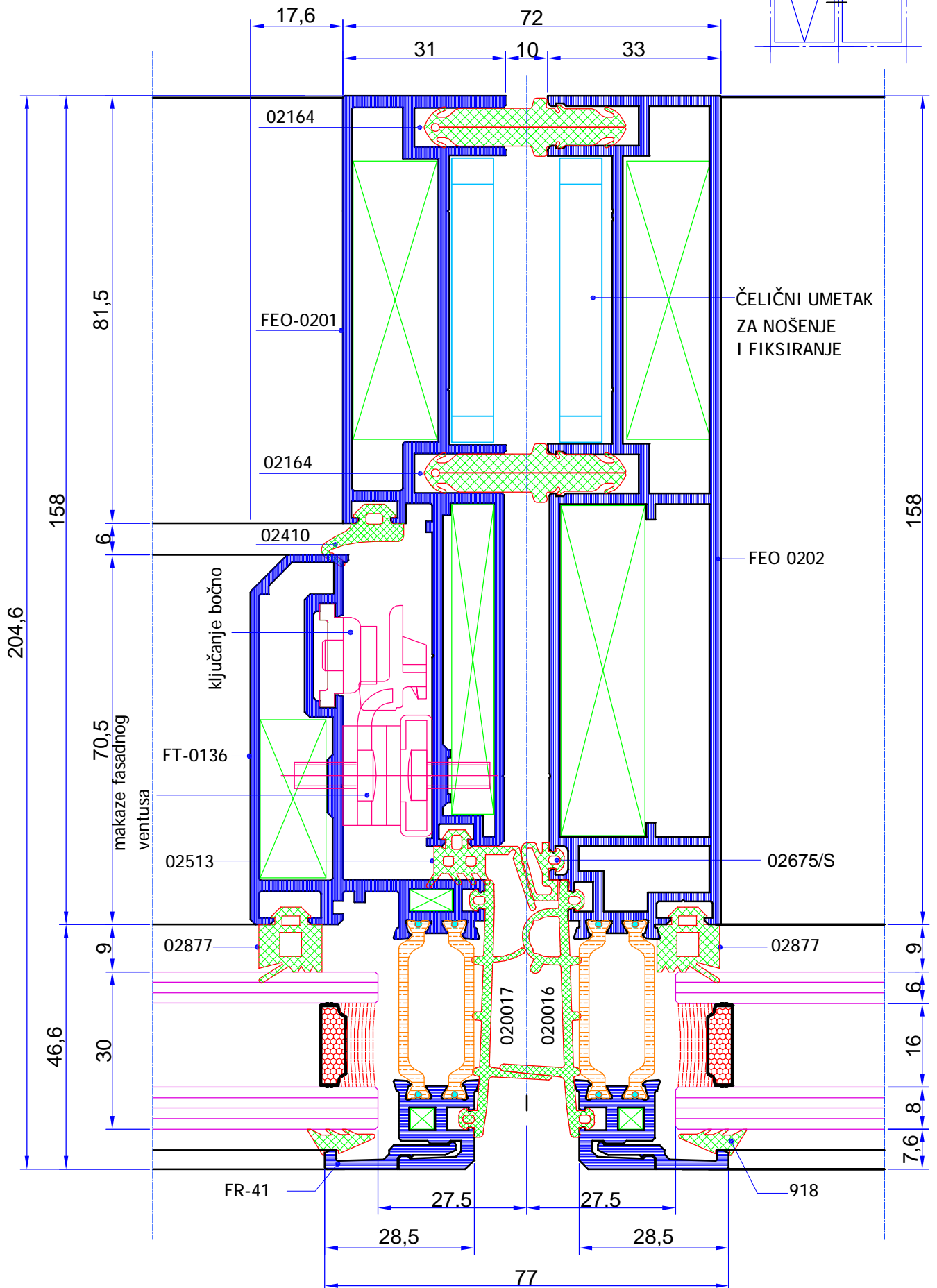
paralelno otvaranje



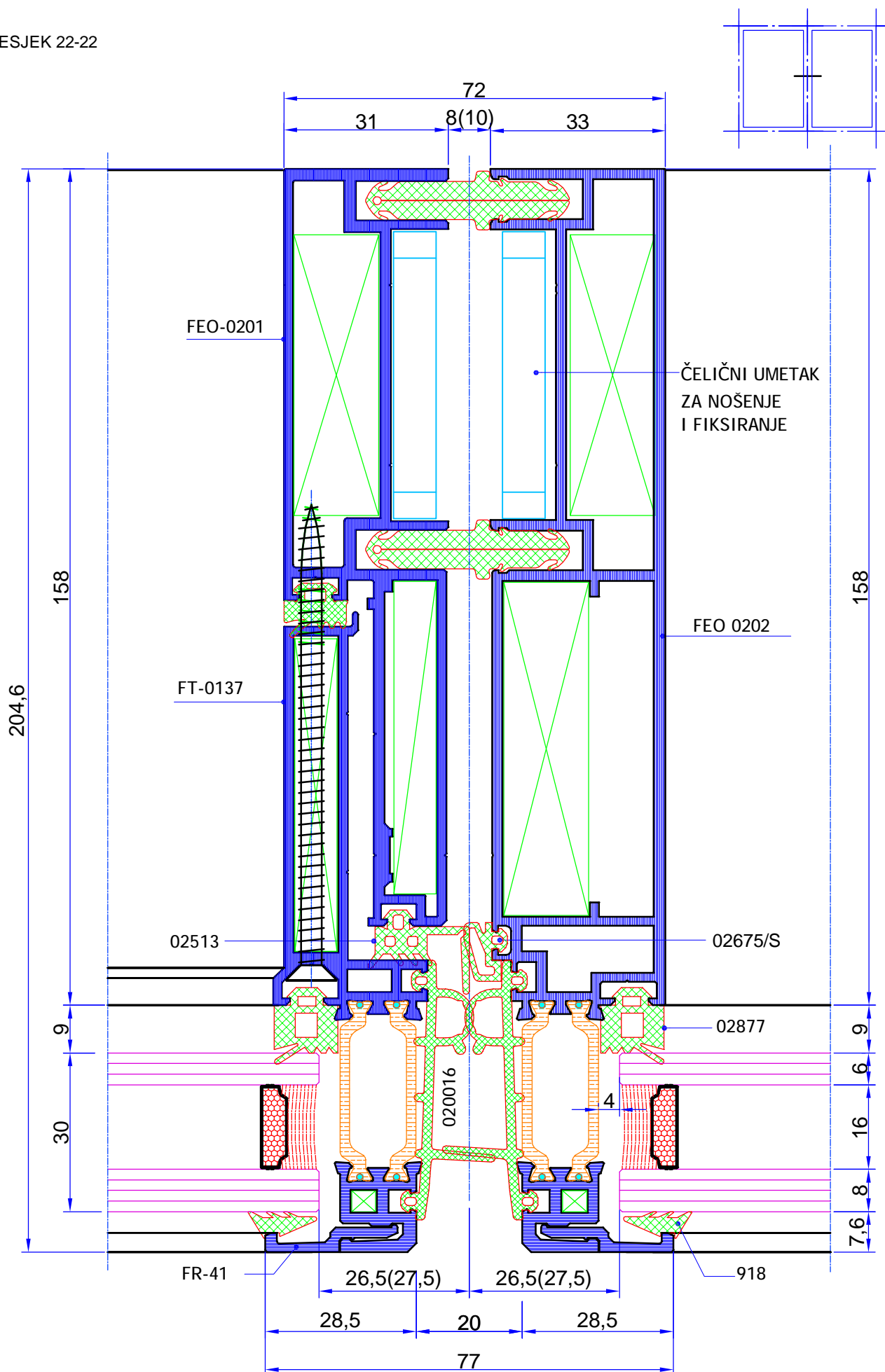
FASADA 70 E tip B



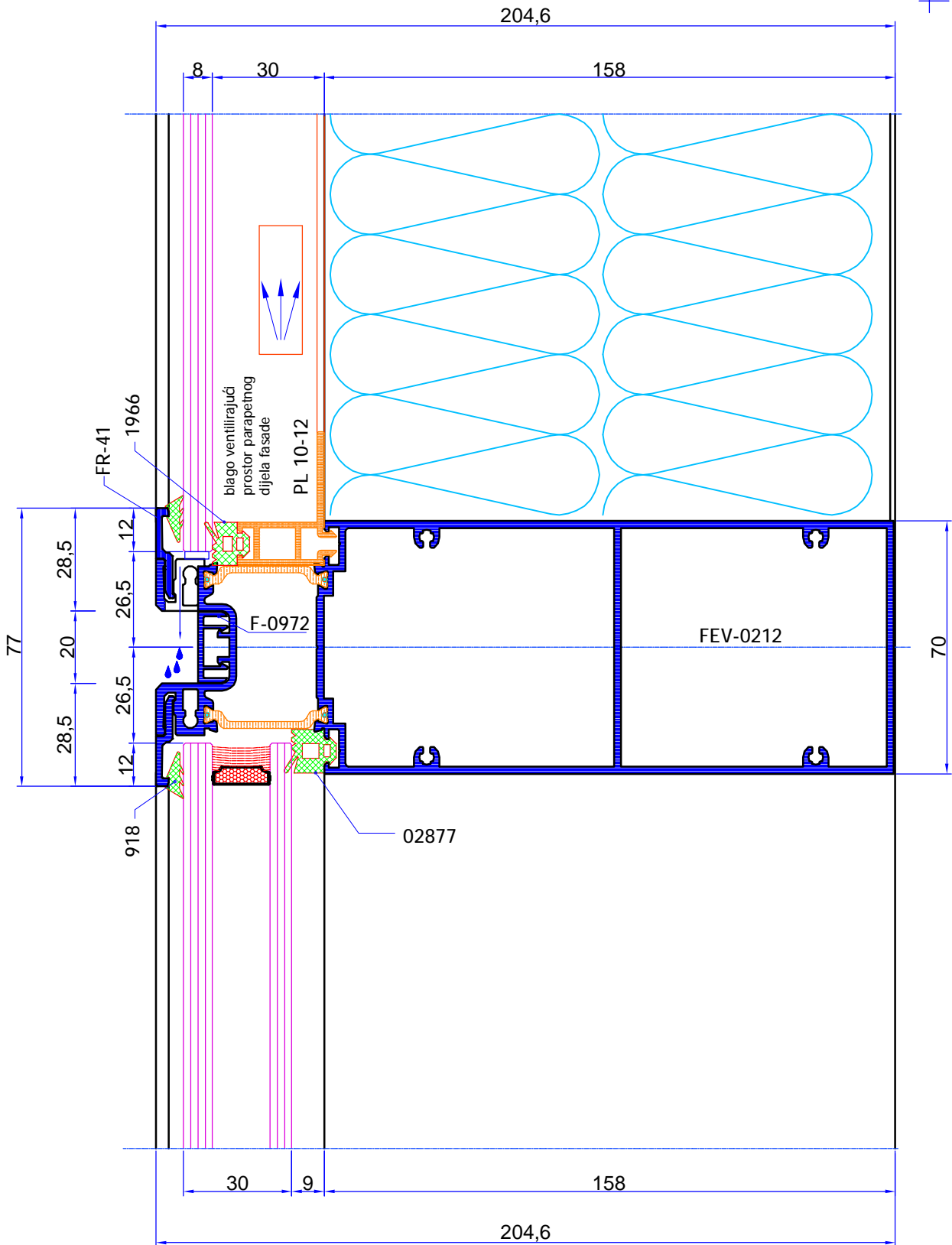
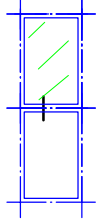
PRESJEK 21-21



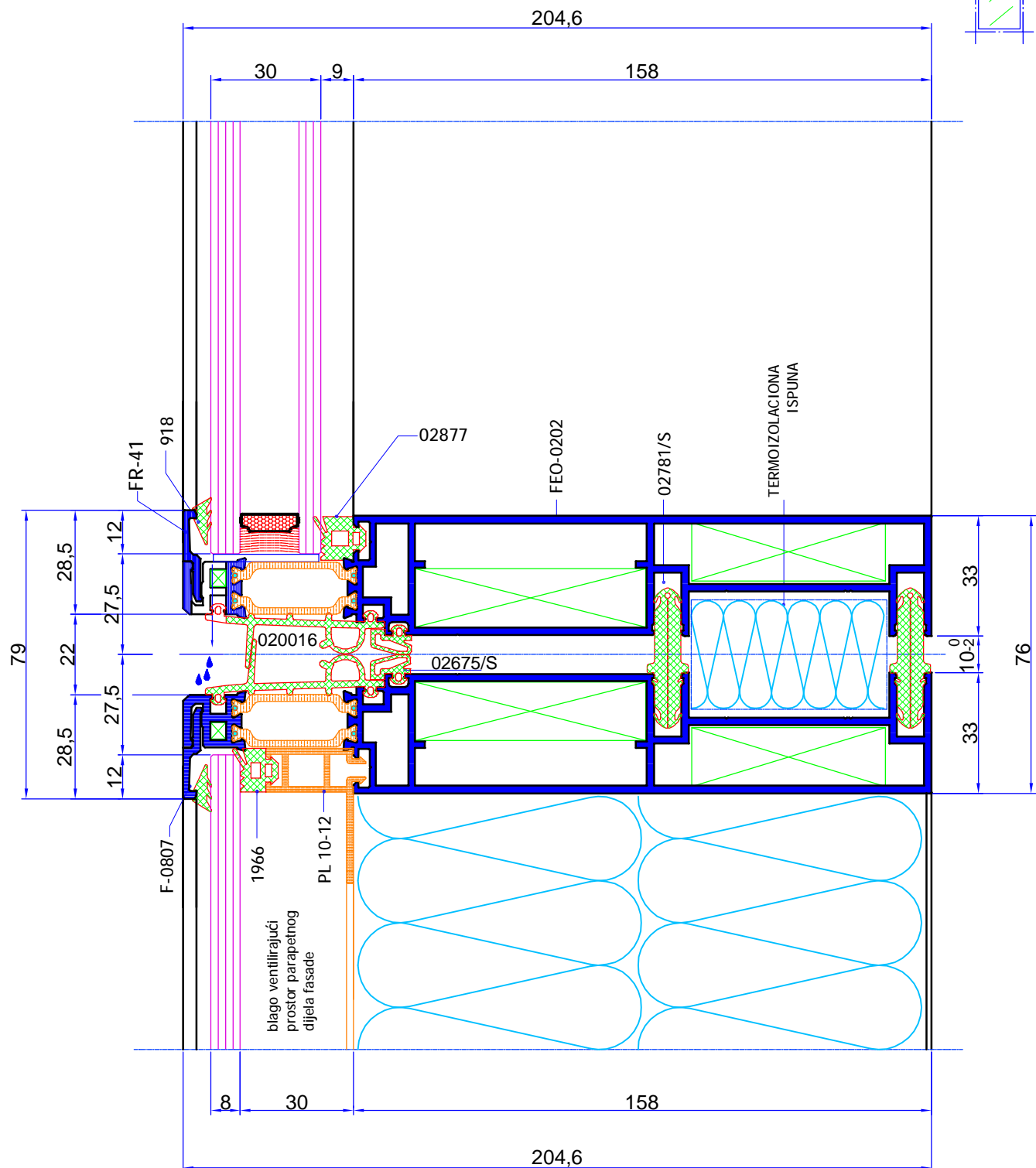
PRESJEK 22-22



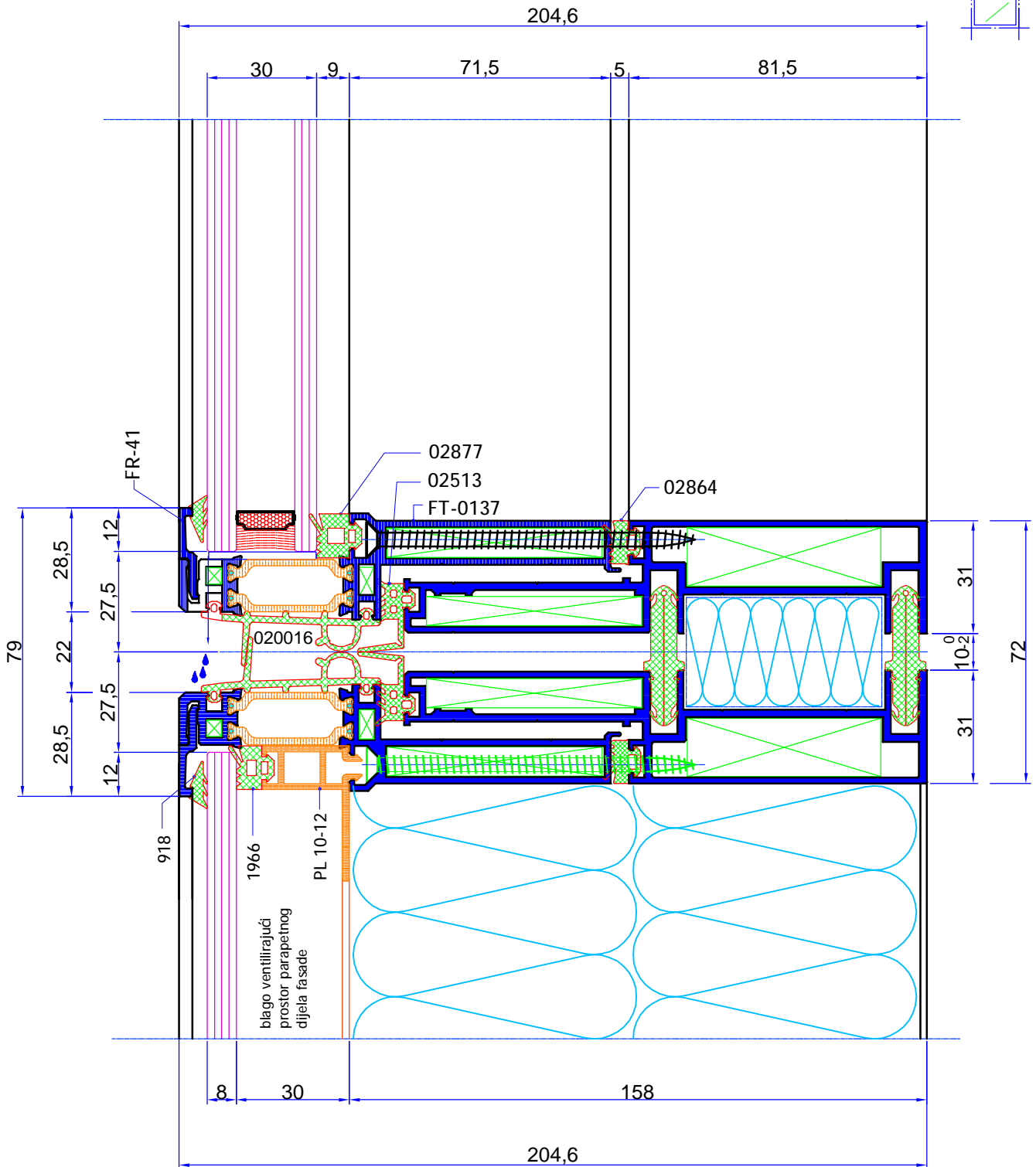
PRESJEK 25-25



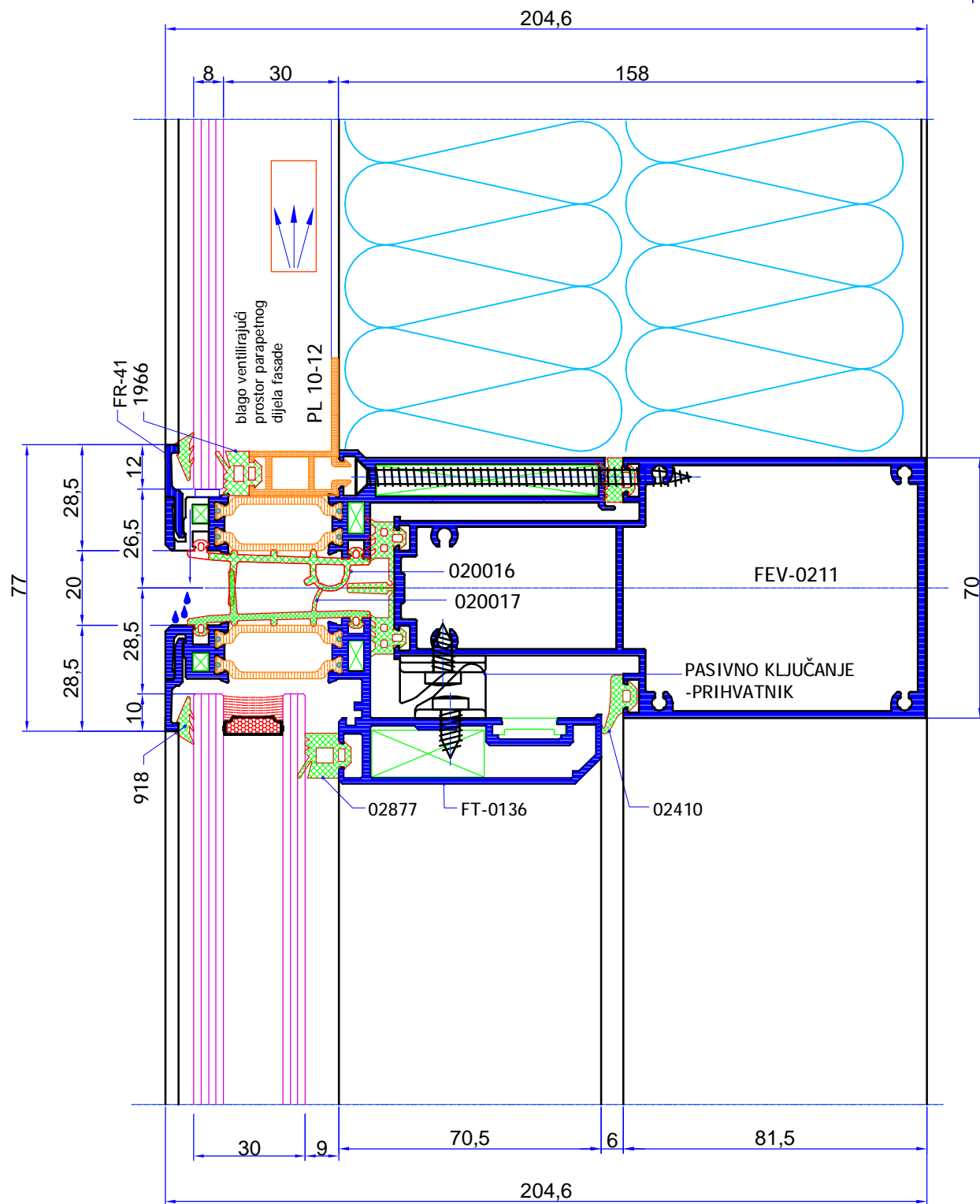
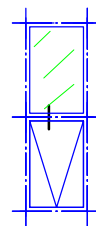
PRESJEK 26-26 i 27-27



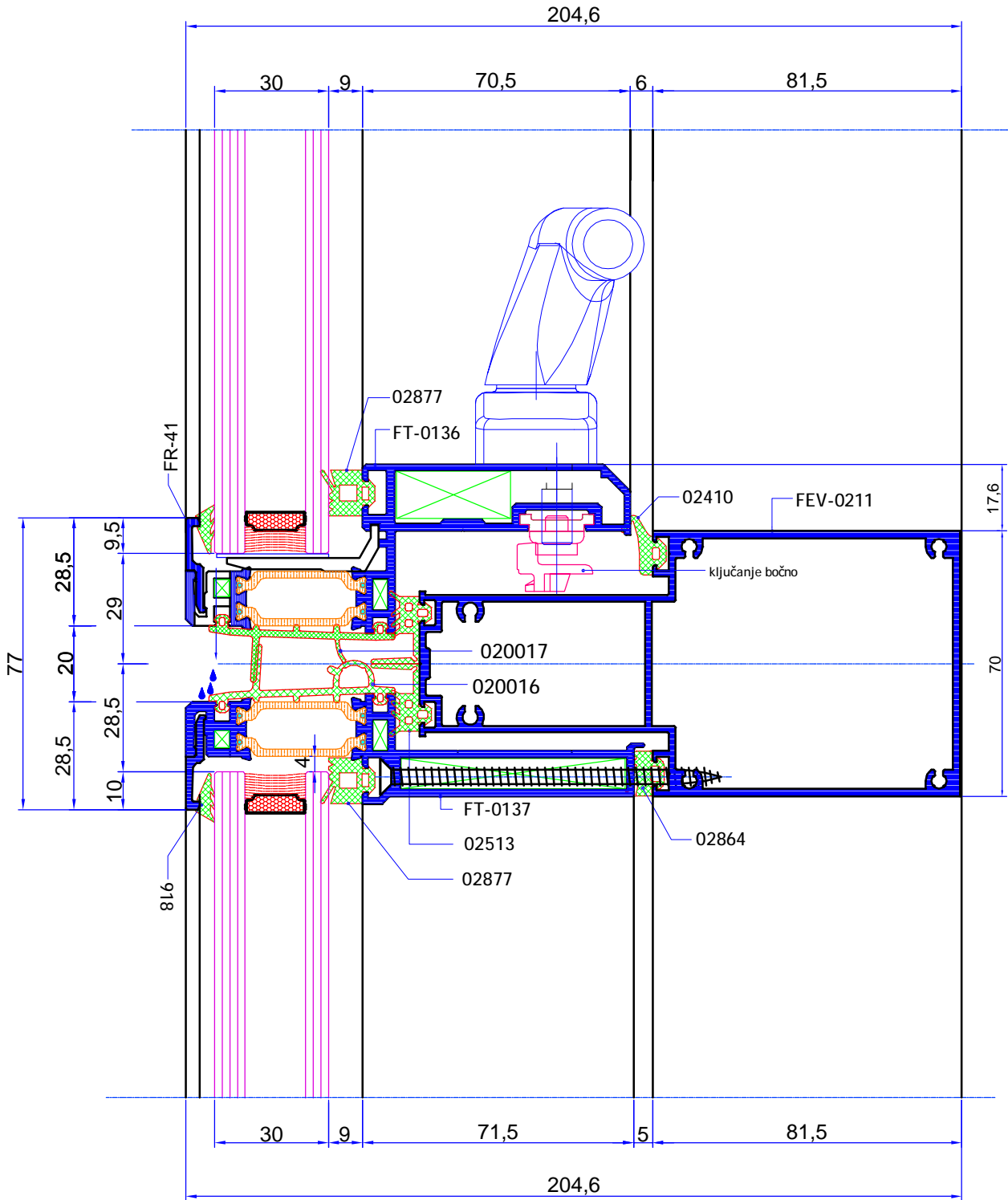
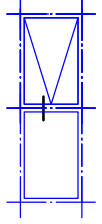
PRESJEK 28-28 i 31-31



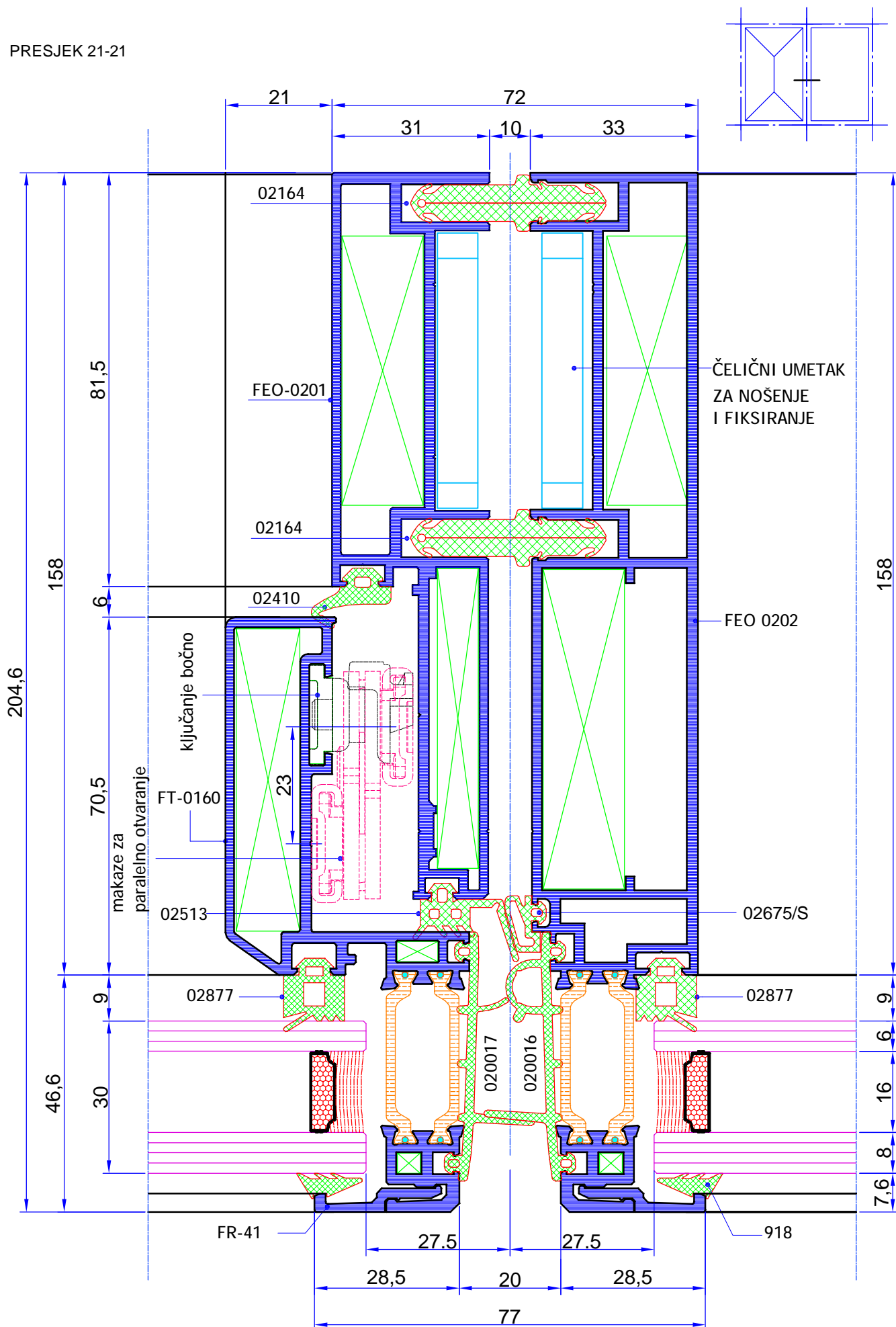
PRESJEK 29-29



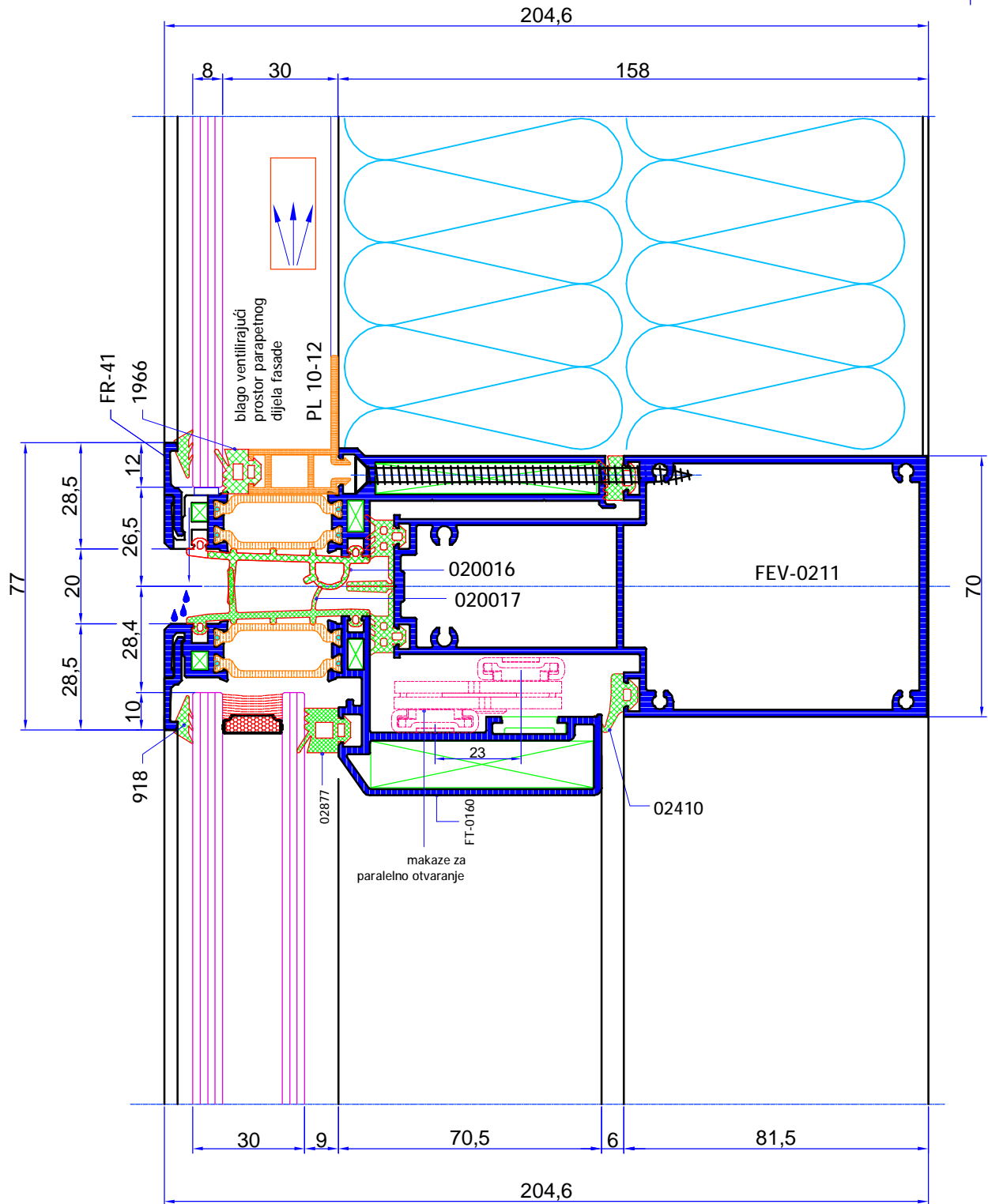
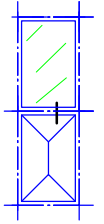
PRESJEK 30-30



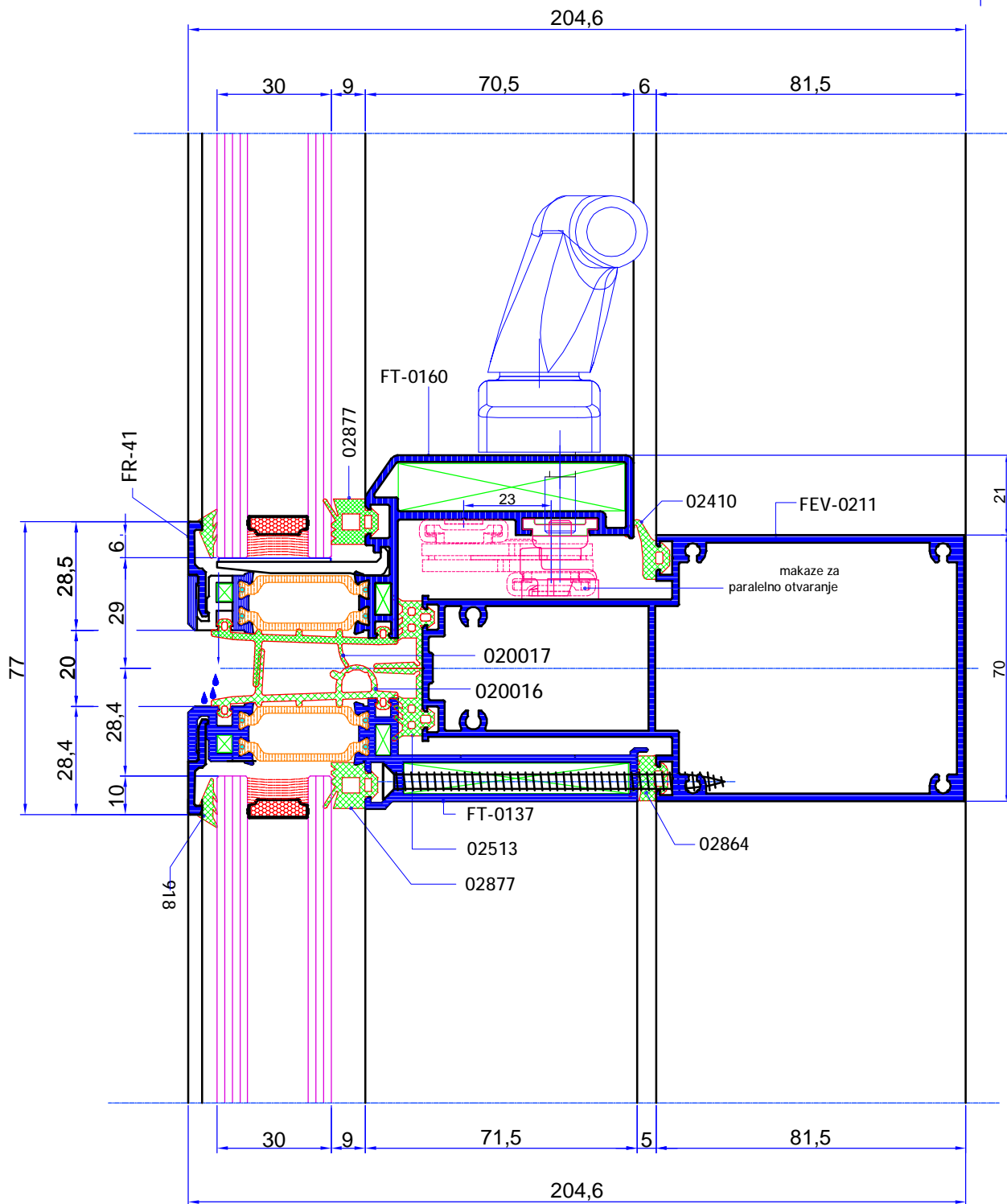
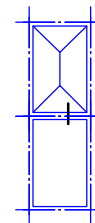
PRESJEK 21-21



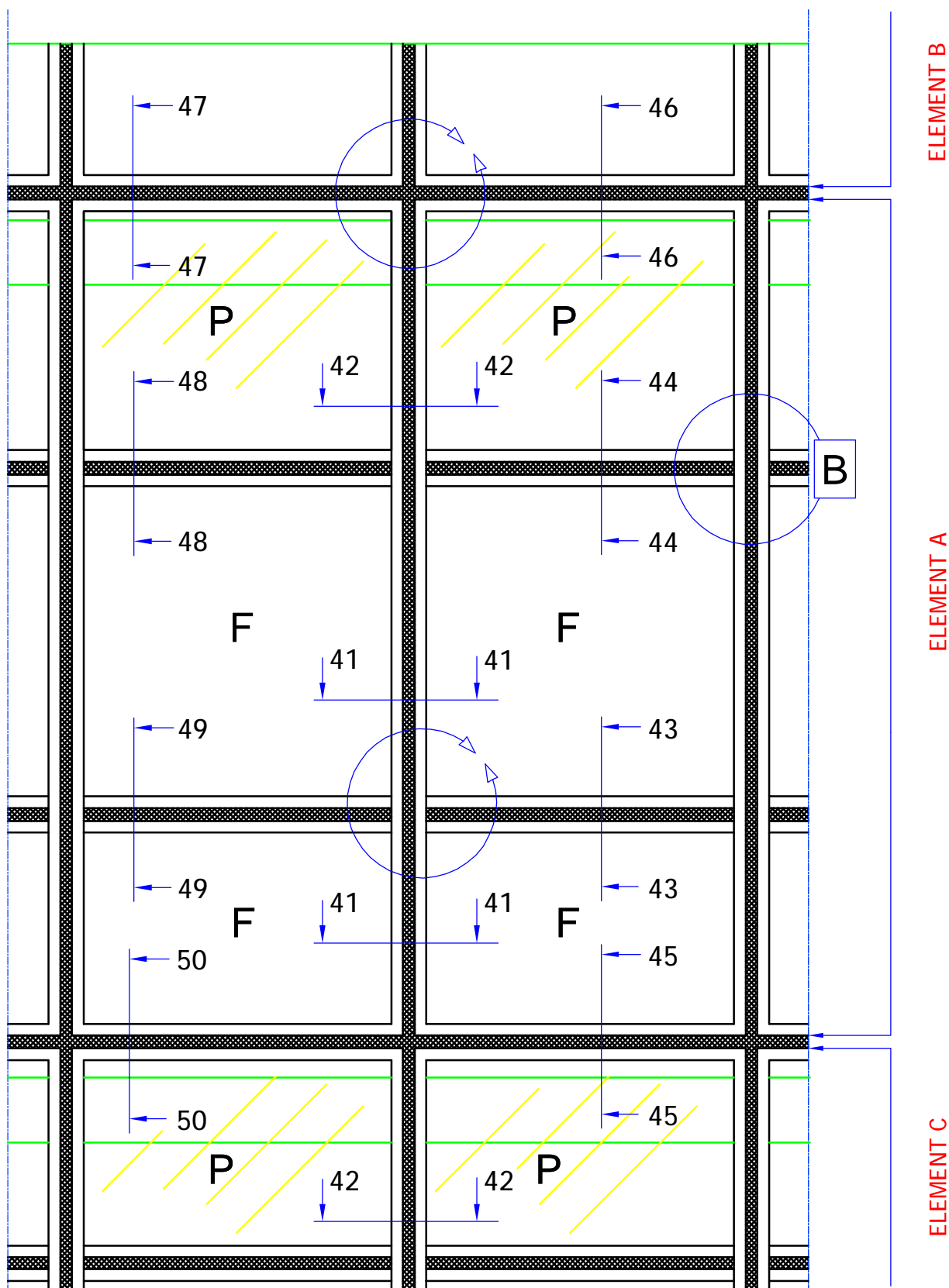
PRESJEK 29-29



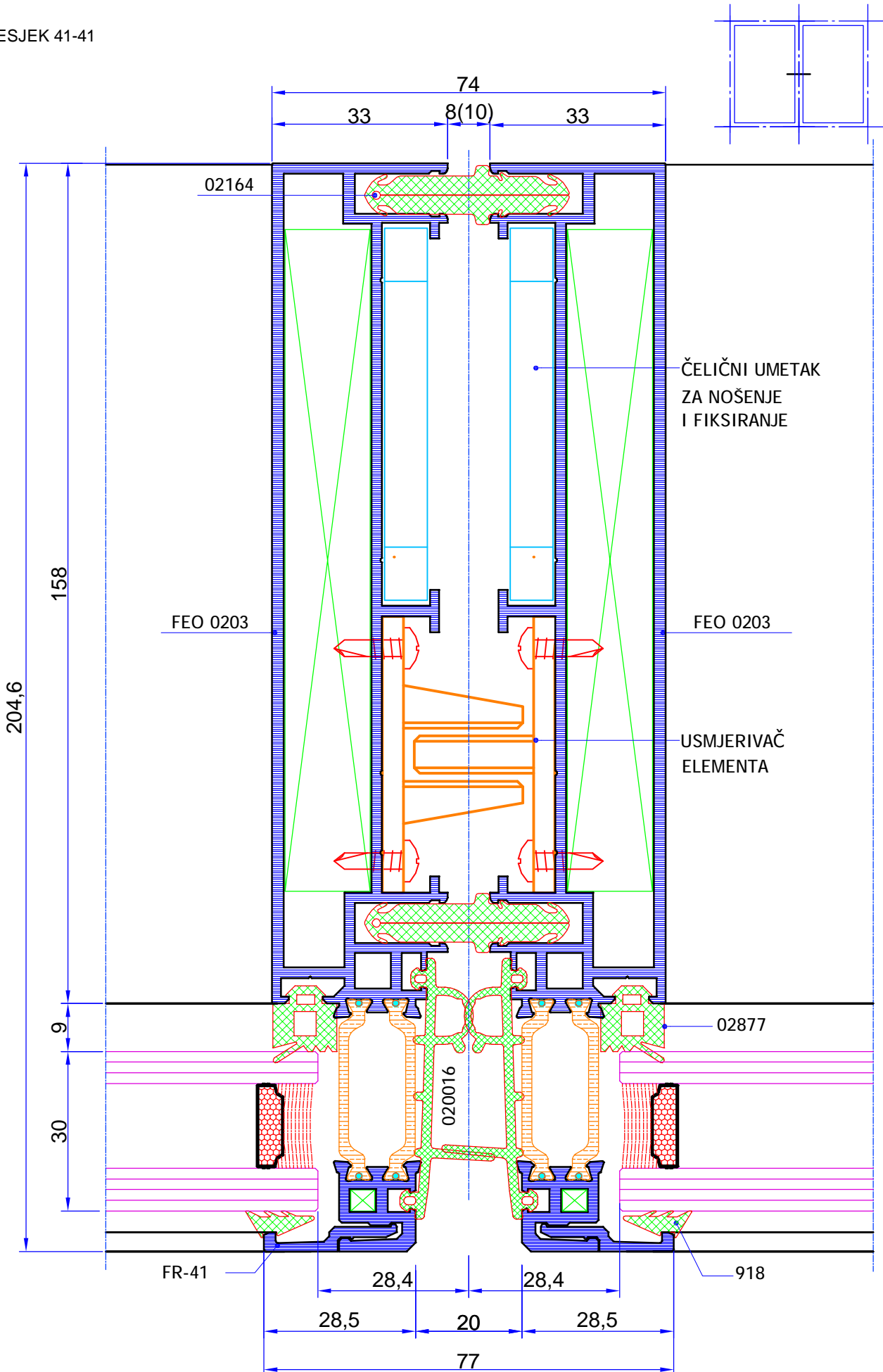
PRESJEK 30-30



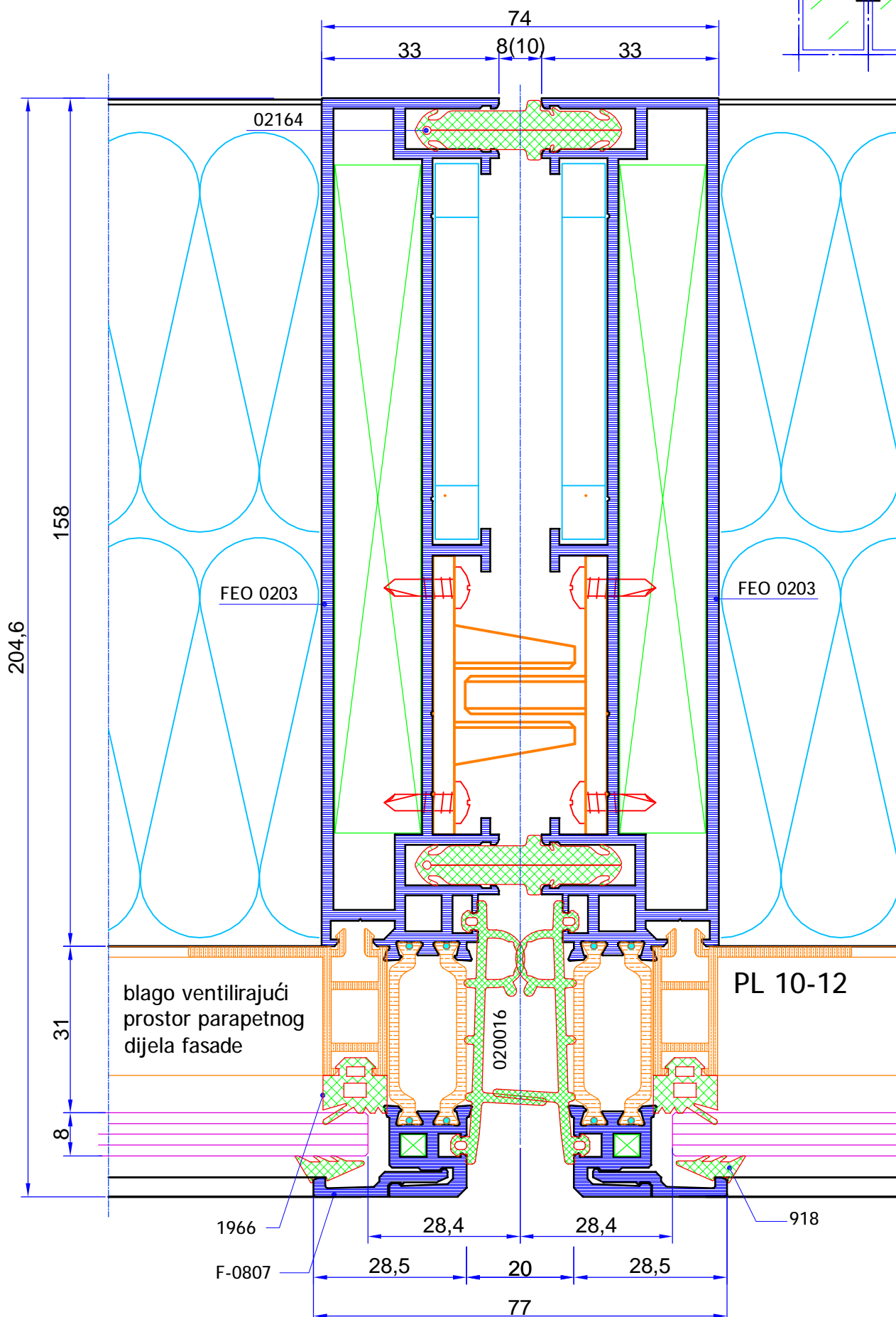
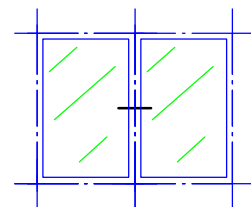
FASADA 70 E tip C (BEZ OTVARAJUĆIH)



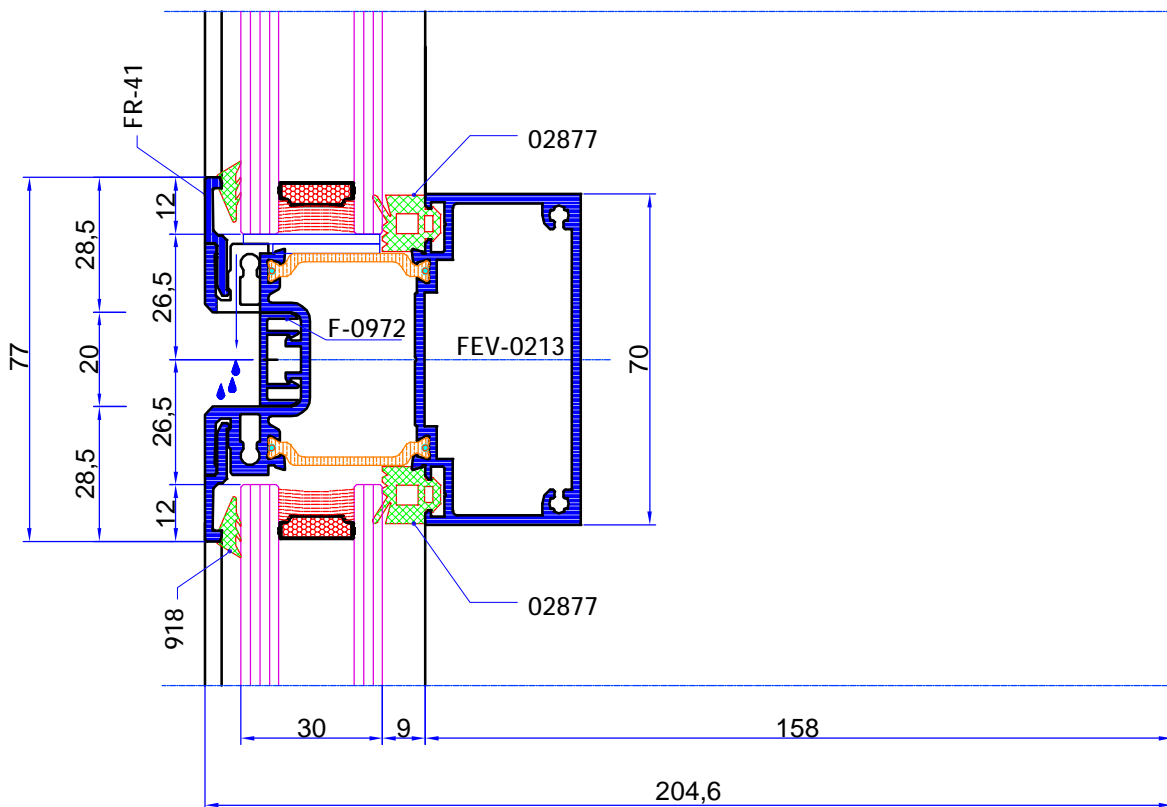
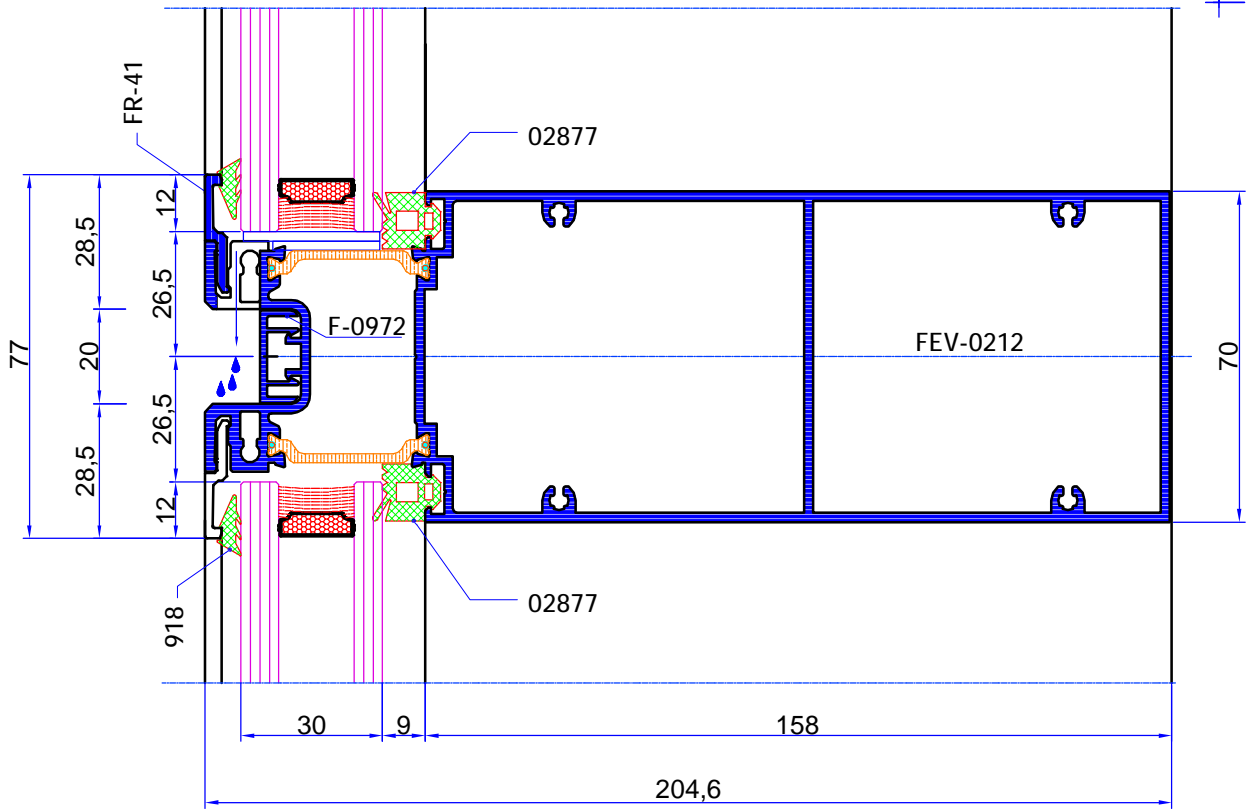
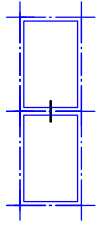
PRESJEK 41-41



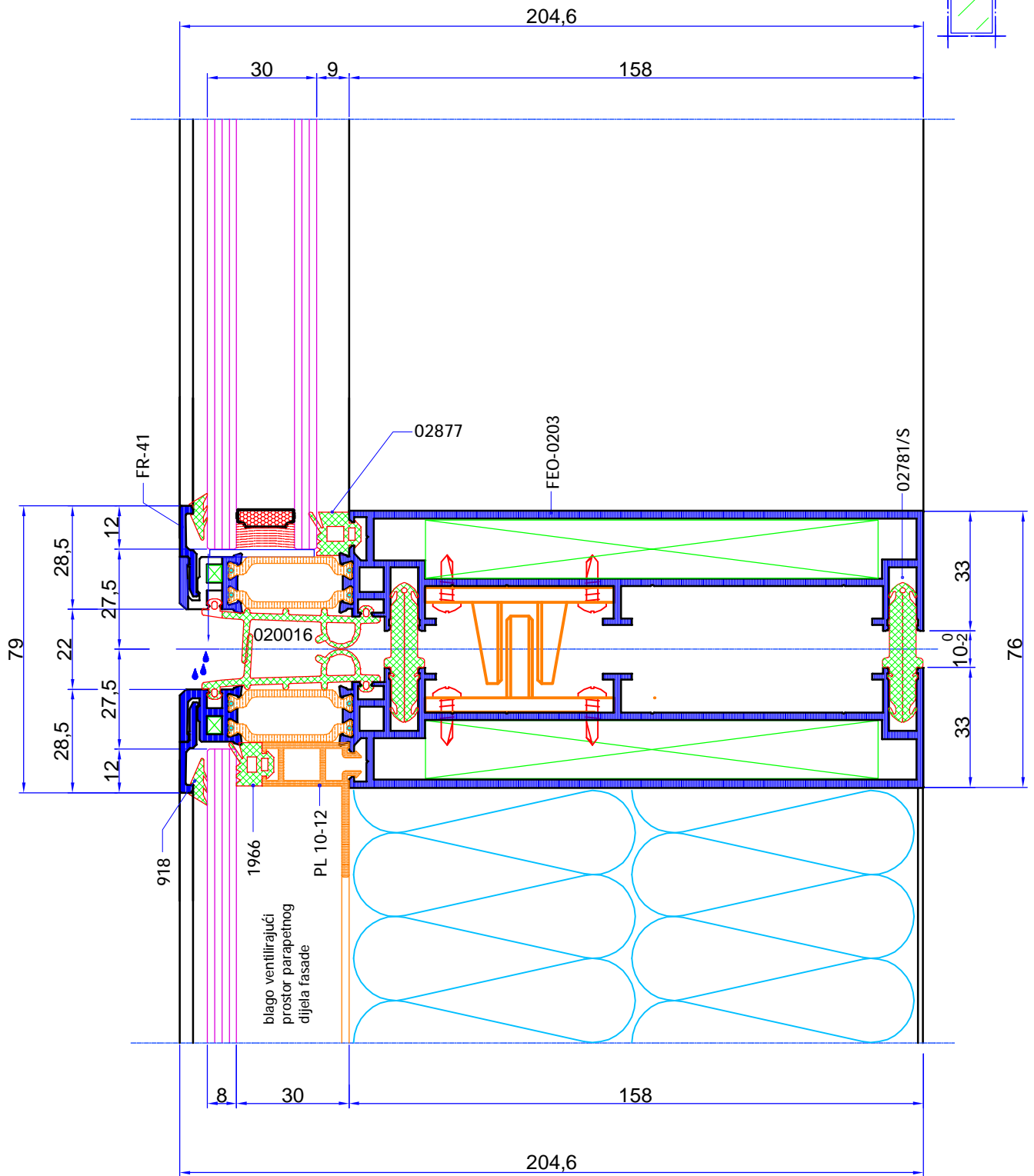
PRESJEK 42-42



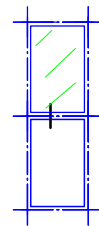
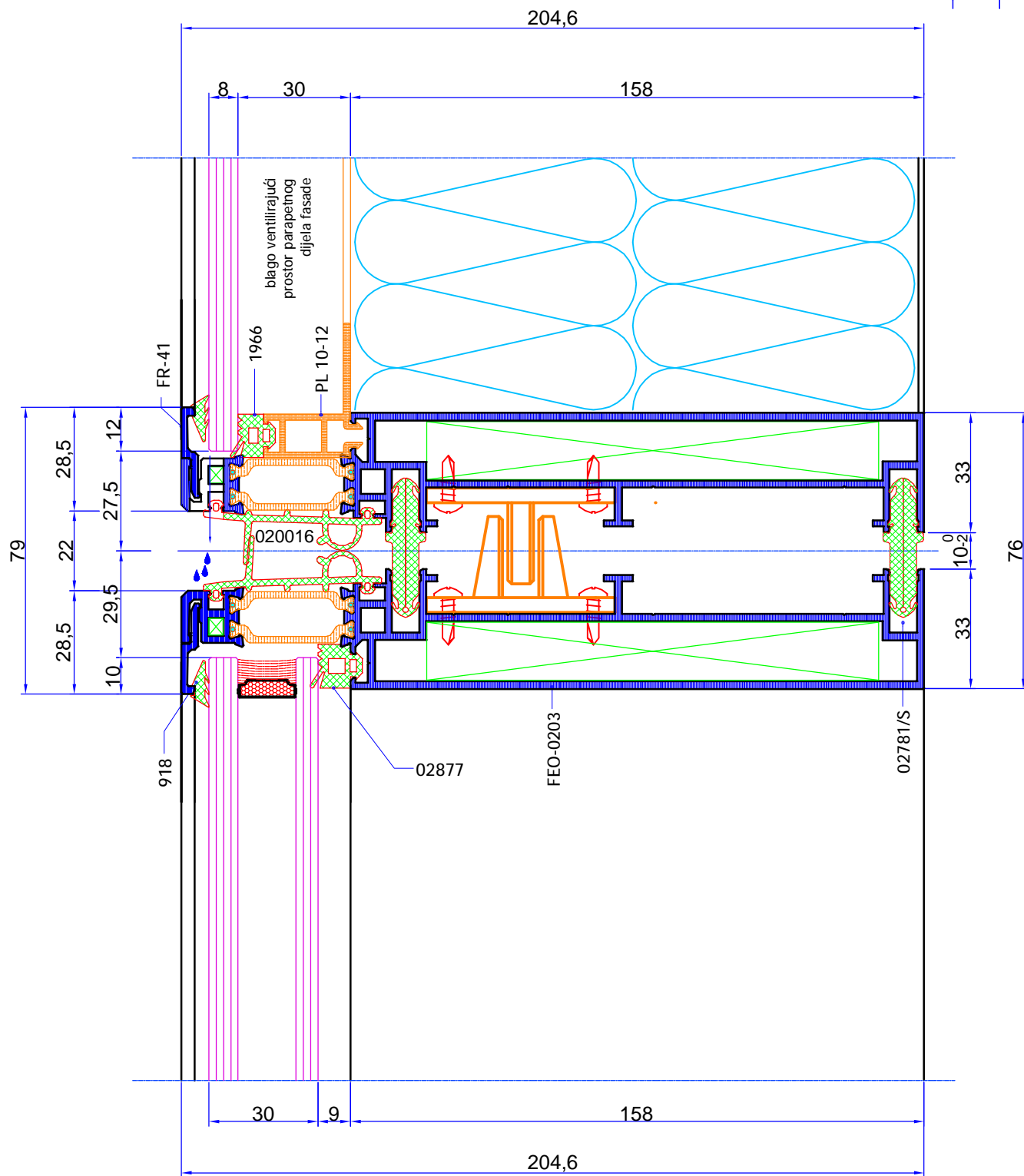
PRESJEK 43-43 i 49-49

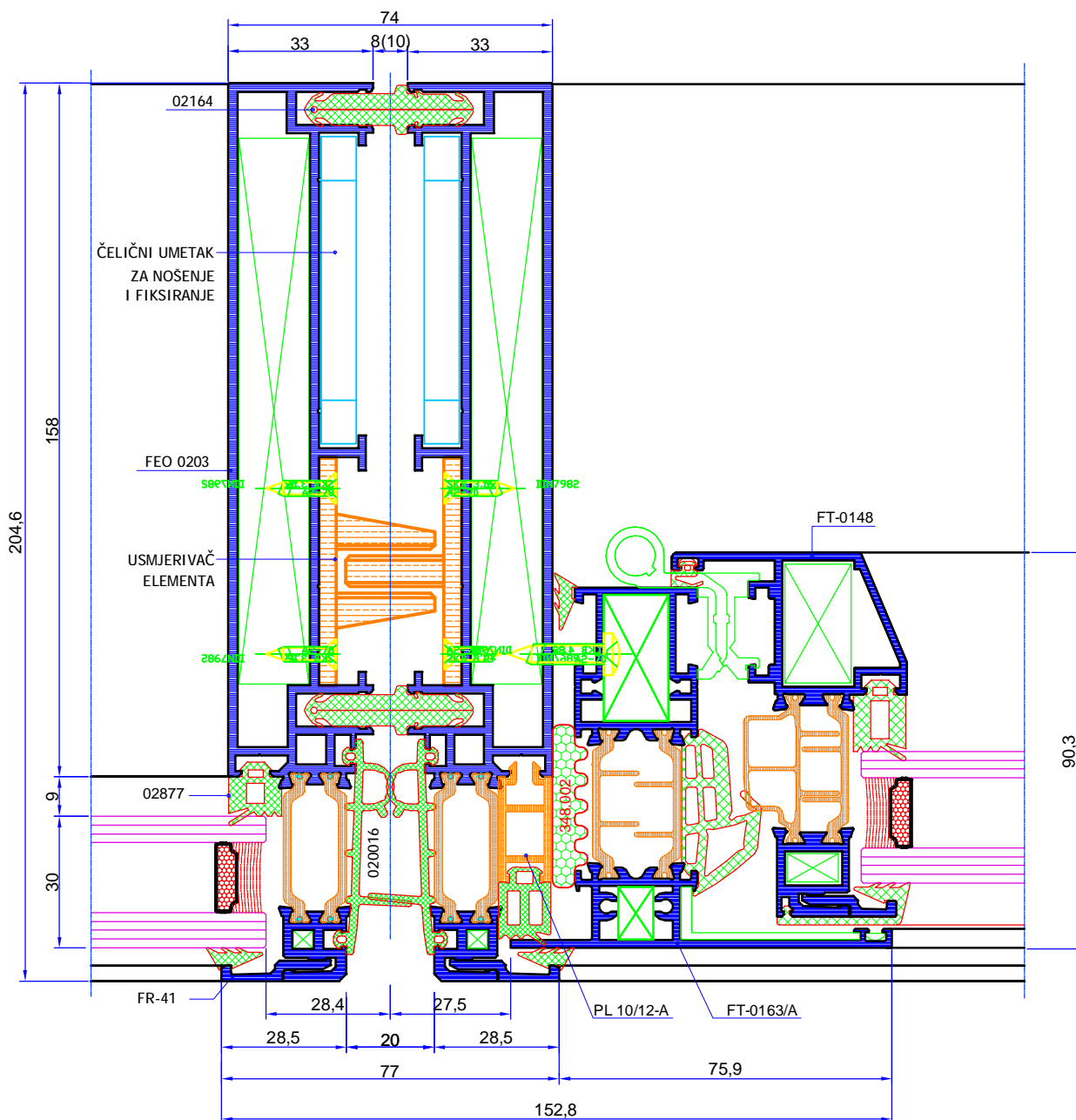
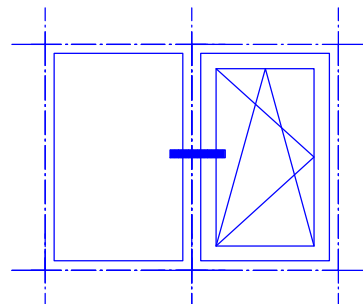


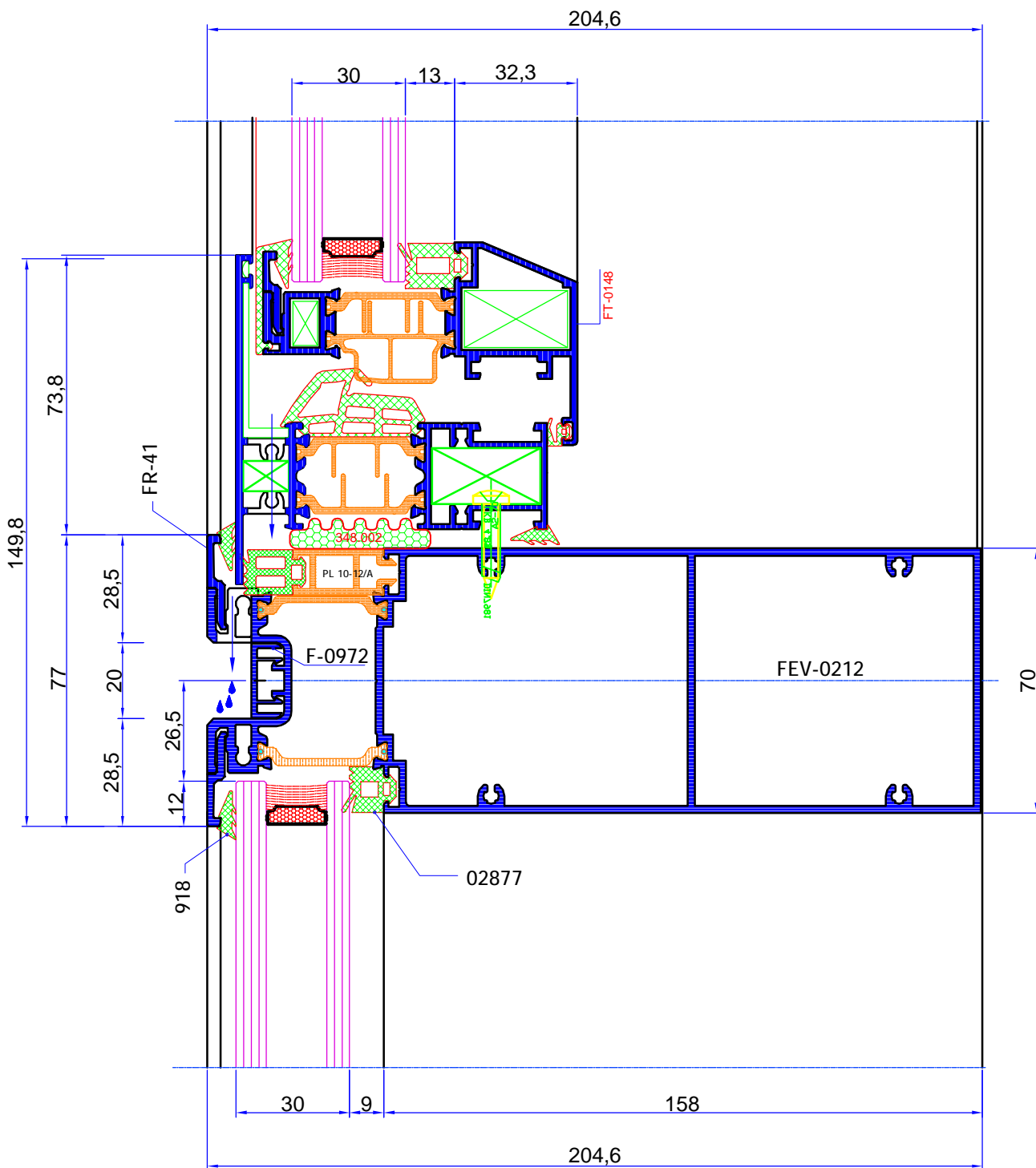
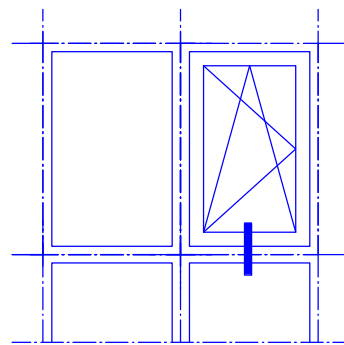
PRESJEK 45-45 i 50-50

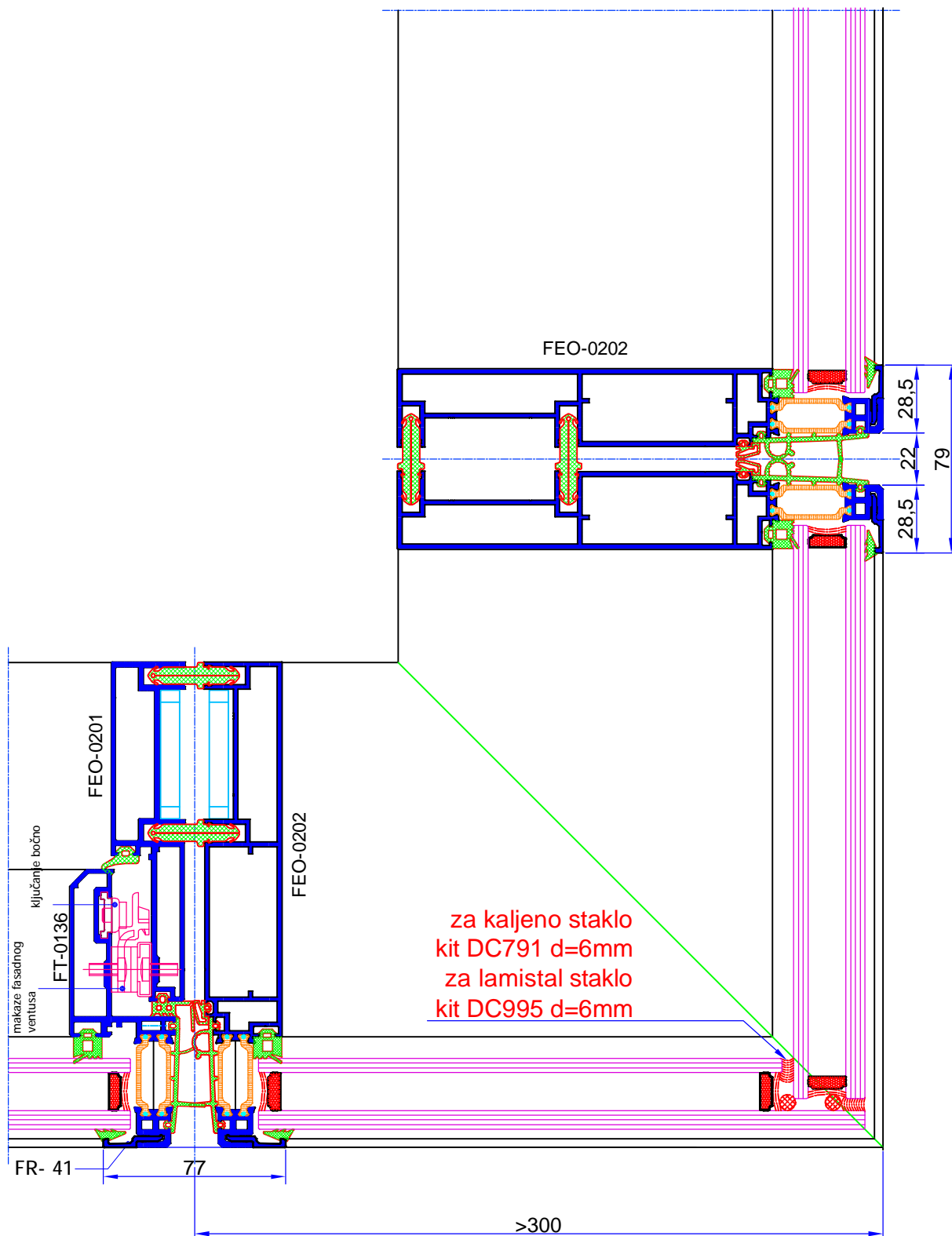


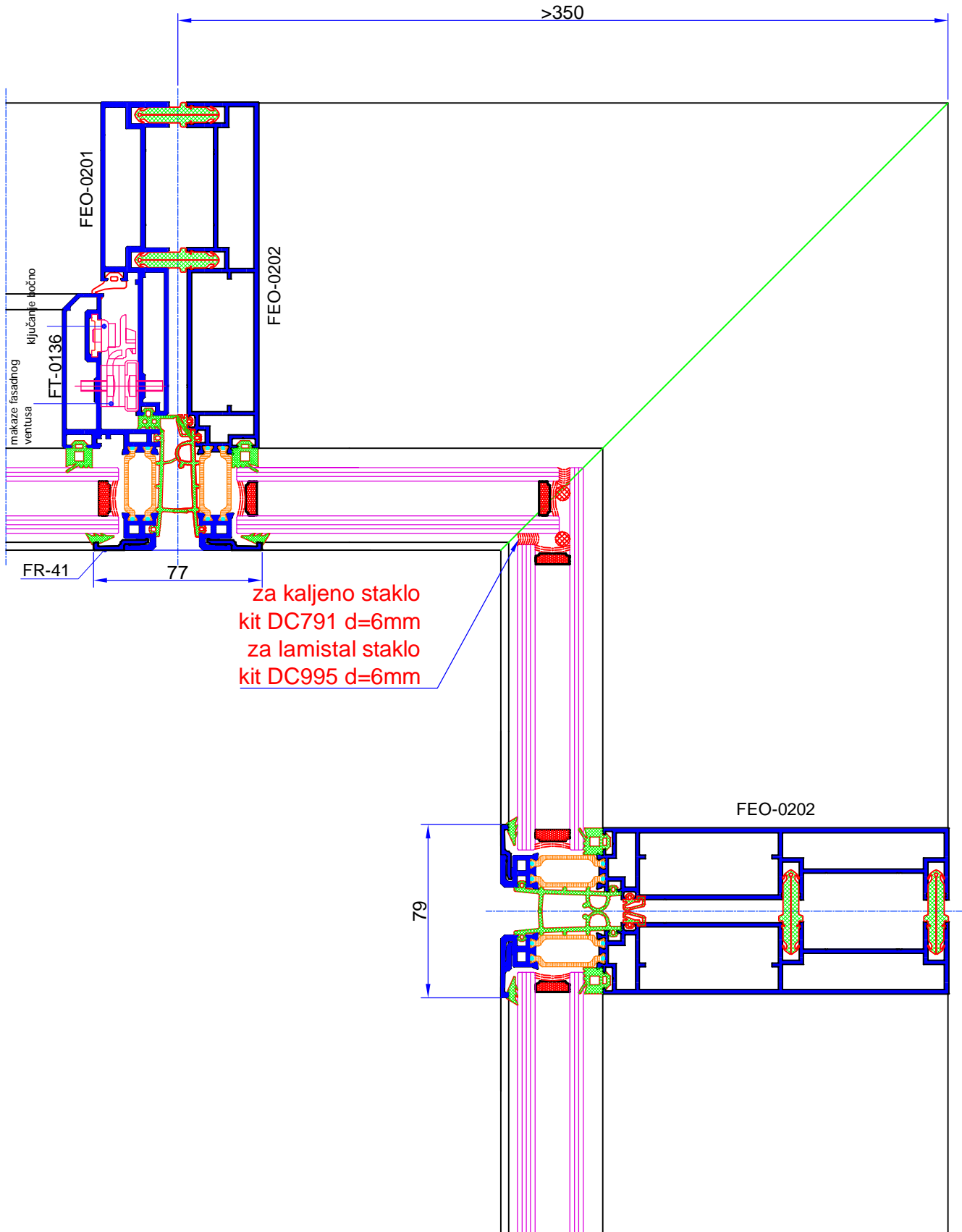
PRESJEK 46-46 i 47-47

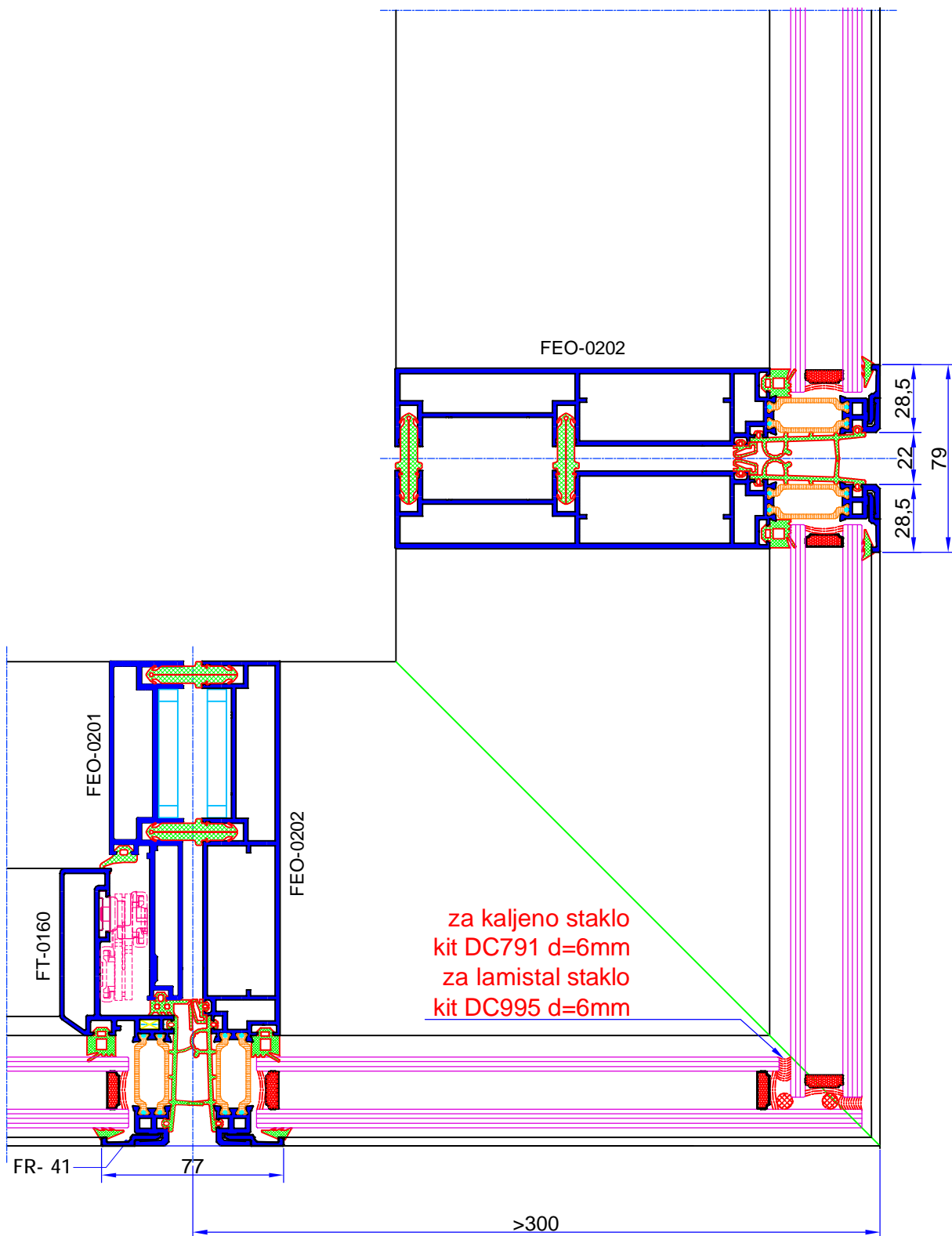


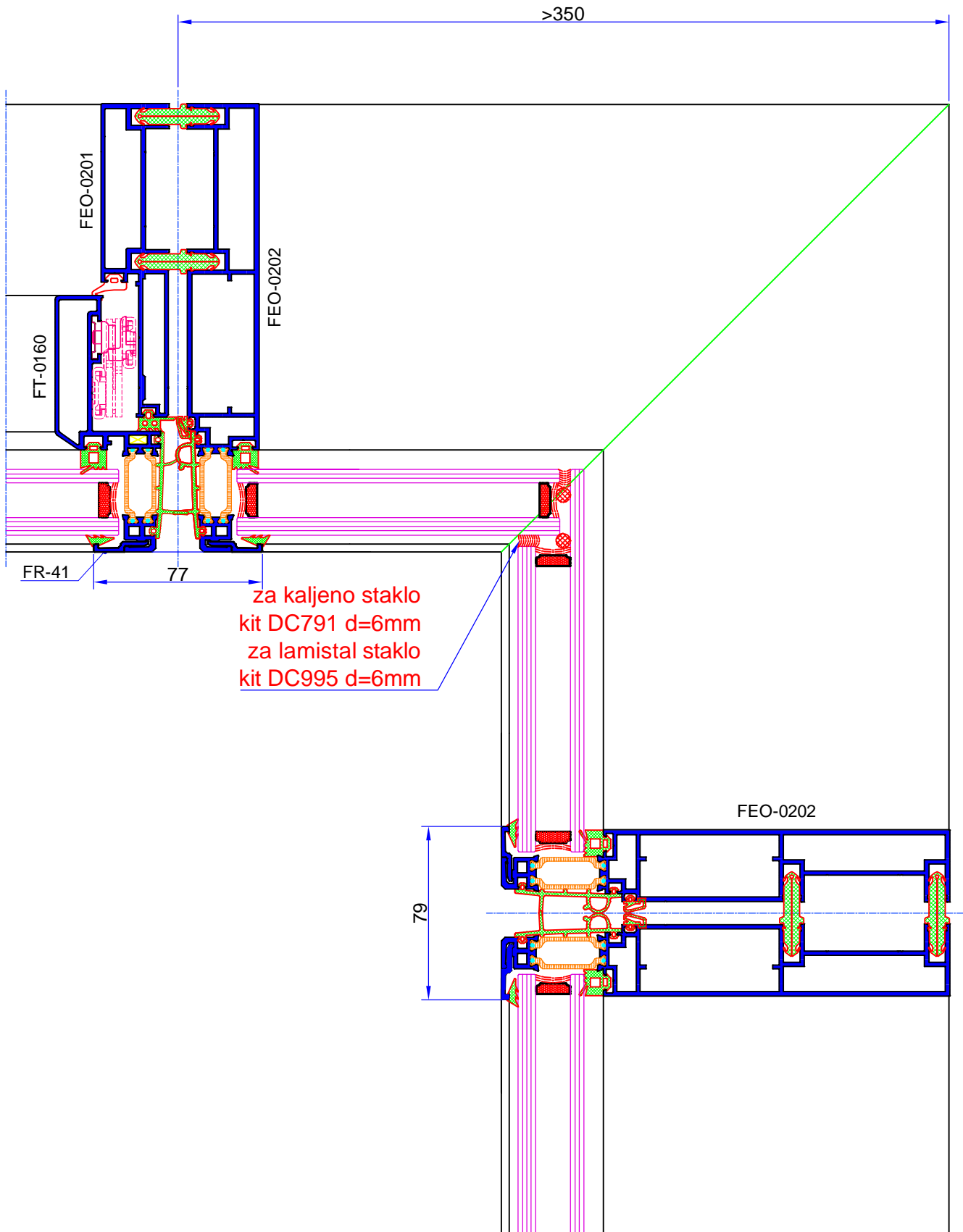




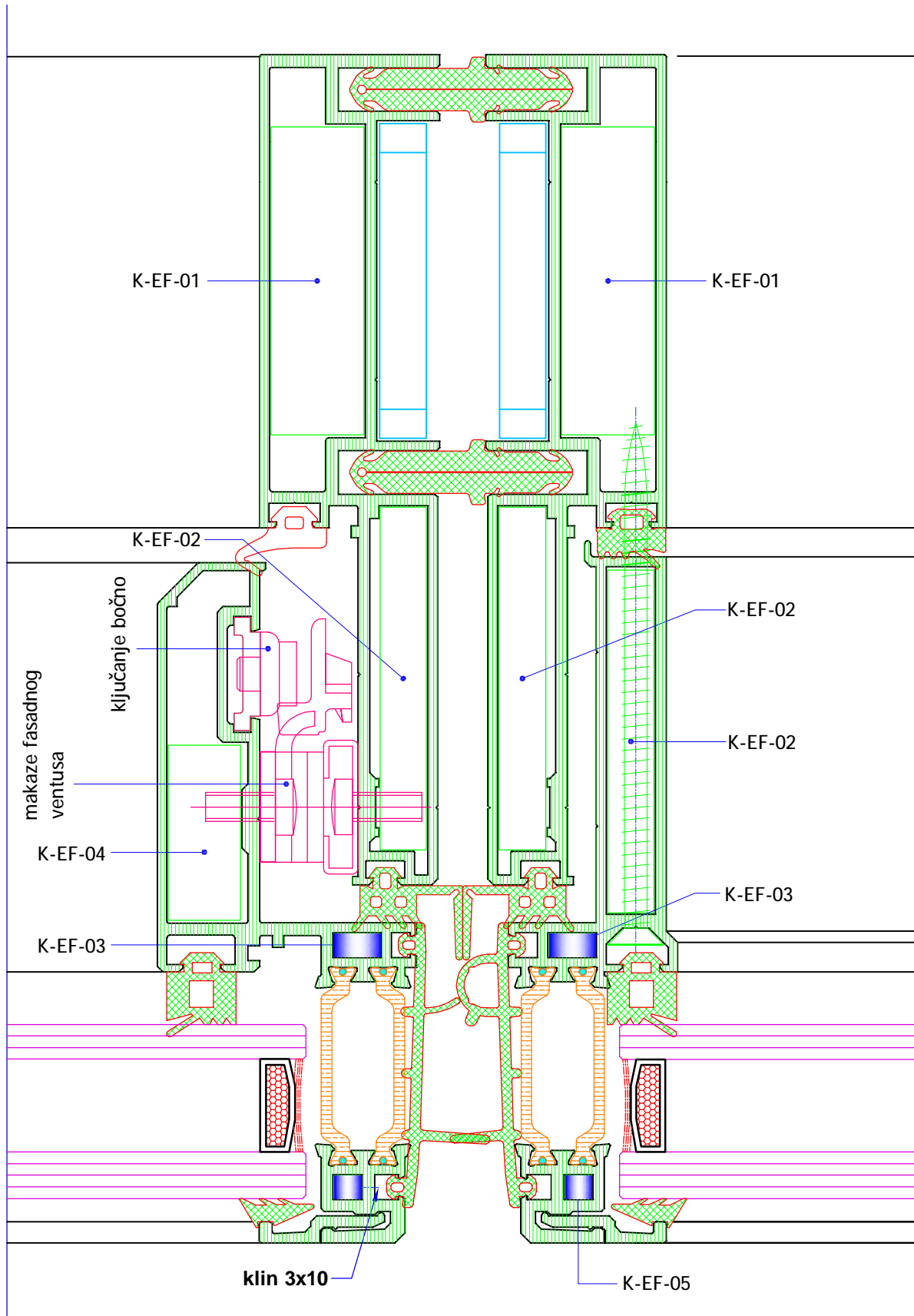




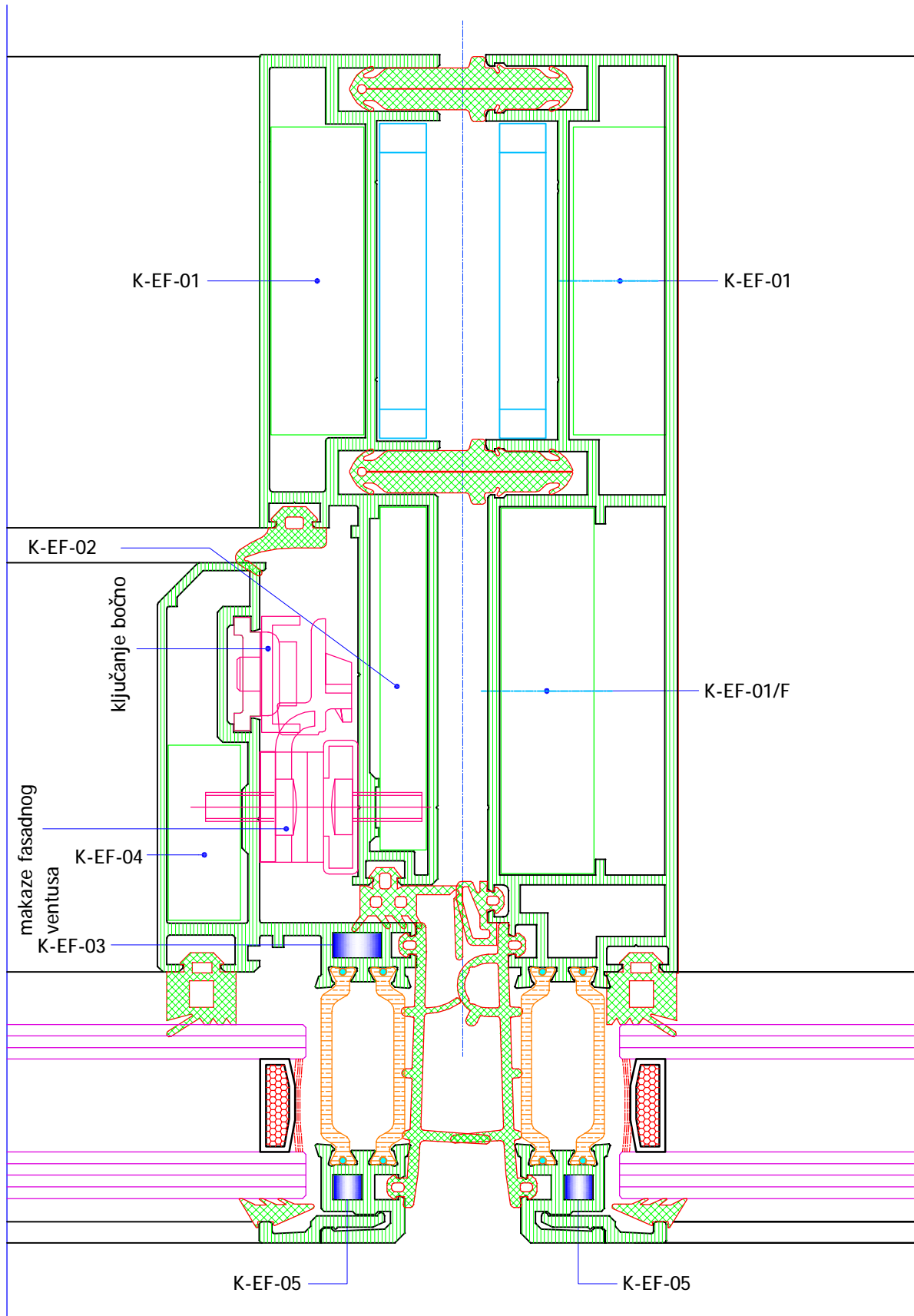




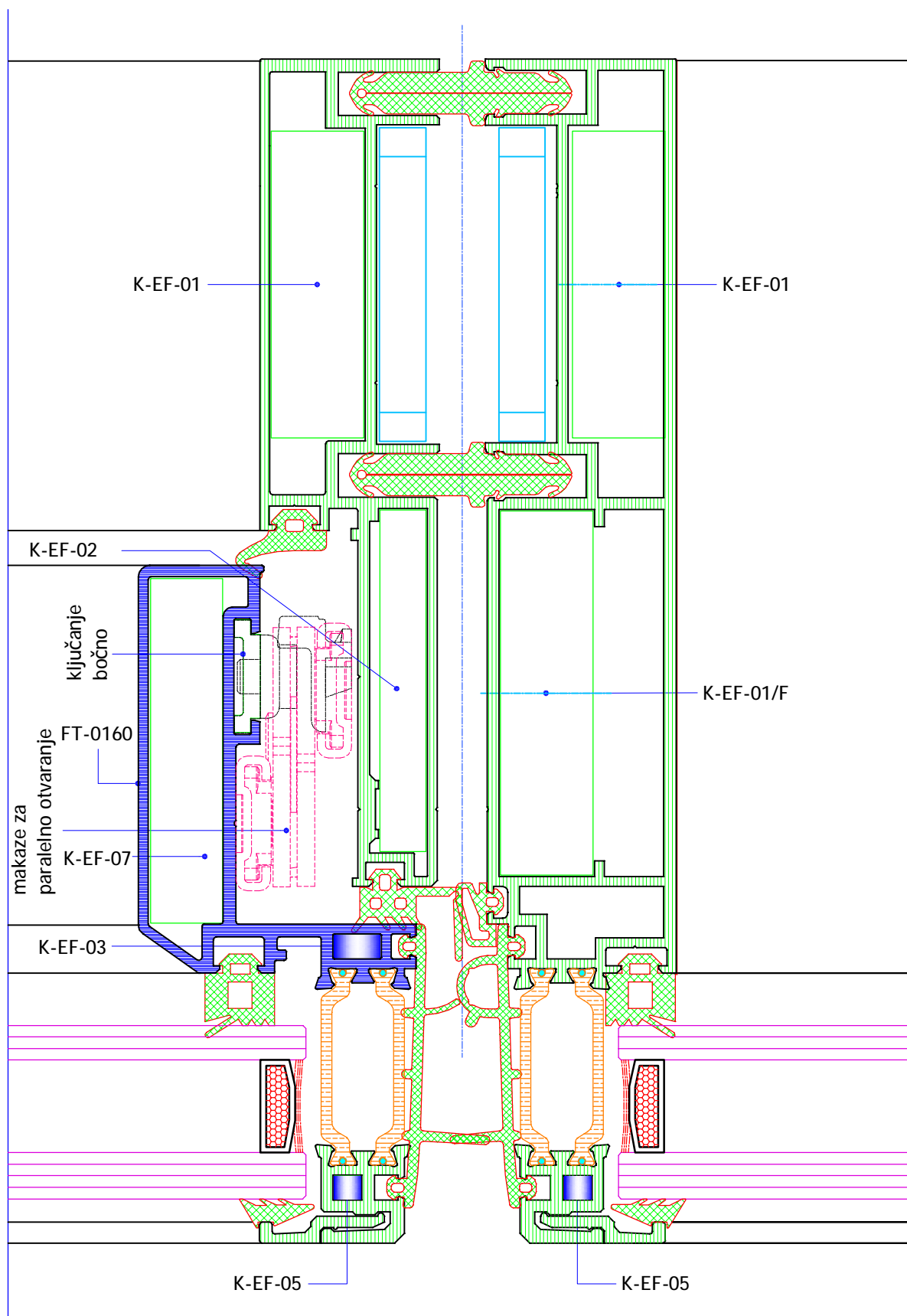
RASPORED KUTNIKA TIP "A"



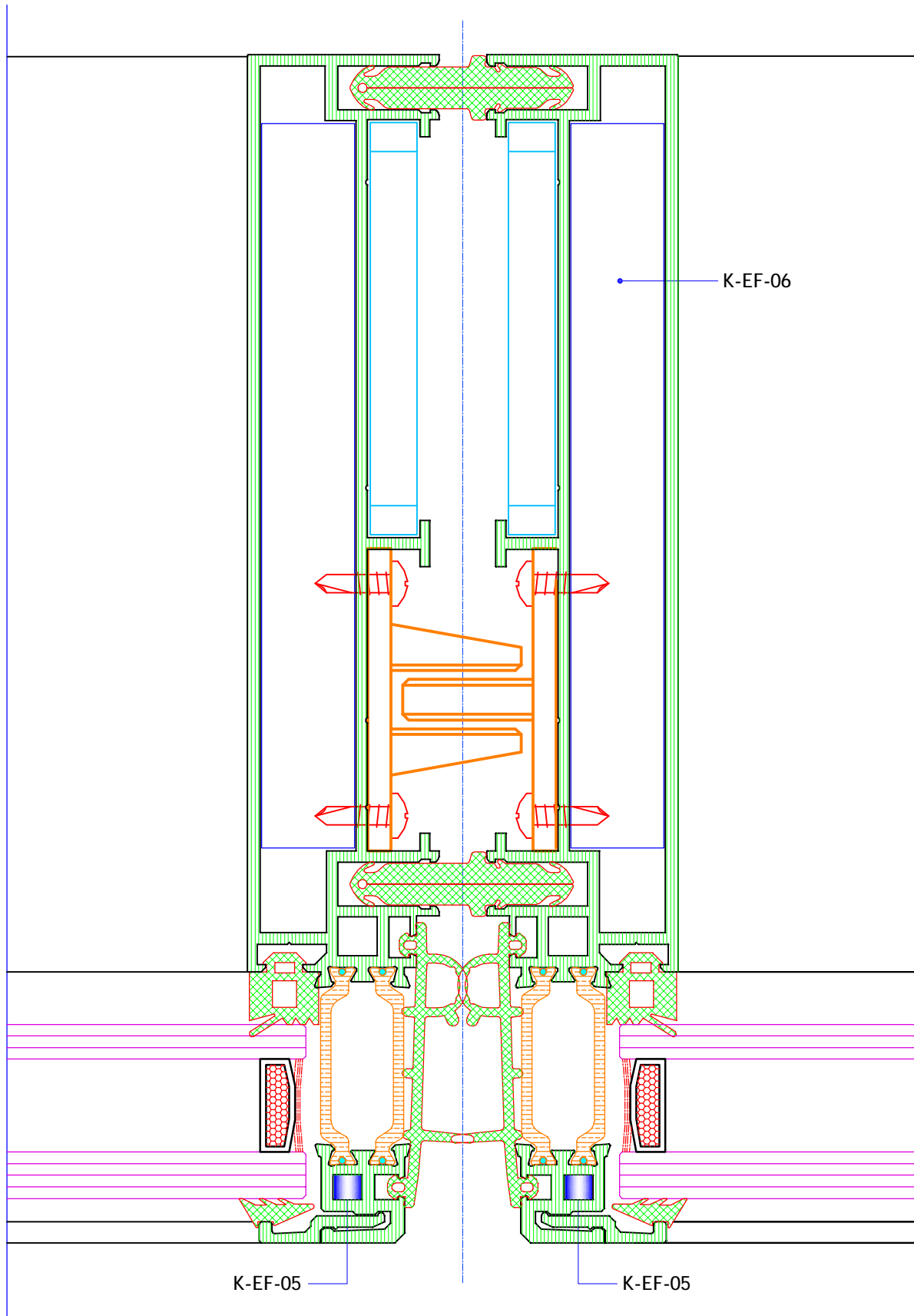
RASPORED KUTNIKA TIP "B"



RASPORED KUTNIKA TIP "B"

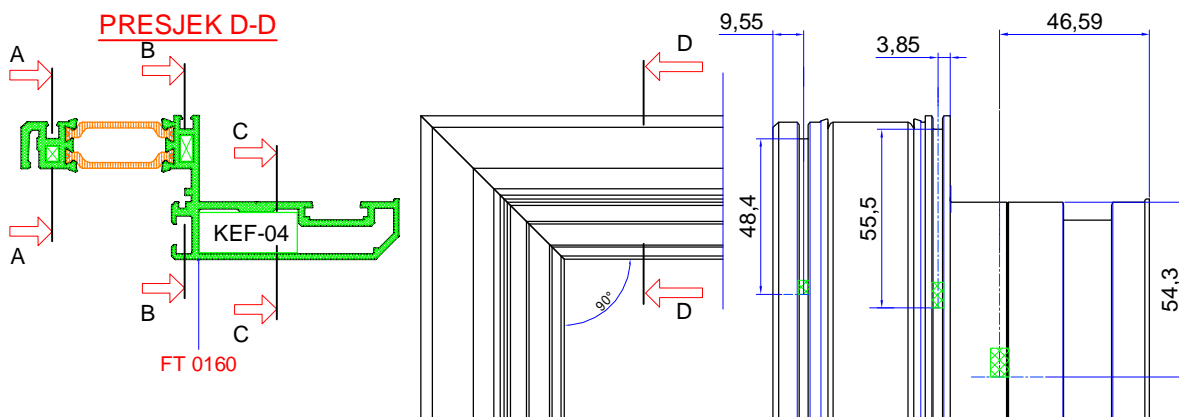


RASPORED KUTNIKA TIP "C"

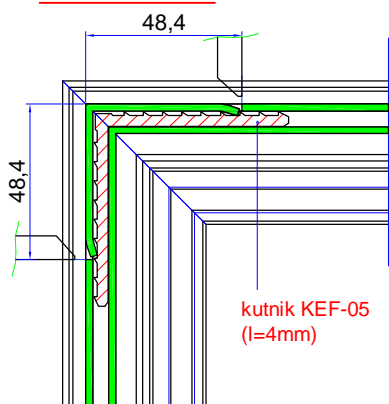


- UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU

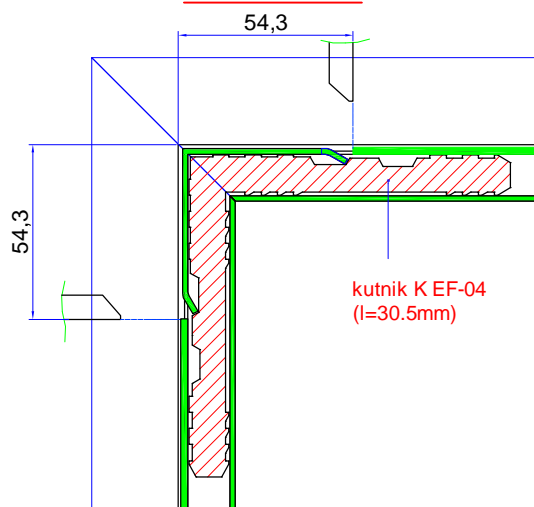
PRESJEK D-D



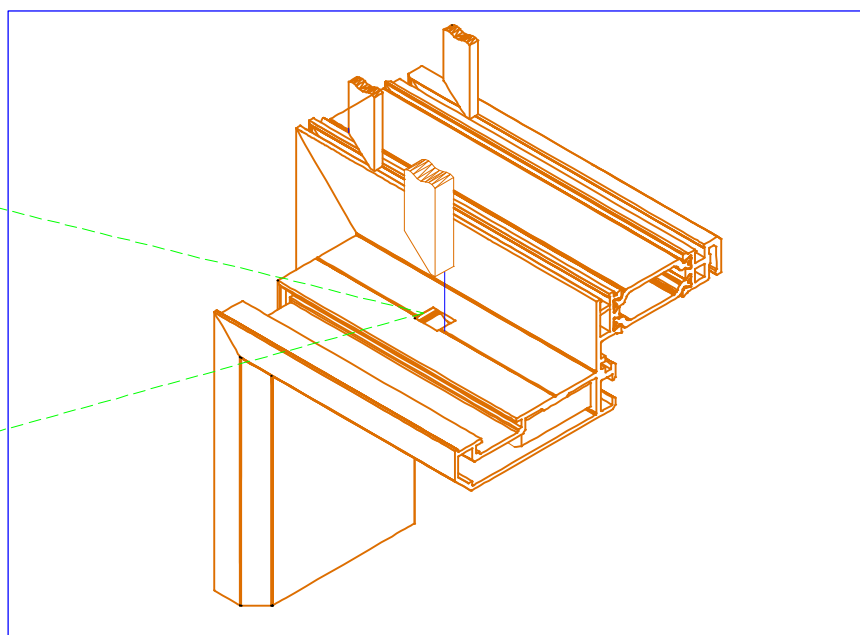
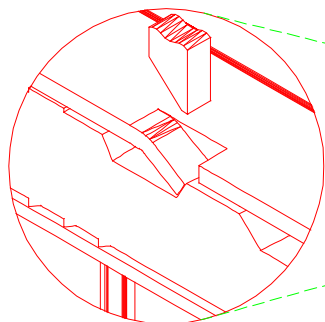
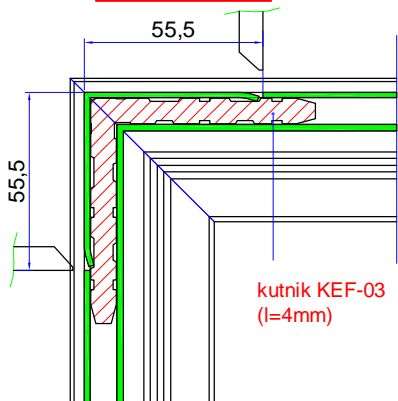
PRESJEK A-A



PRESJEK C-C



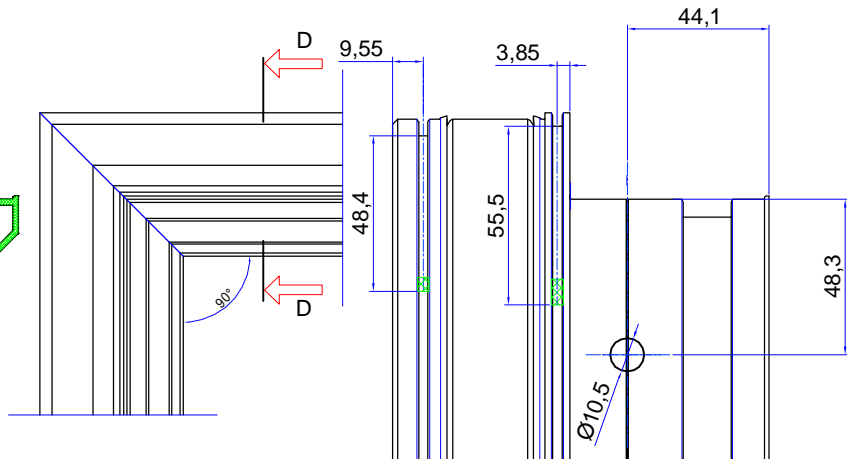
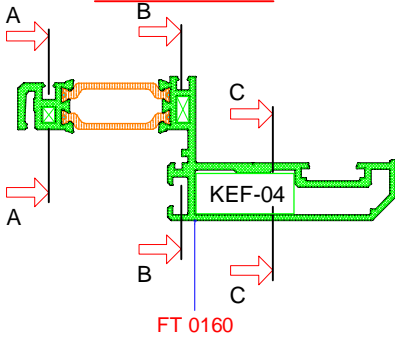
PRESJEK B-B



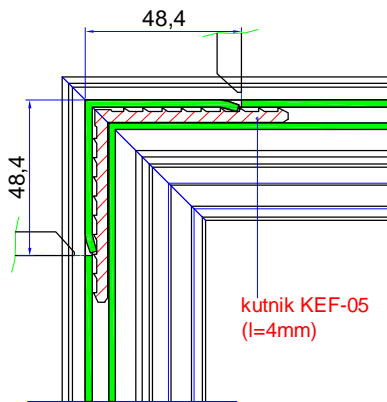
1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

-RASTAVLJIVI SPOJEVI (VIJČANA VEZA)

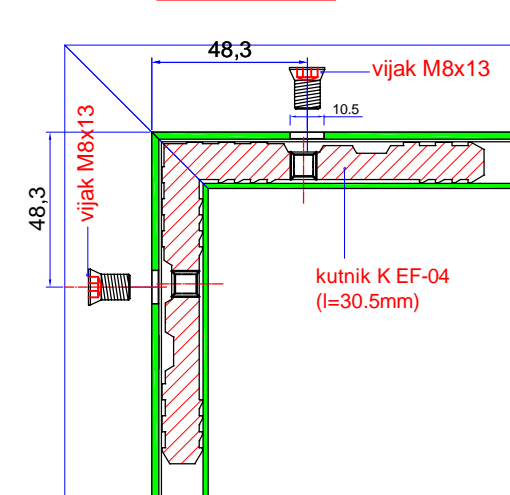
PRESJEK D-D



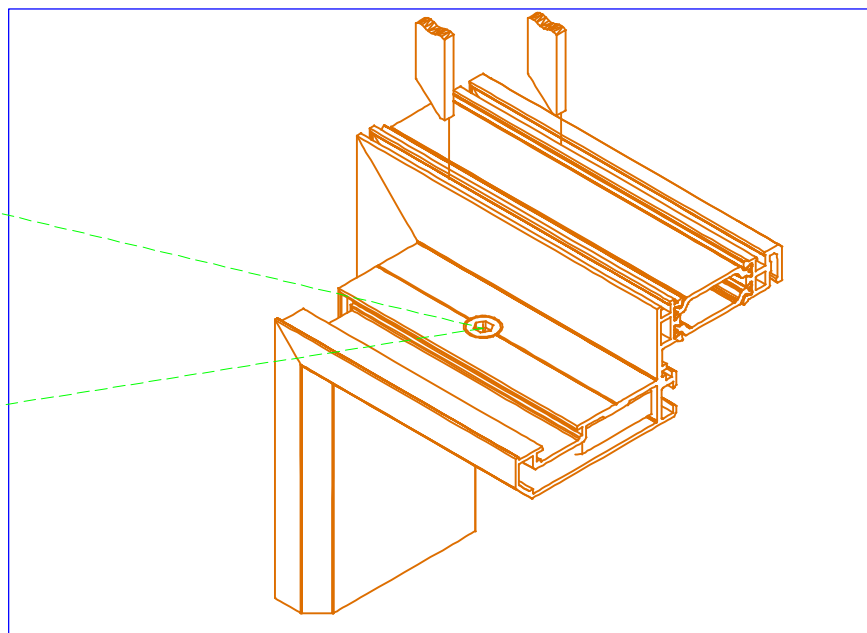
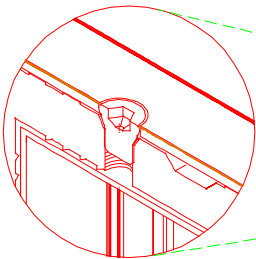
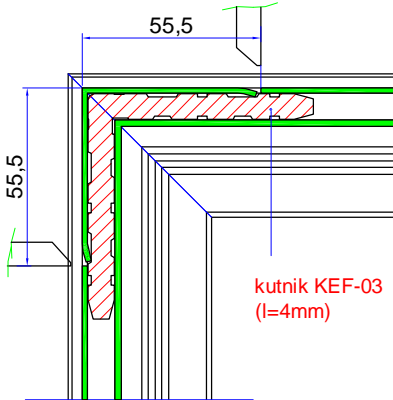
PRESJEK A-A



PRESJEK C-C



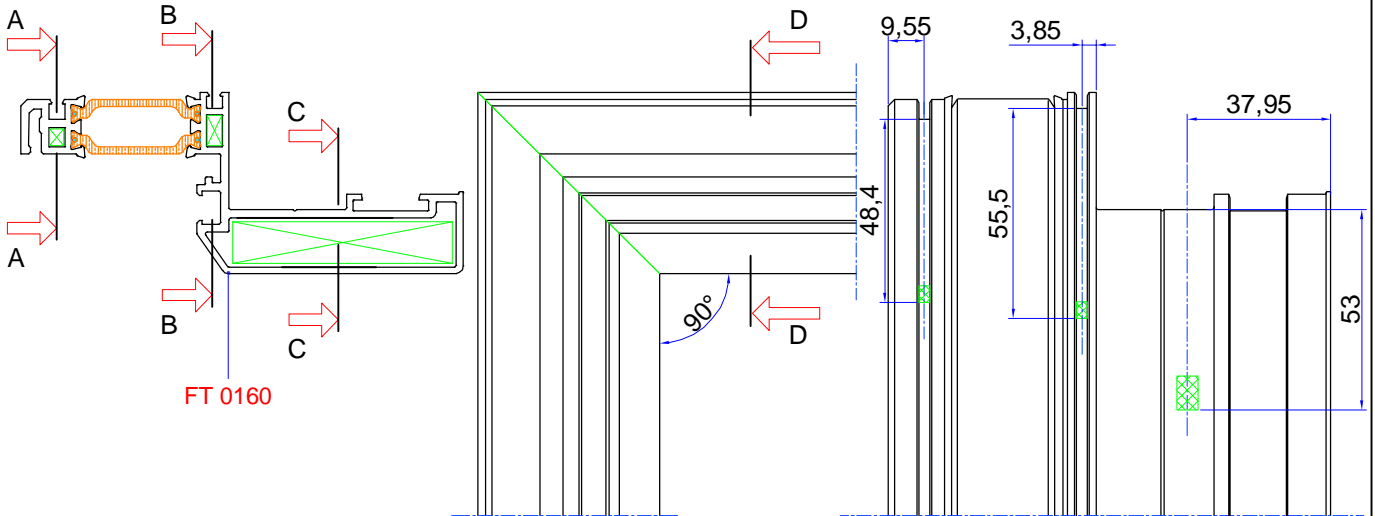
PRESJEK B-B



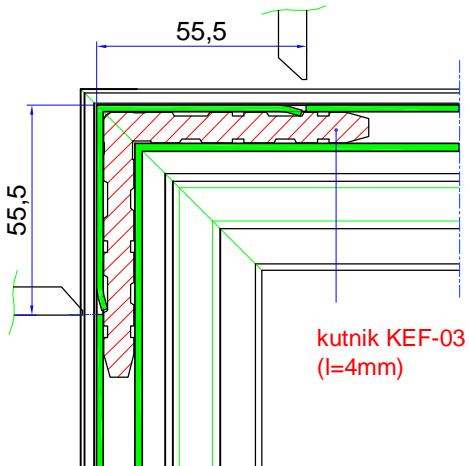
1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA
3. VIJČANA VEZA

- UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU

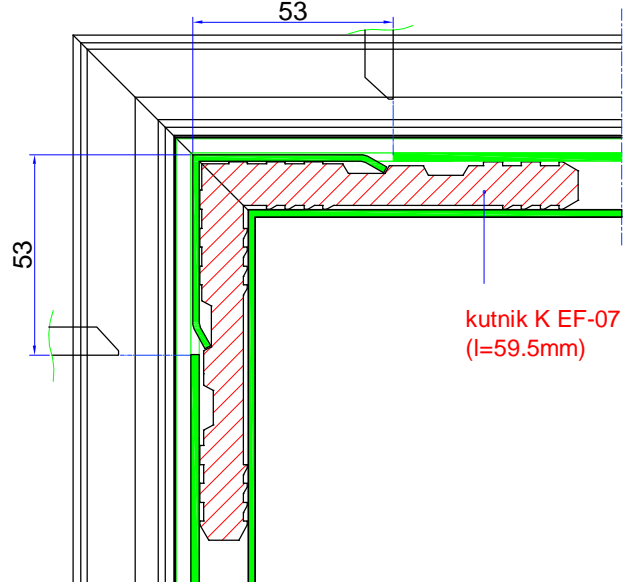
PRESJEK C-C



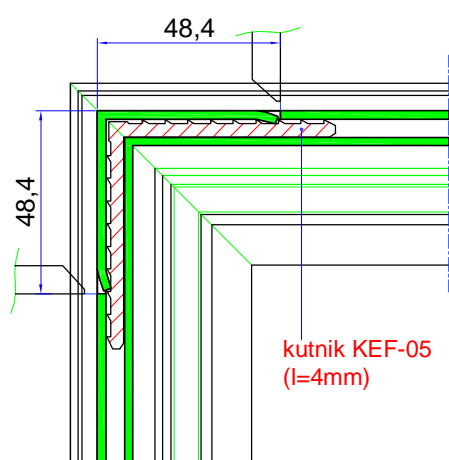
PRESJEK B-B



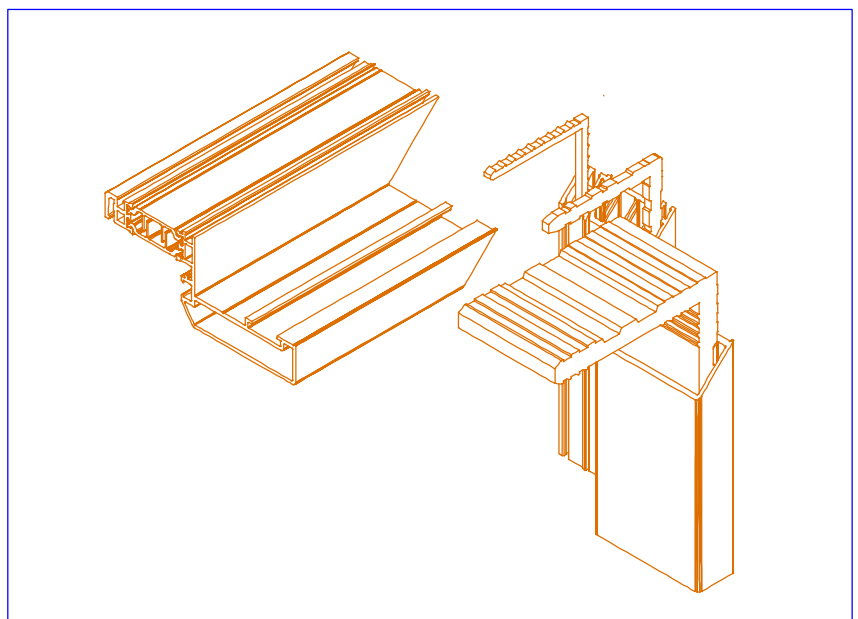
PRESJEK C-C



PRESJEK A-A

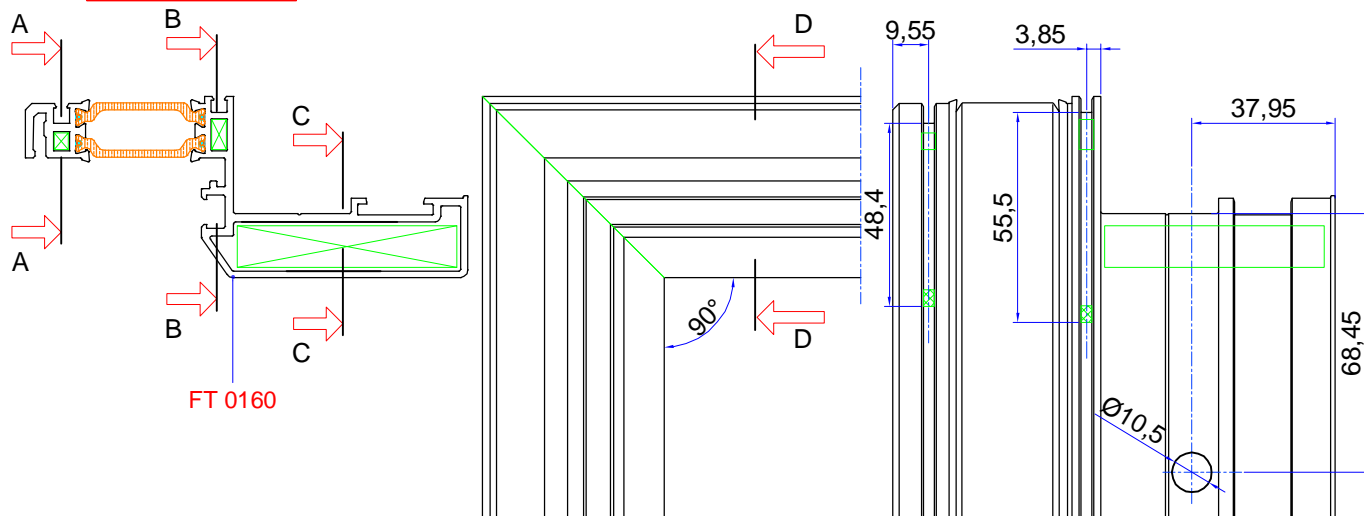


1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

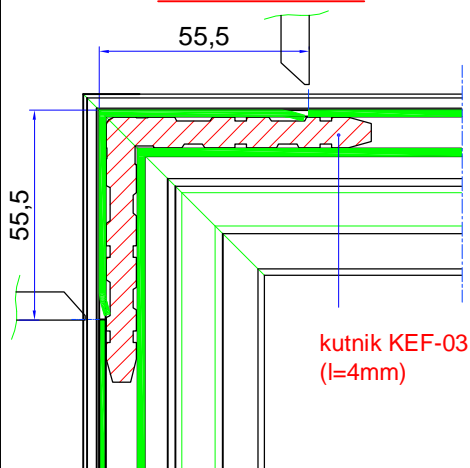


- UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU

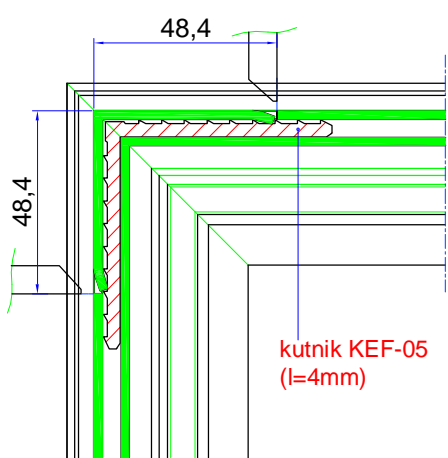
PRESJEK C-C



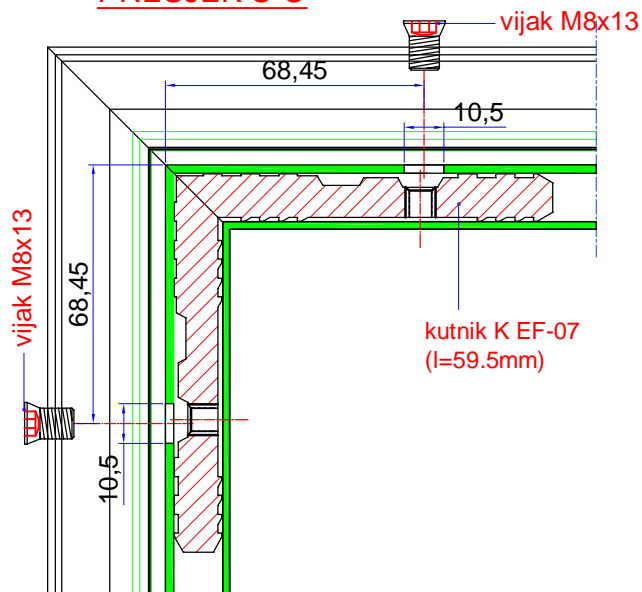
PRESJEK B-B



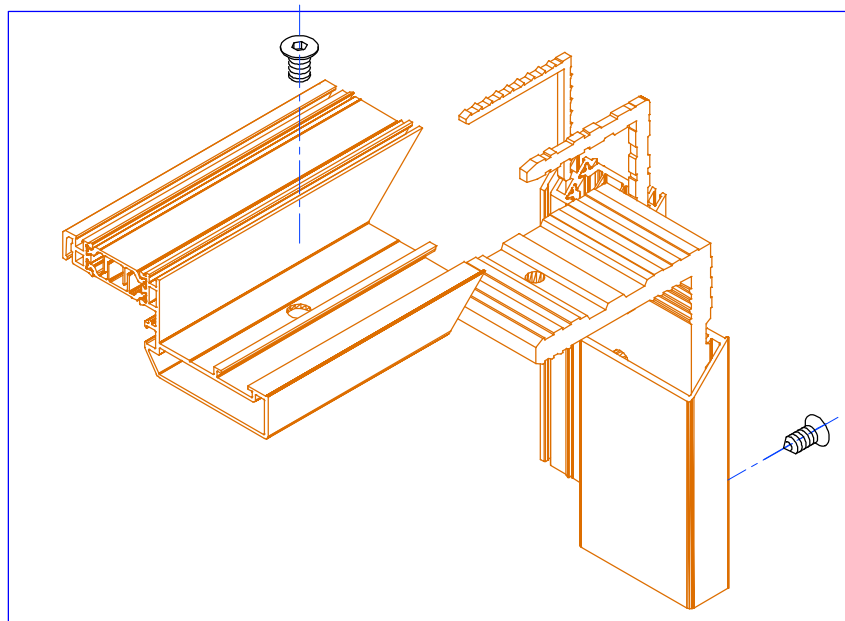
PRESJEK A-A



PRESJEK C-C

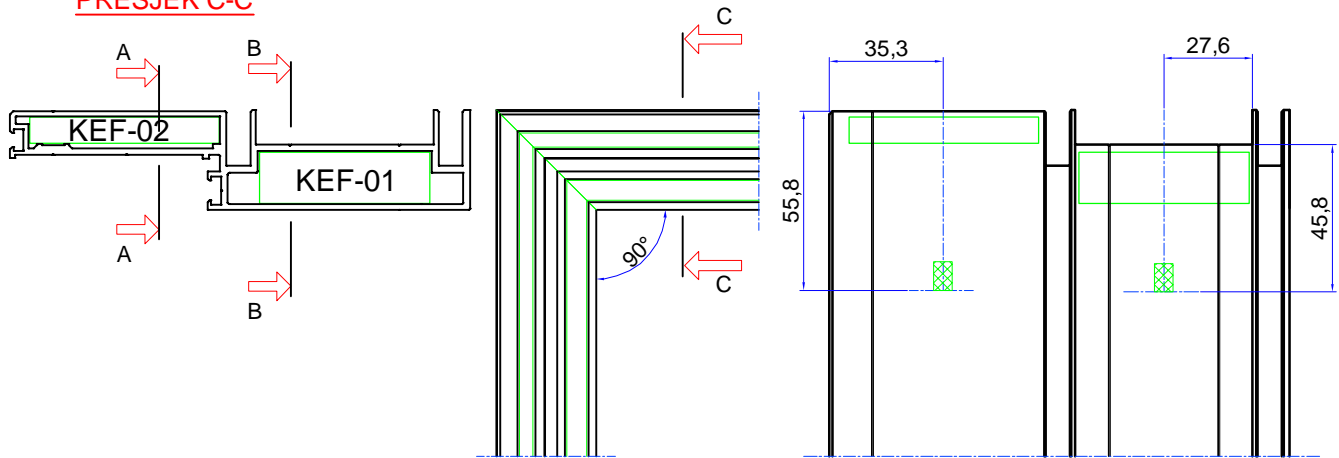


1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA
3. VIJČANA VEZA

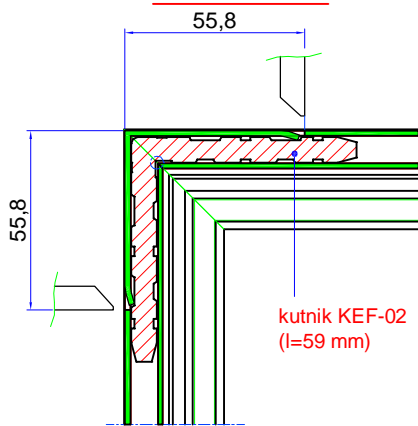


- NERASTAVLJIVI SPOJEVI UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU

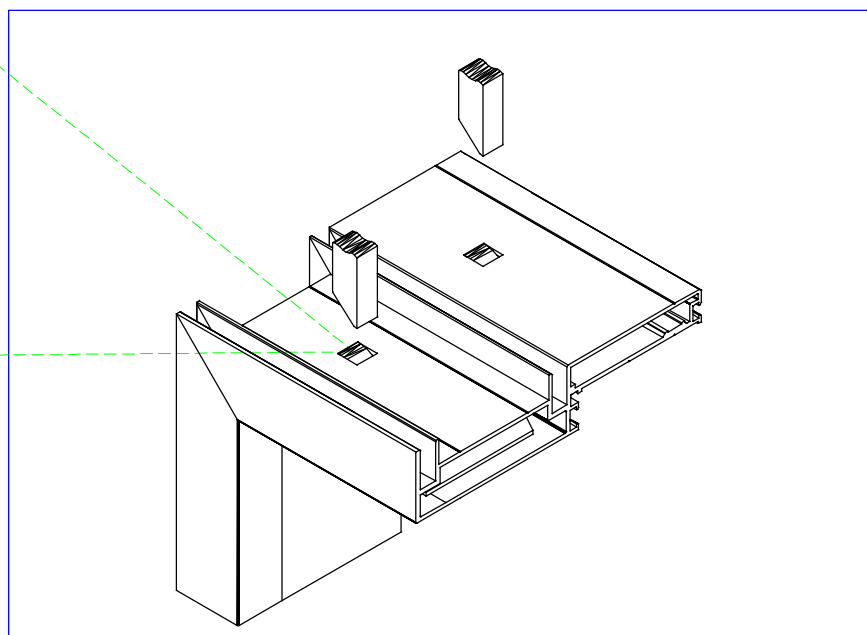
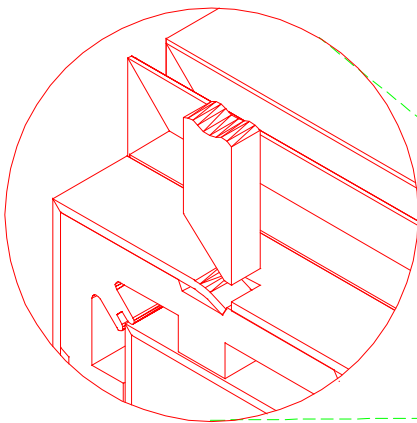
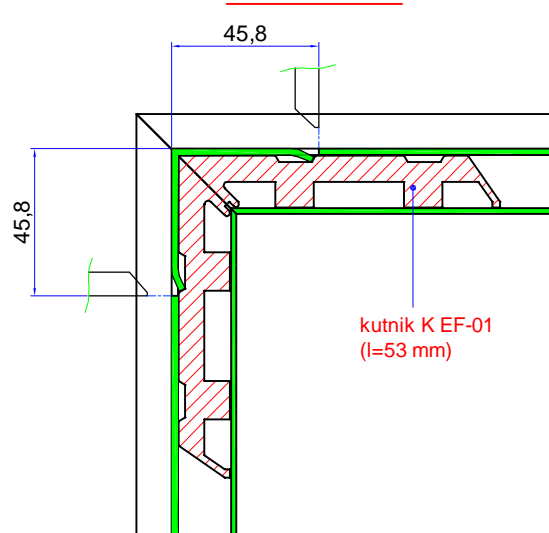
PRESJEK C-C



PRESJEK A-A



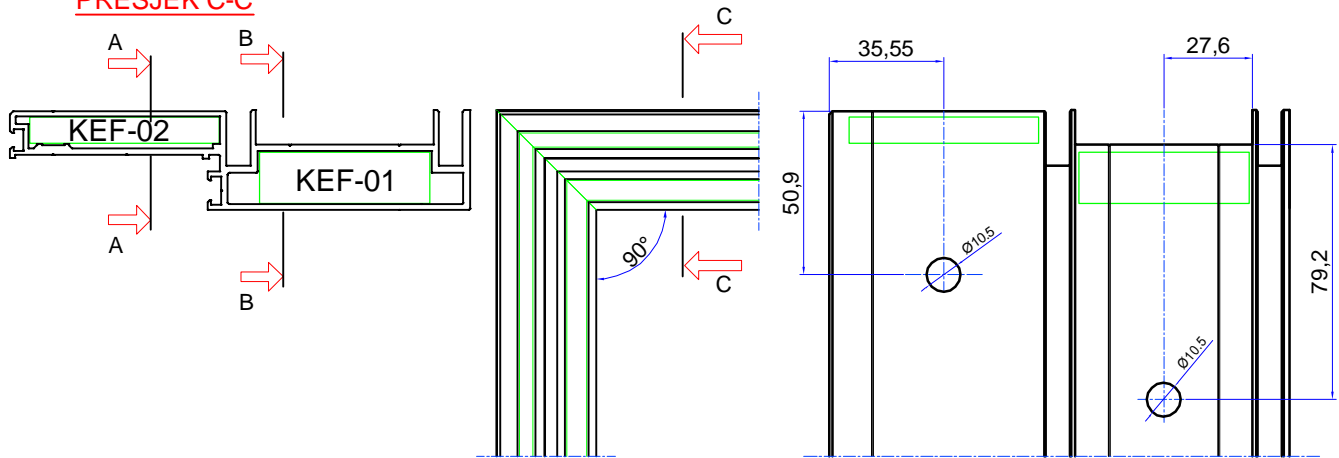
PRESJEK B-B



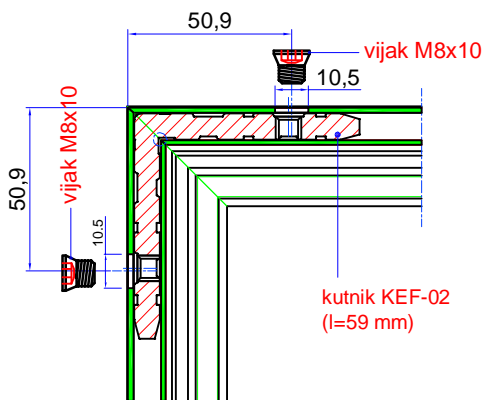
1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

- RASTAVLJIVI SPOJEVI (VIJČANA VEZA)

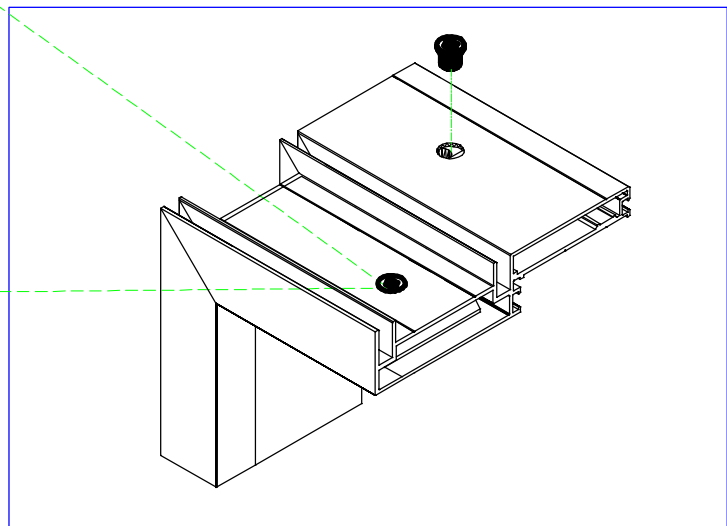
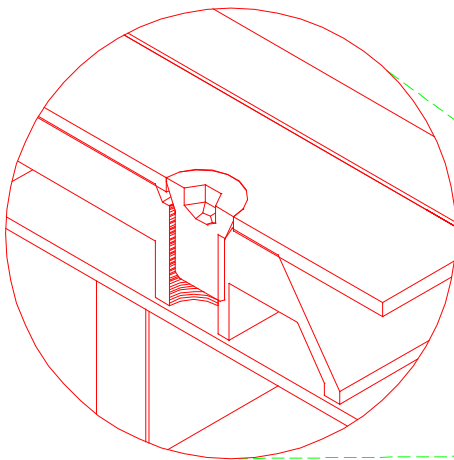
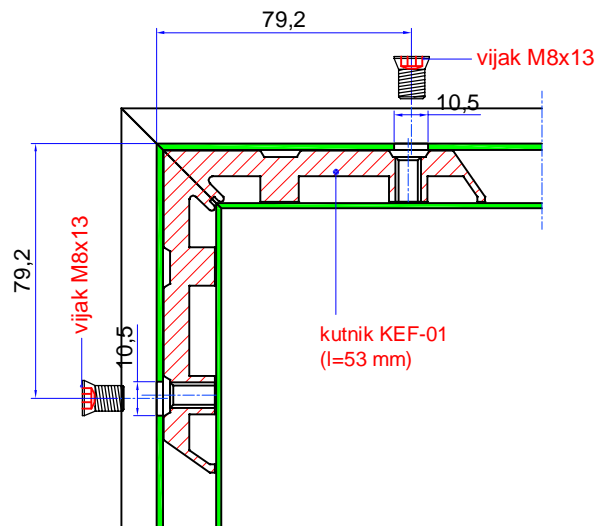
PRESJEK C-C



PRESJEK A-A

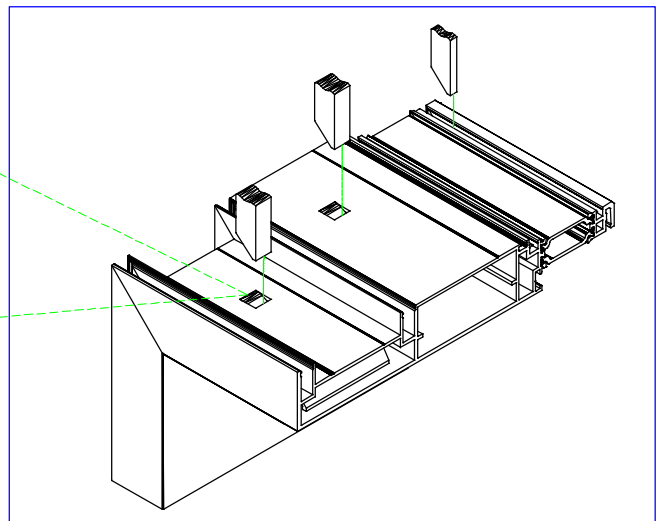
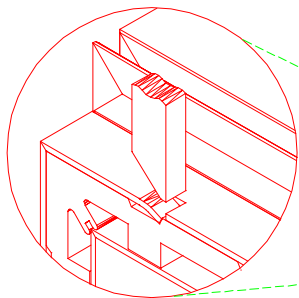
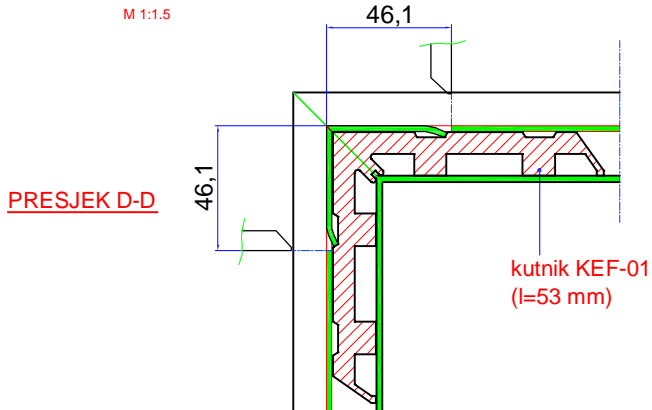
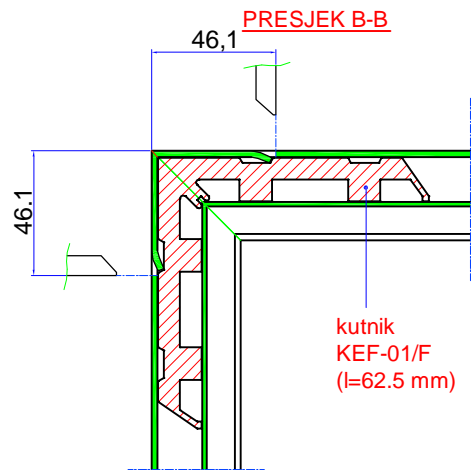
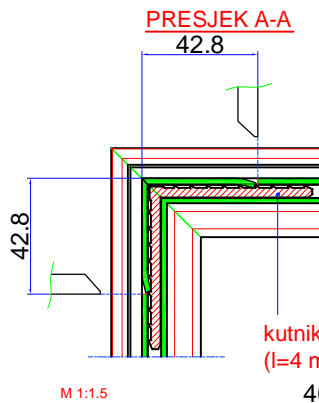
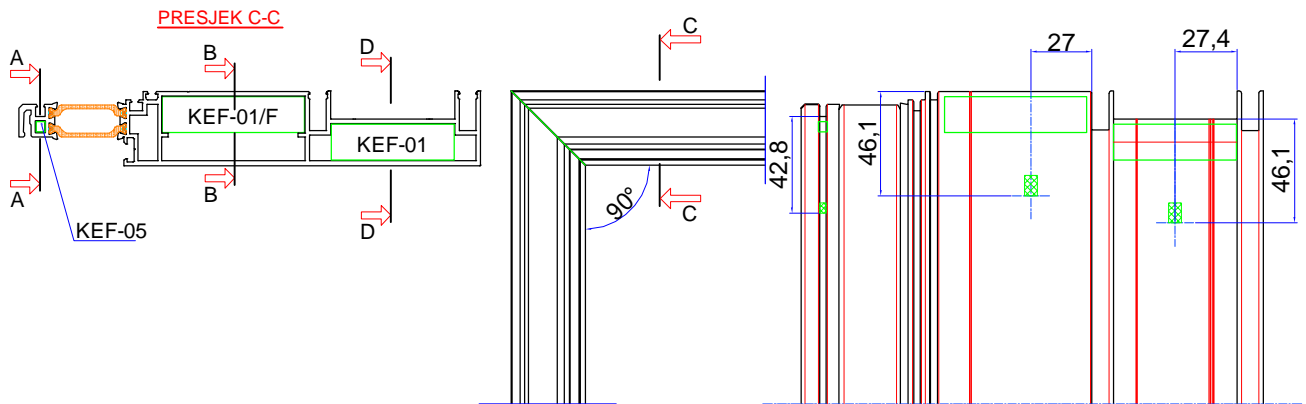


PRESJEK B-B



1. VIJČANA VEZA

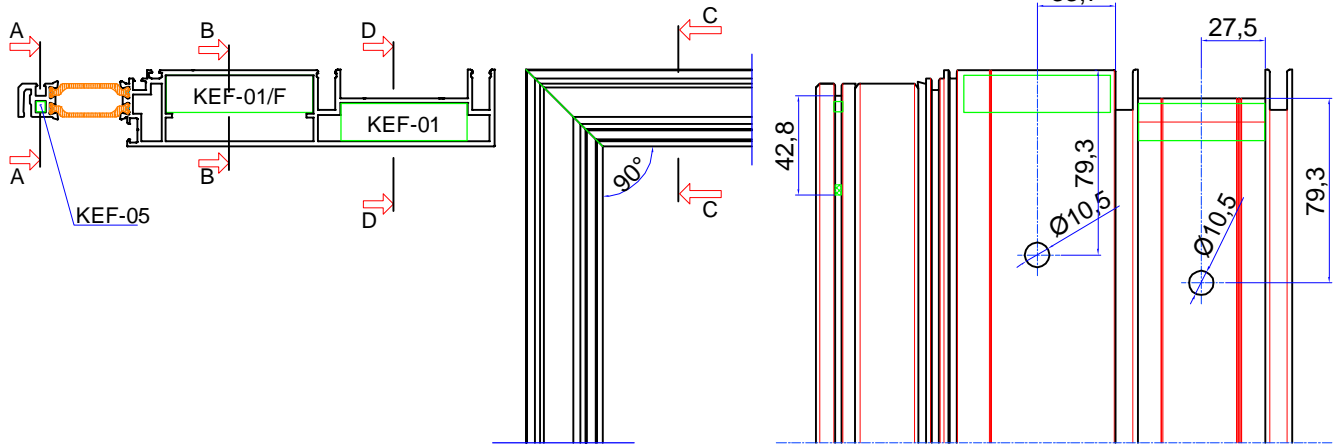
- NERASTAVLJIVI SPOJEVI UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU



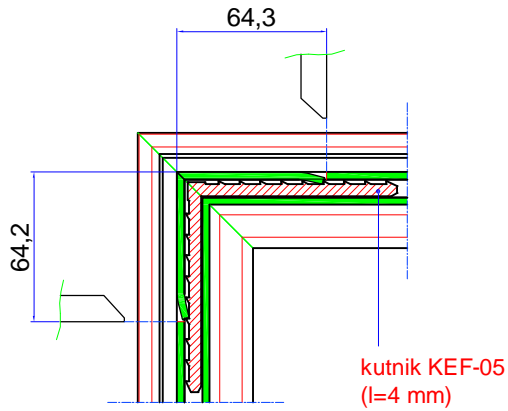
1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

- RASTAVLJIVI SPOJEVI (VIJČANA VEZA)

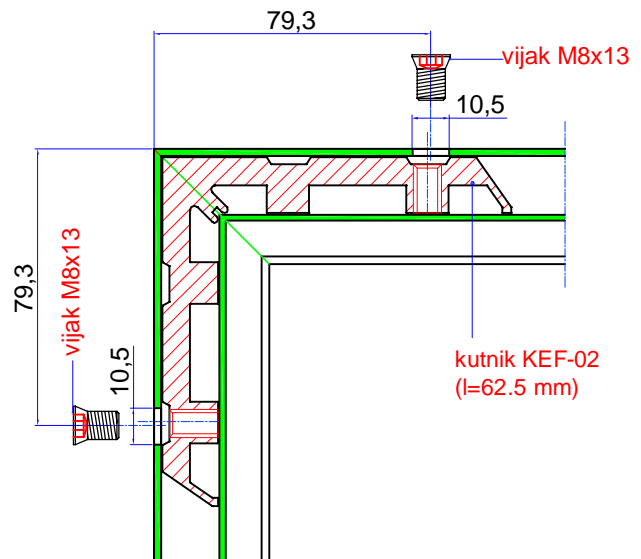
- NERASTAVLJIVI SPOJEVI UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU



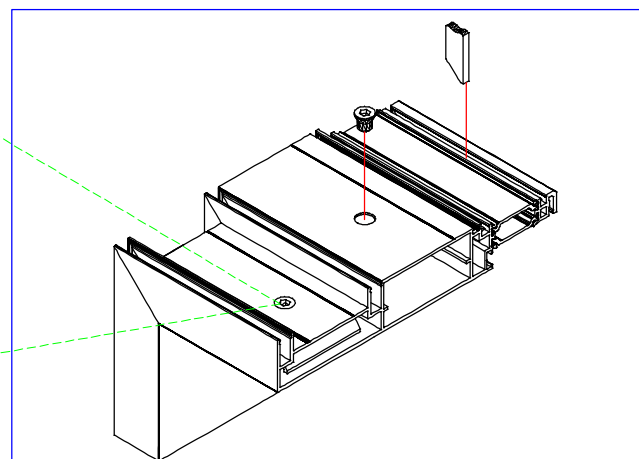
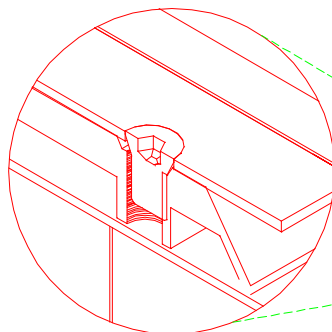
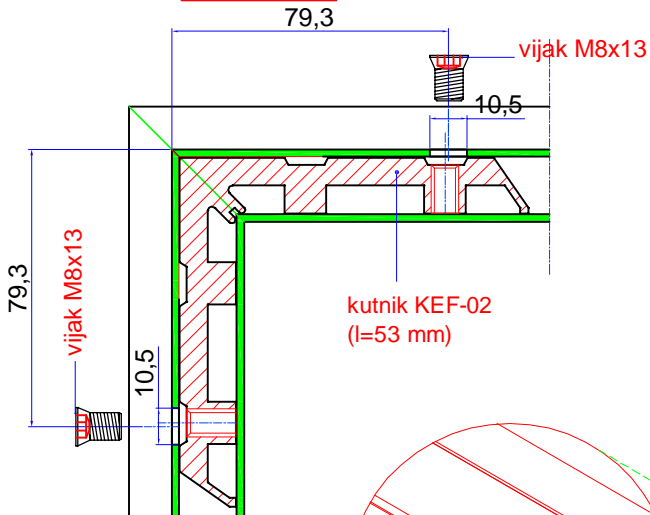
PRESJEK A-A



PRESJEK B-B

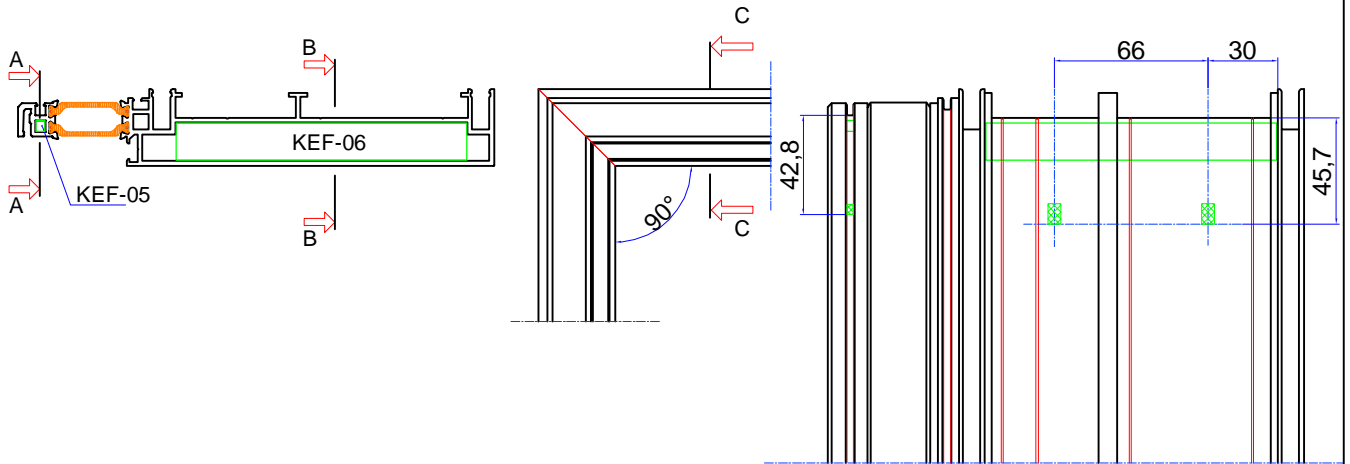


PRESJEK D-D

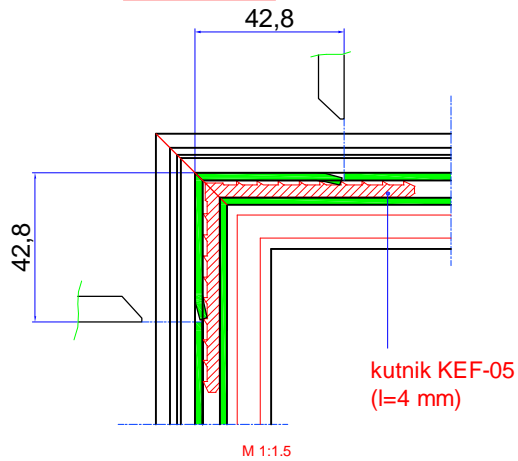


1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA
3. VIJČANA VEZA

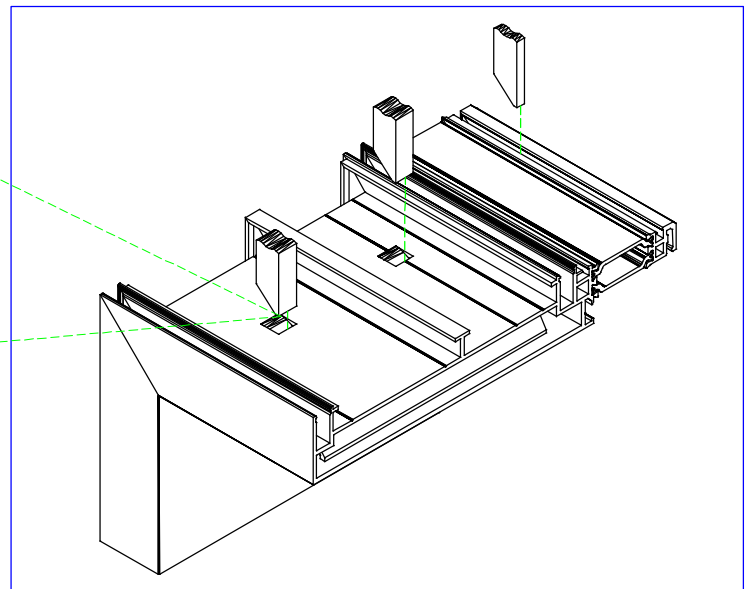
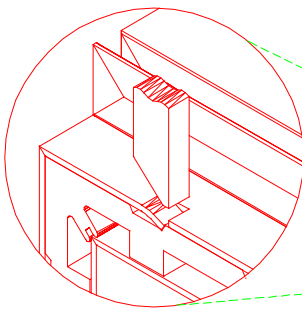
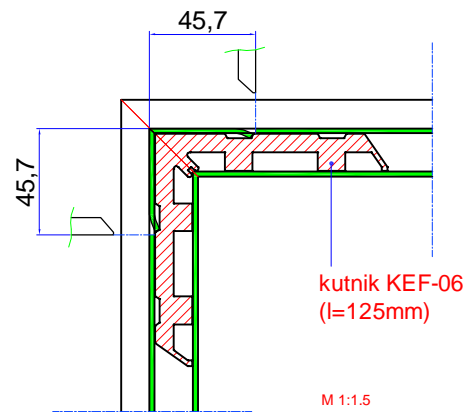
- NERASTAVLJIVI SPOJEVI UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU



PRESJEK A-A



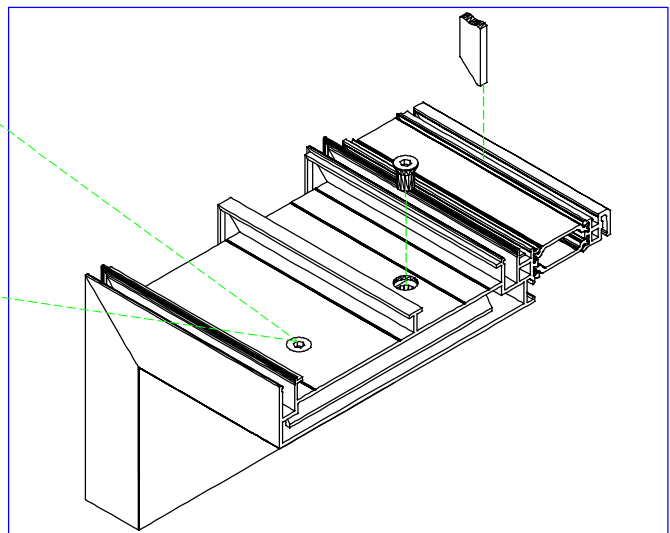
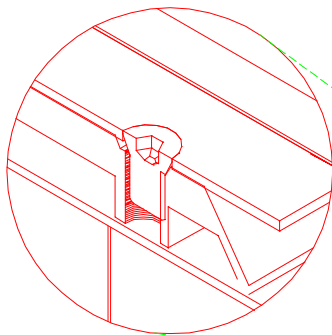
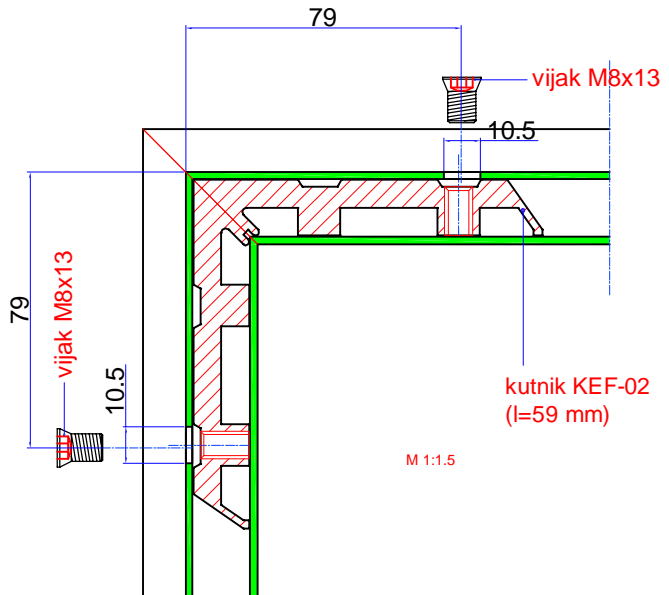
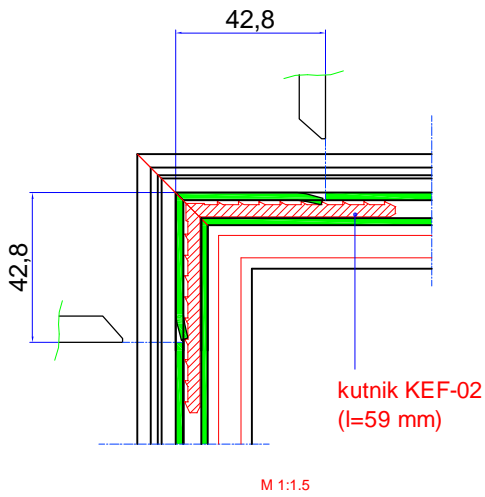
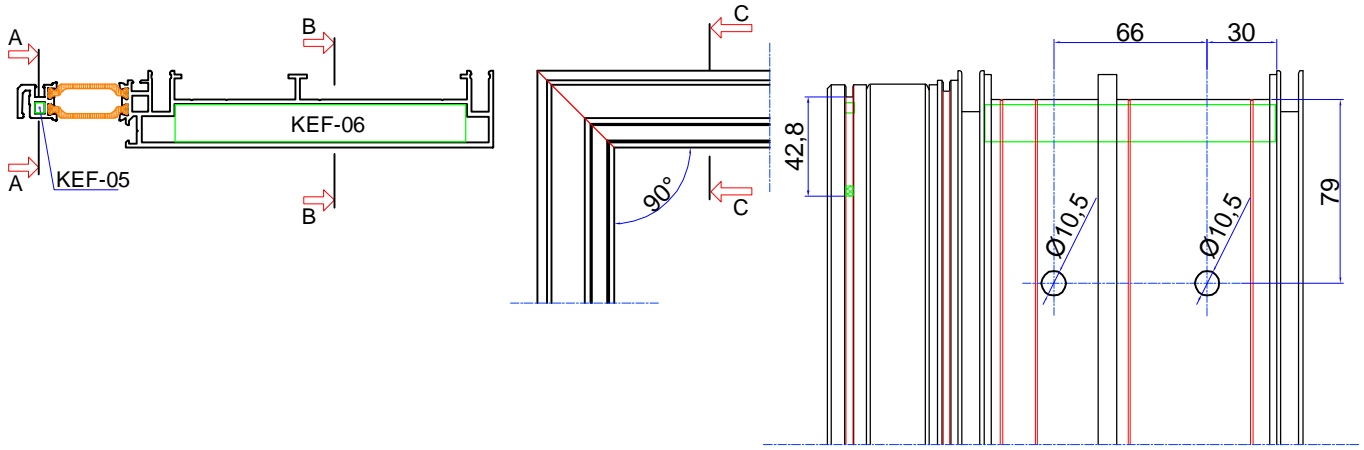
PRESJEK B-B



1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

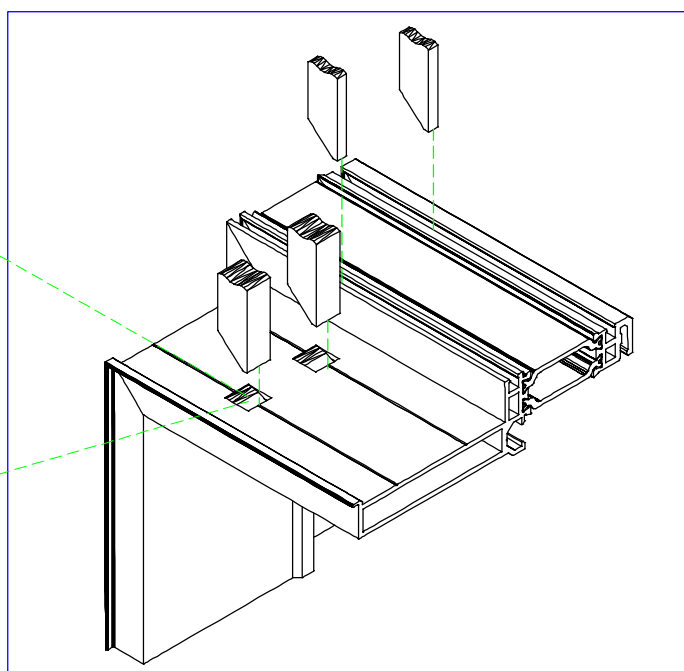
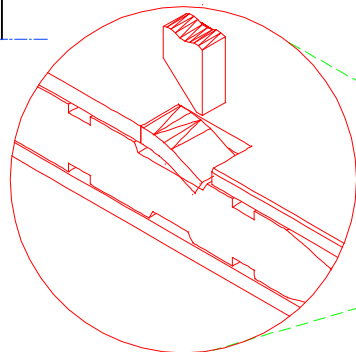
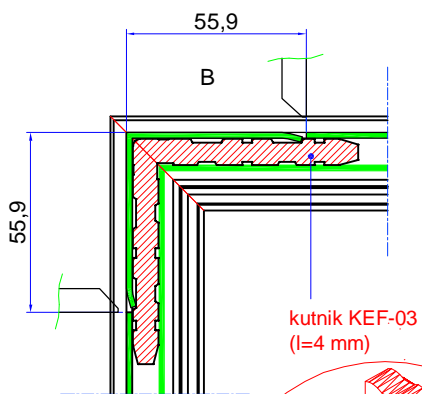
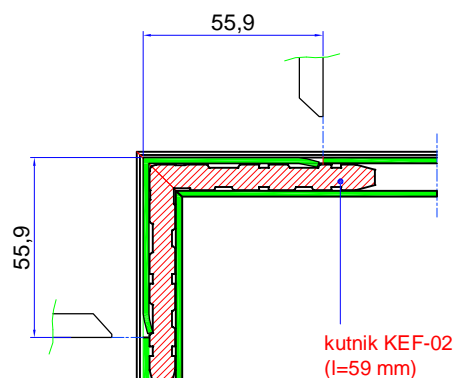
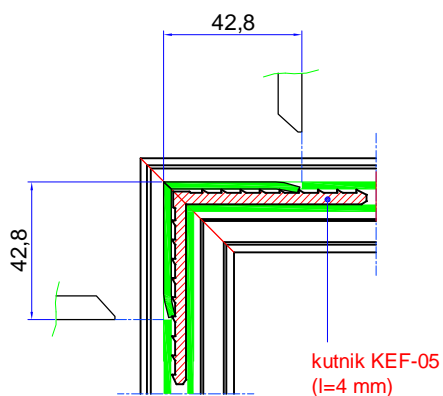
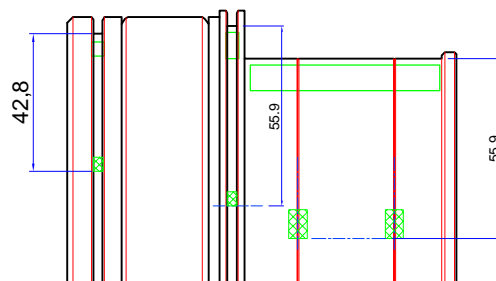
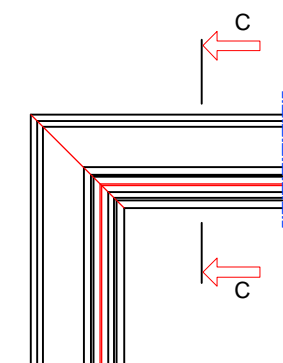
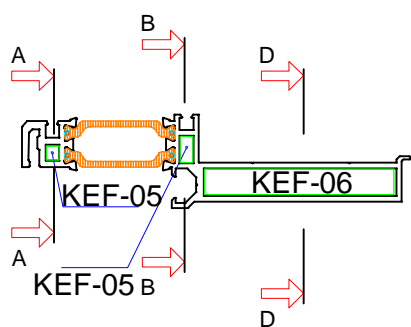
- RASTAVLJIVI SPOJEVI (VIJČANA VEZA)

- NERASTAVLJIVI SPOJEVI UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU



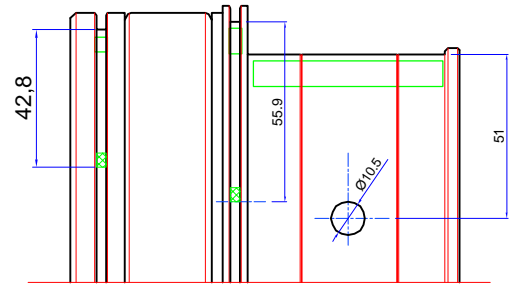
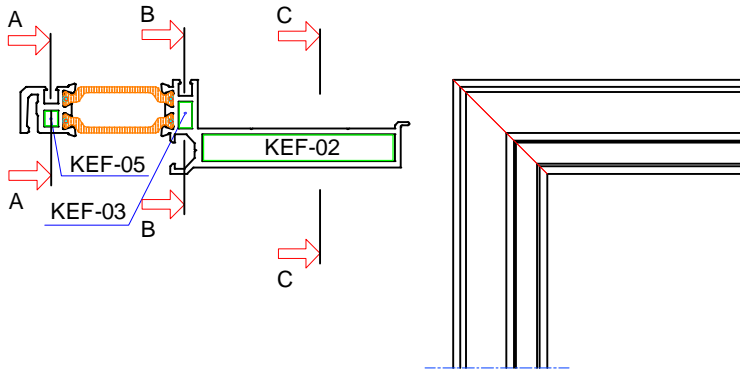
1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA
3. VIJČANA VEZA

- UPREŠAVANJE STJENKE PROFILA PREMA KUTNIKU

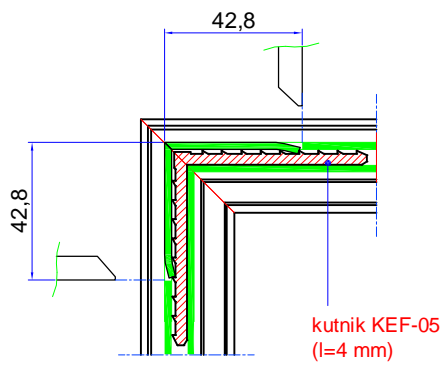


1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

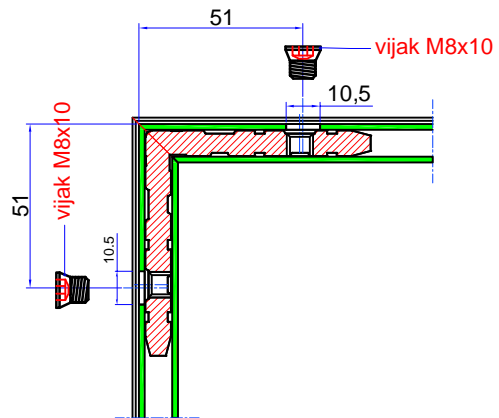
- RASTAVLJIVI SPOJEVI (VIJČANA VEZA)



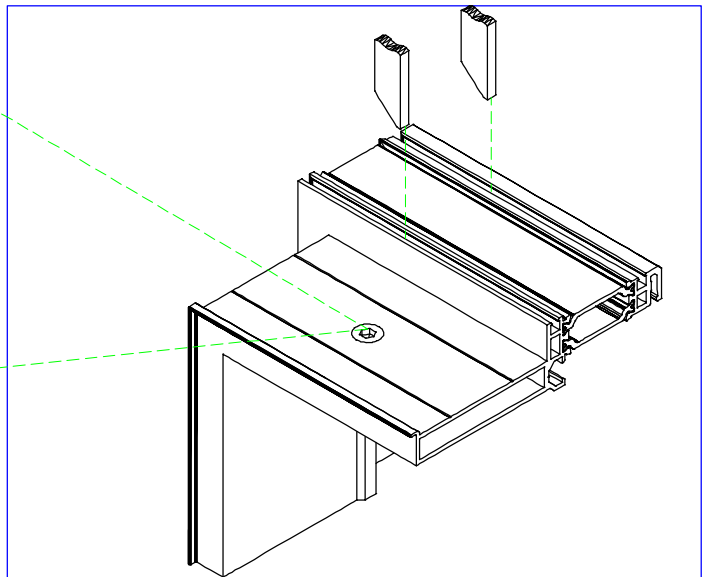
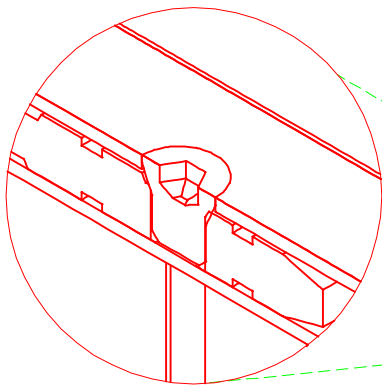
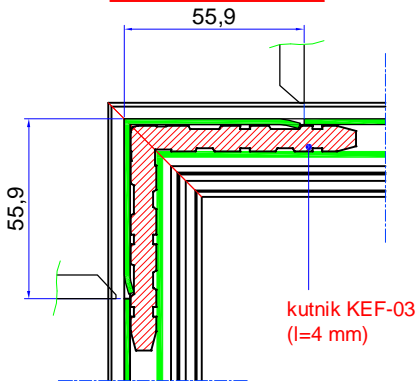
PRESJEK A-A



PRESJEK B-B



PRESJEK C-C

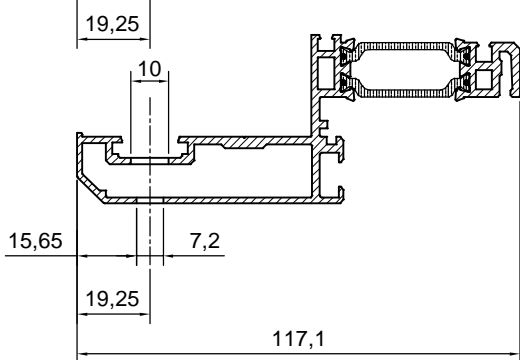
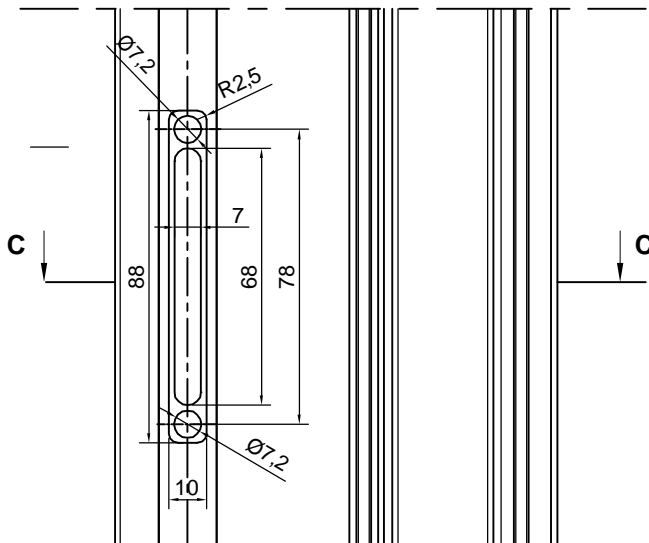
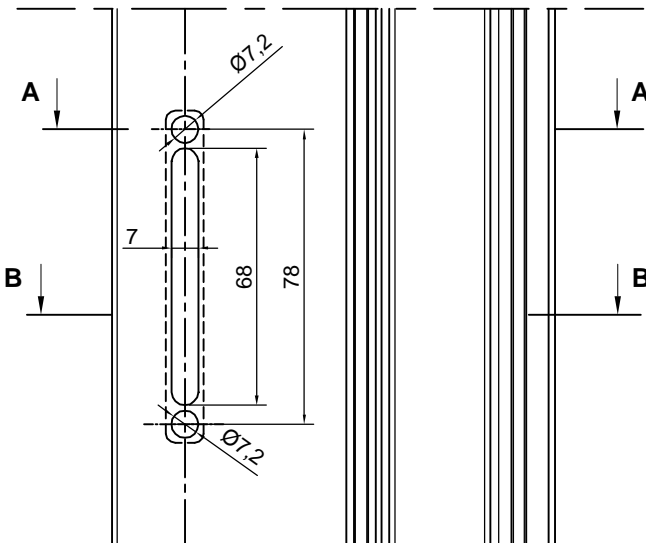


1. STROJNO UPREŠAVANJE
2. RUČNO UPREŠAVANJE-ŠKARAMA

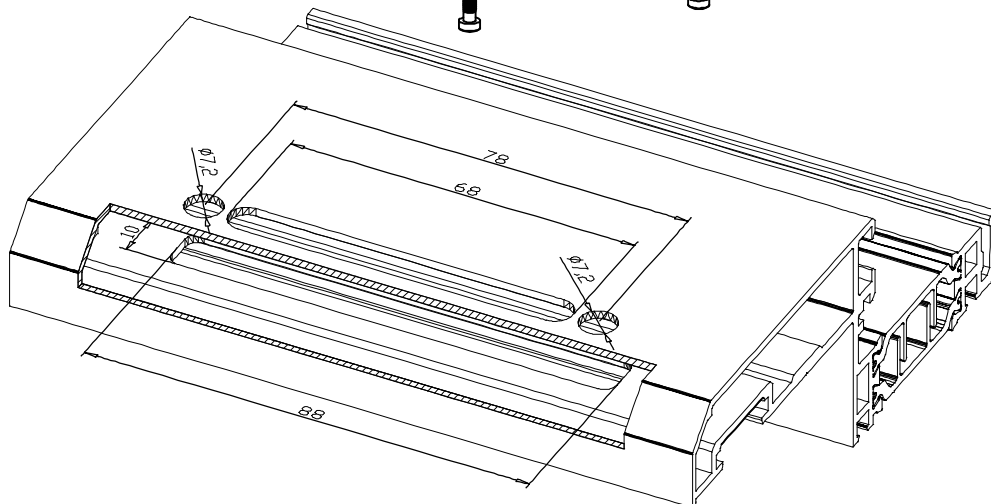
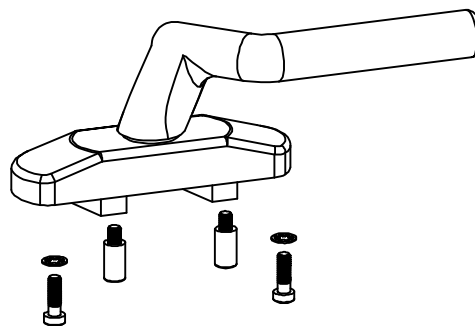
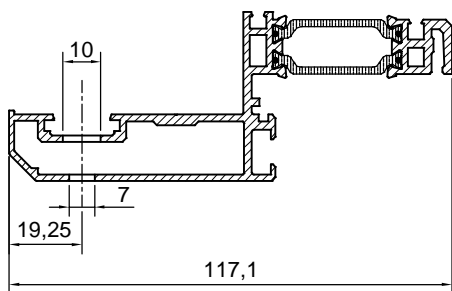
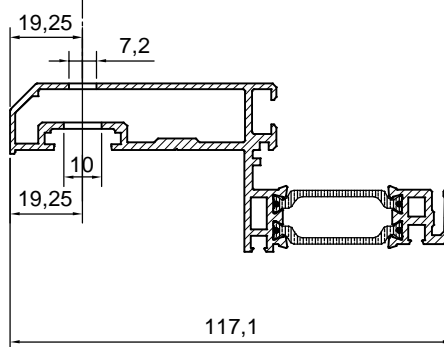
FT-0136

OBRADA PROFILA ZA RUČKU (notter)- 08487626

28
23



FT-0136
tež.: 1.85 kg/m

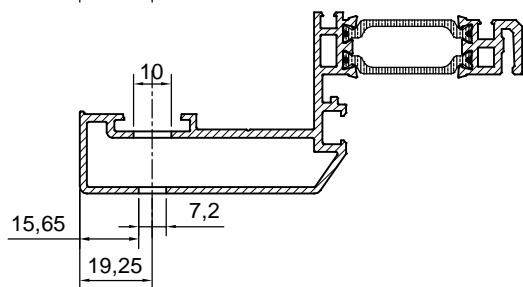
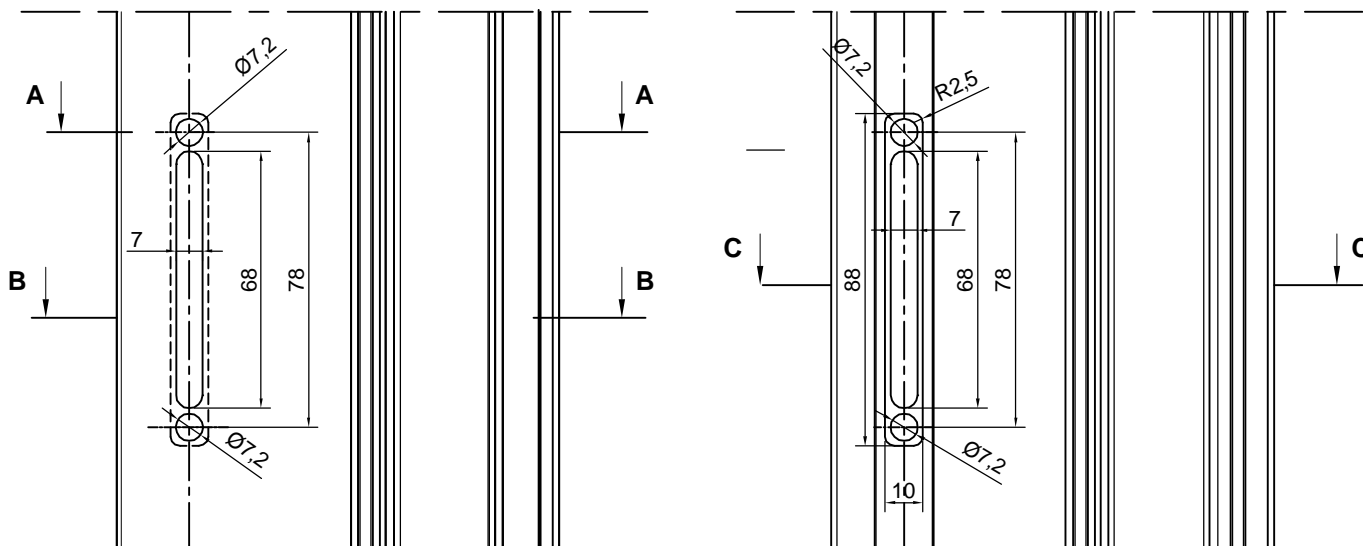


FT-0160

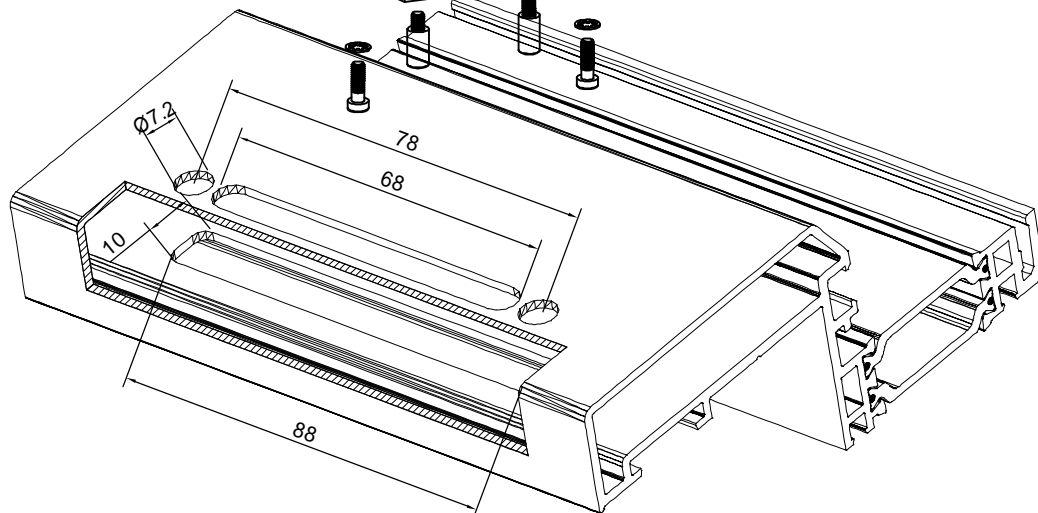
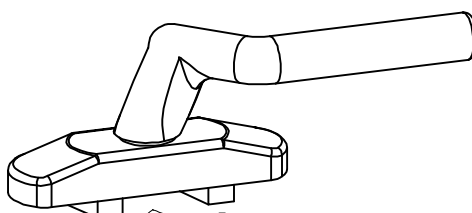
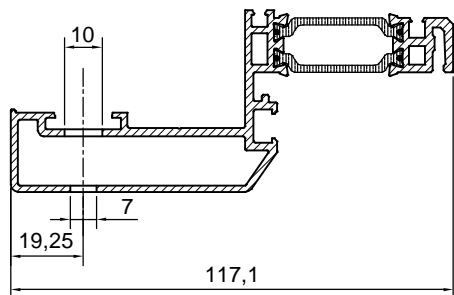
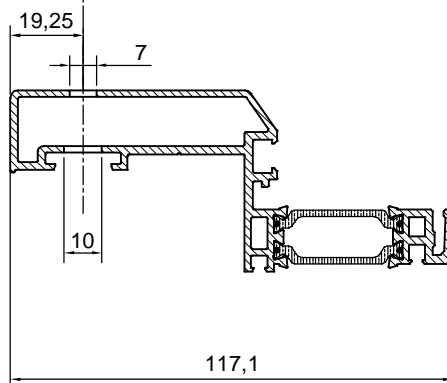
OBRADA PROFILA ZA RUČKU (notter)- 08487626

28

23



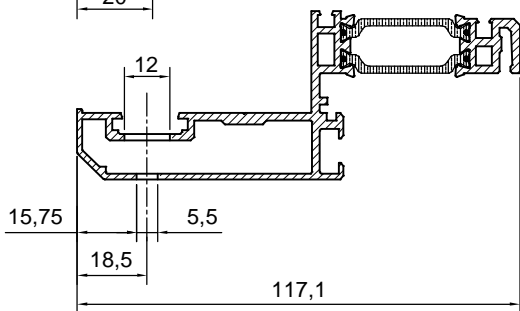
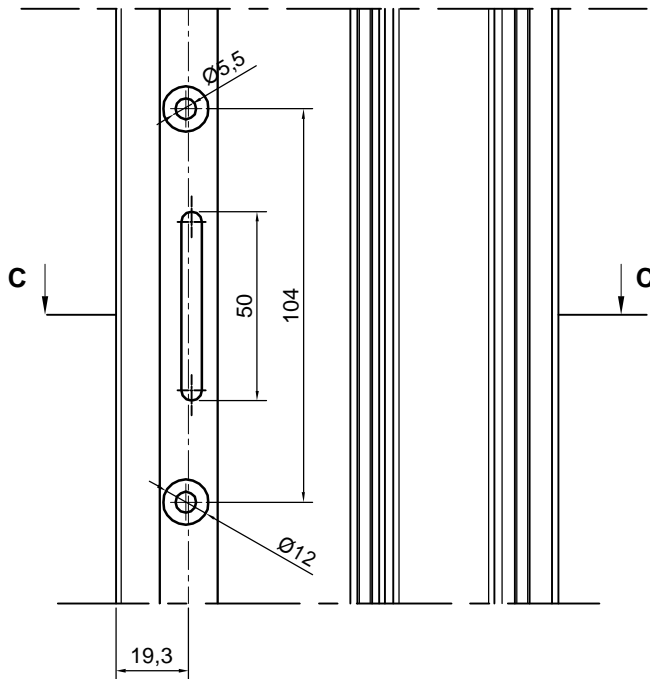
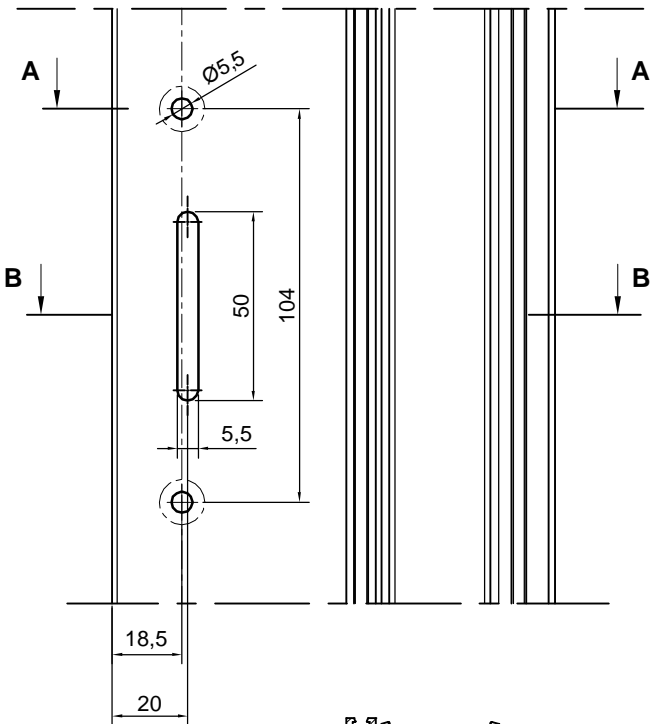
FT-0160
tež.: 1.87 kg/m'



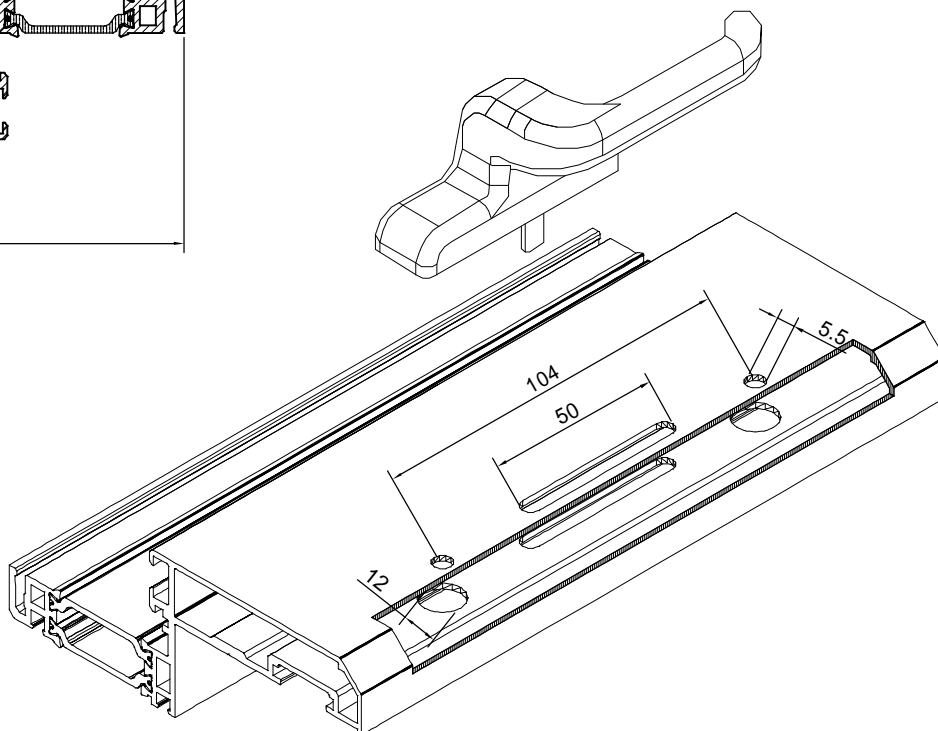
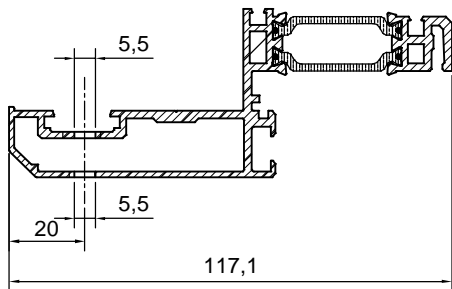
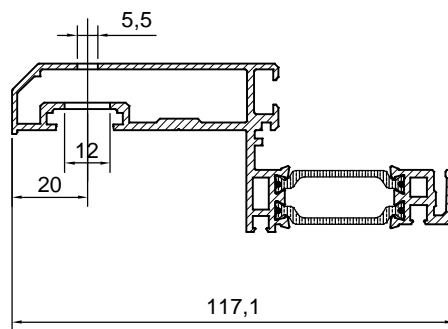
FT-0136

OBRADA PROFILA ZA RUČKU (G-U) - G-46551-96-0-1

53



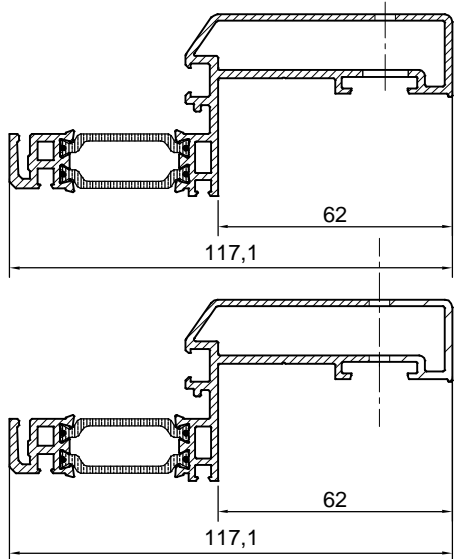
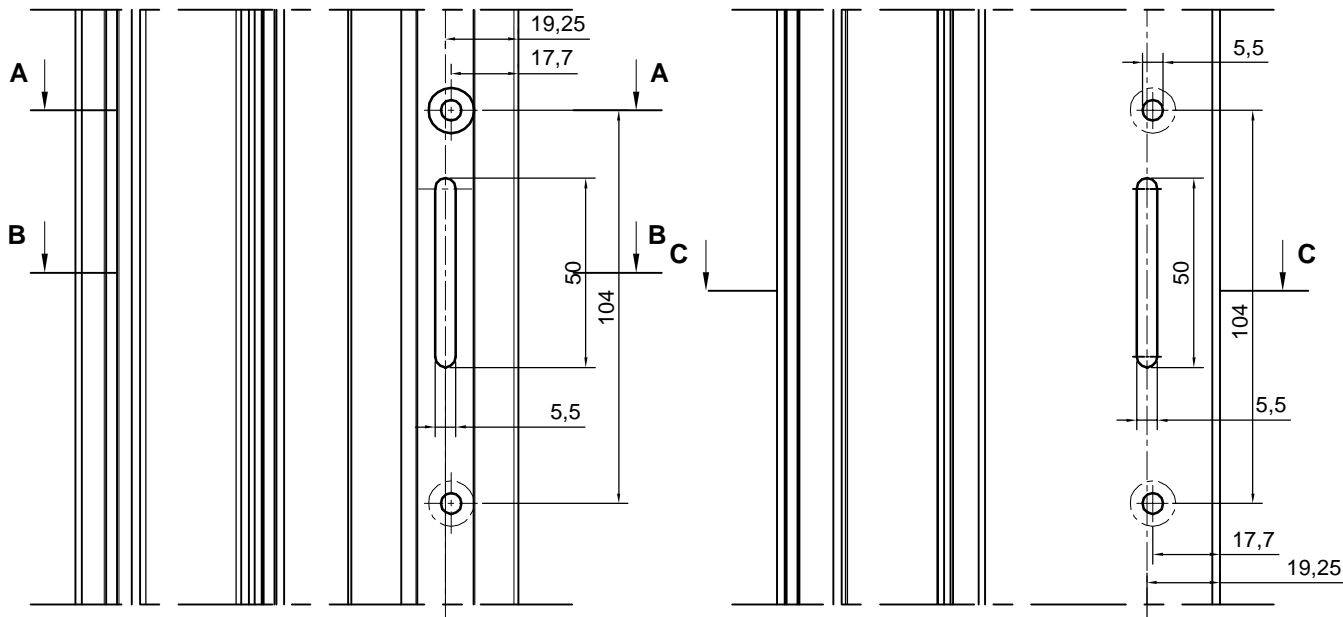
FT-0136
tež.: 1,85 kg/m'



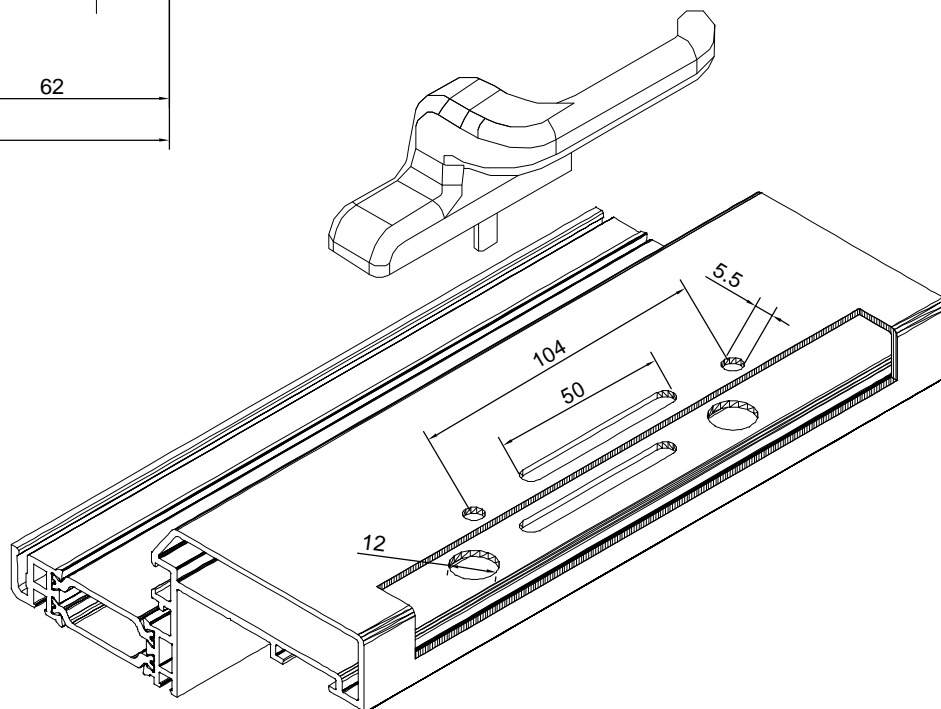
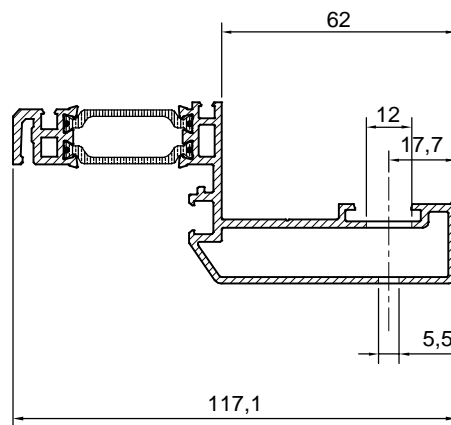
FT-0160

OBRADA PROFILA ZA RUČKU (G-U) - G-46551-96-0-1

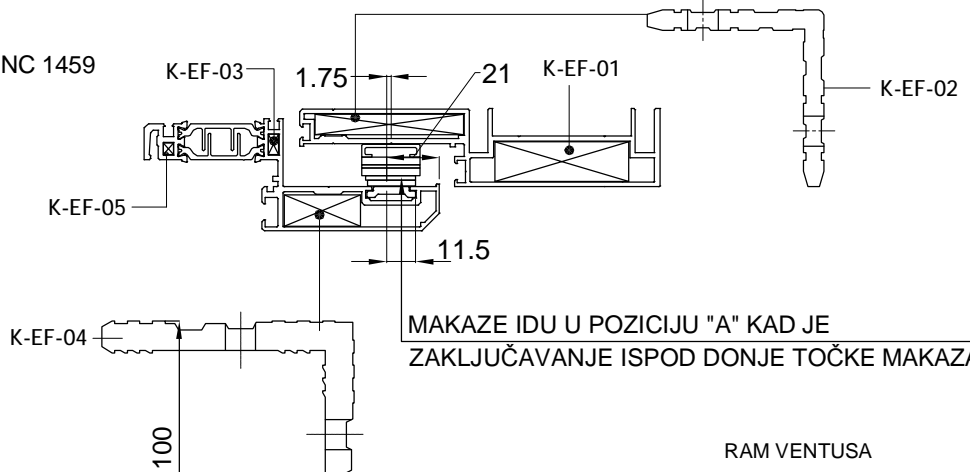
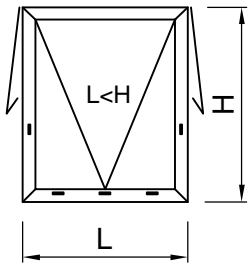
53



FT-0160
tež.: 1,87 kg/m

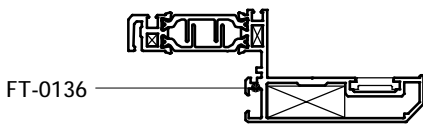


- BUŠENJE -
MAKAZE SA KLIZAČEM NC 1459

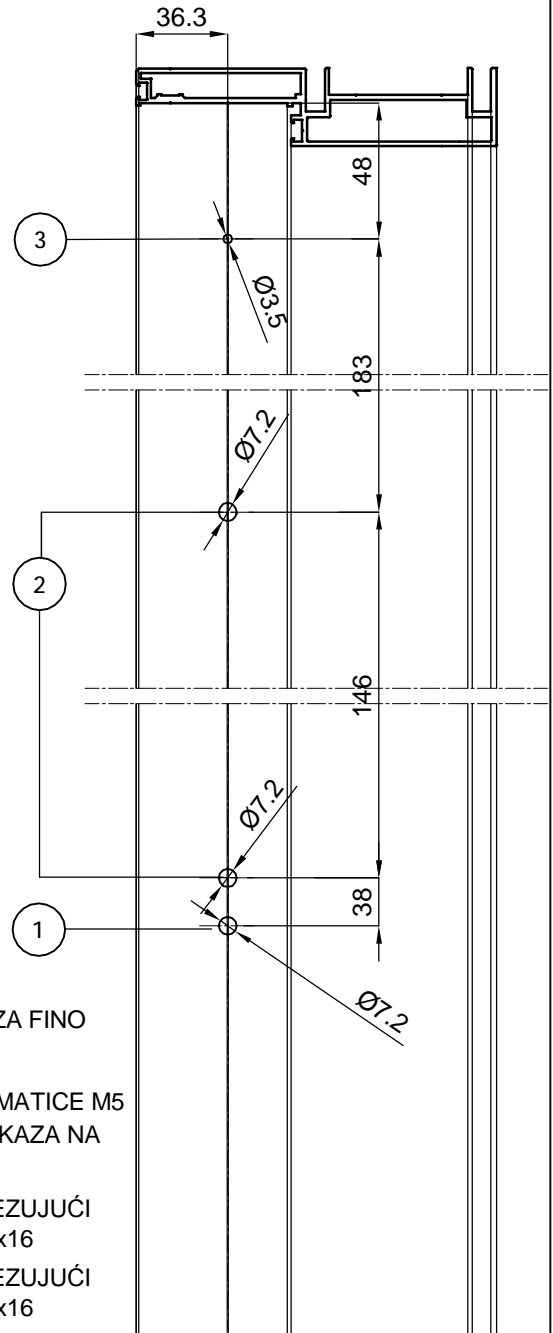
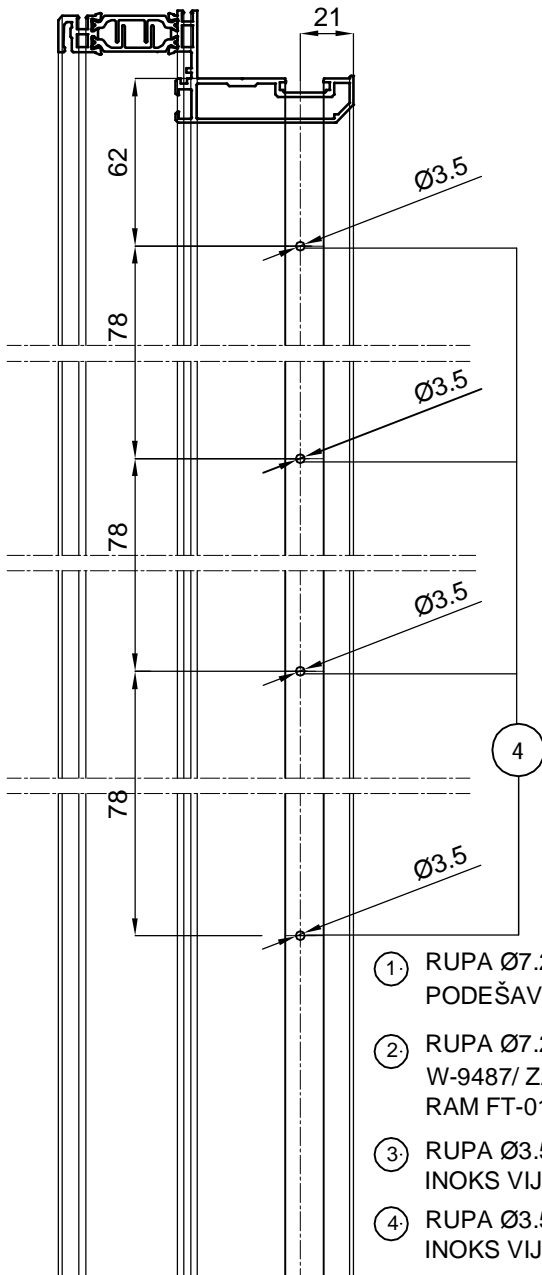
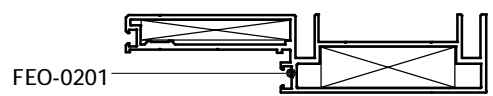


MAKAZE IDU U POZICIJU "A" KAD JE
ZAKLJUČAVANJE ISPOD DONJE TOČKE MAKAZA

KRILO VENTUSA



RAM VENTUSA



- ① RUPA Ø7.2-ZA ELEMENT ZA FINO PODEŠAVANJE
- ② RUPA Ø7.2 - ZA ZAKIVNE MATICE M5 W-9487/ ZA MONTAŽU MAKAZA NA RAM FT-0126
- ③ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7981 4.2x16
- ④ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7982 4.2x16

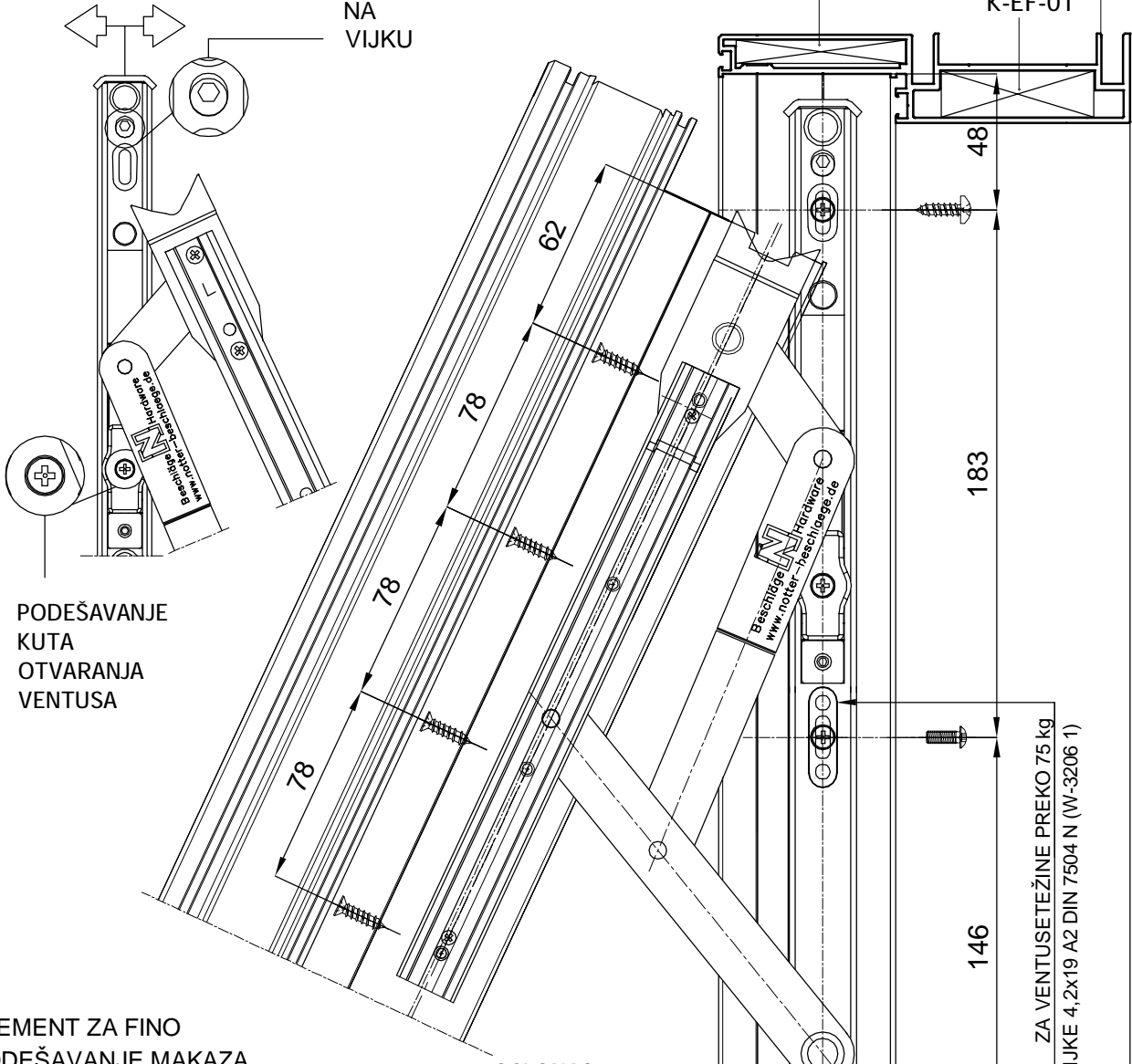
- FIKSIRANJE -
MAKAZE SA KLIZAČEM NC-1459

FEO-0201

PODEŠAVANJE
NA
VIJKU

K-EF-01

K-EF-01



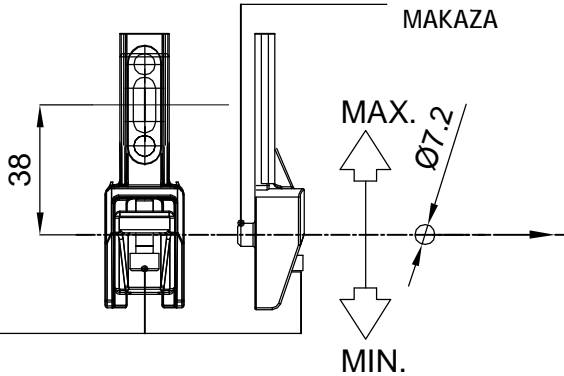
PODEŠAVANJE
KUTA
OTVARANJA
VENTUSA

ELEMENT ZA FINO
PODEŠAVANJE MAKAZA

OSLONAC
MAKAZA

ZA VENTUSETEŽINE PREKO 75 kg
ZA VENTUSETEŽINE PREKO 75 kg
(W-3206 1)

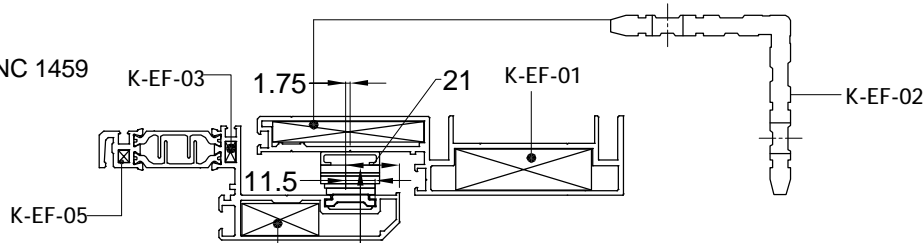
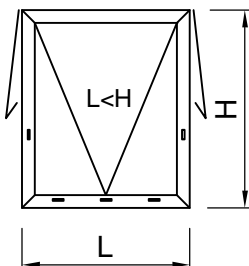
VIJAK ZA
PODEŠAVANJE
VISINE



VIJAK ZA
PODEŠAVANJE
VISINE

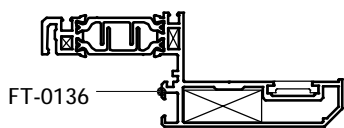
- BUŠENJE -

MAKAZE SA KLIZAČEM NC 1459

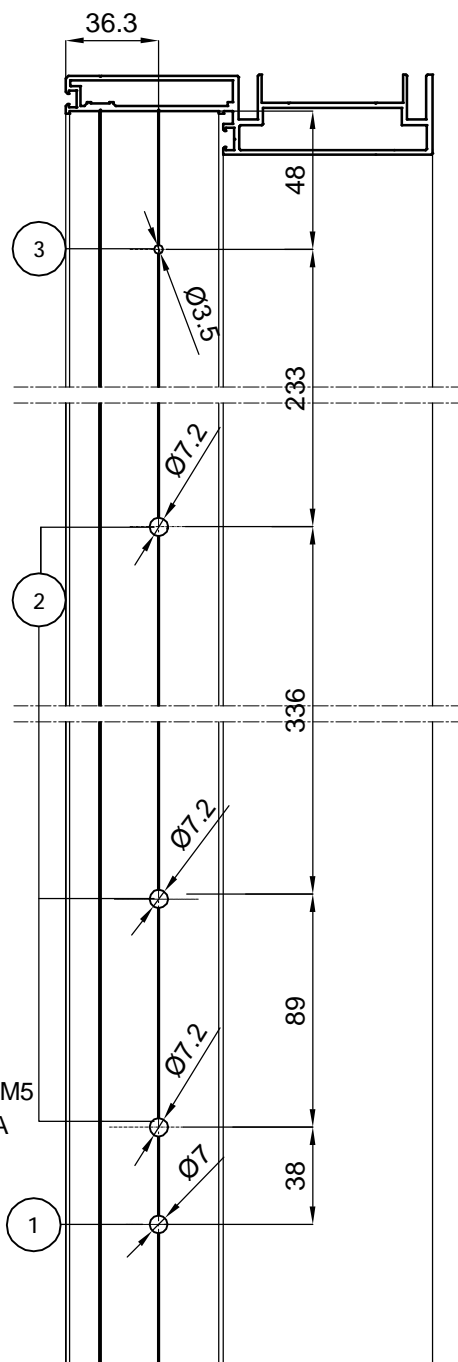
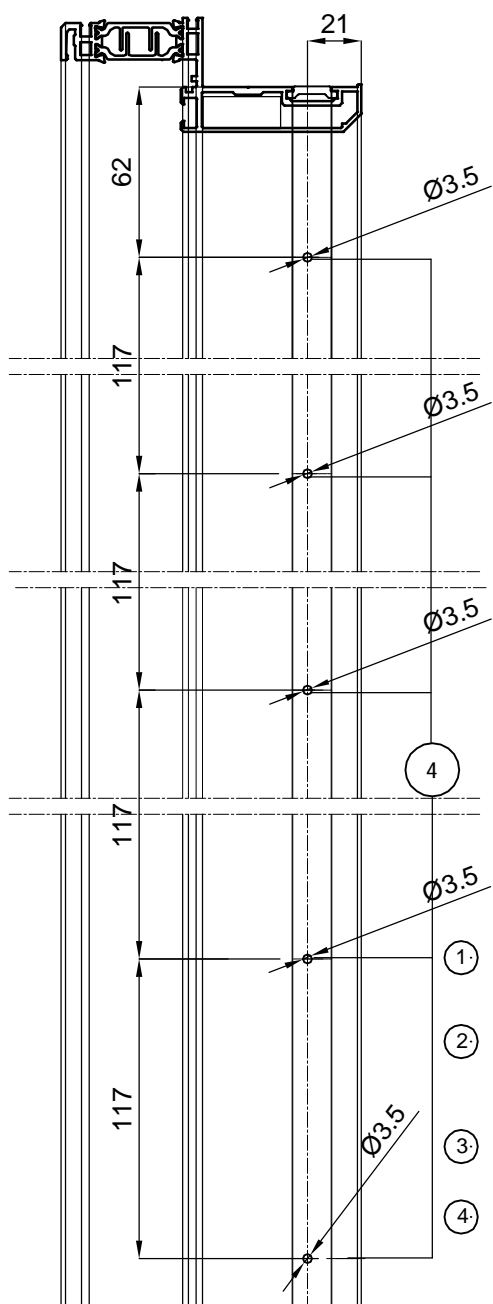
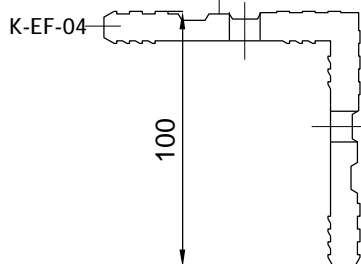


MAKAZE IDU U POZICIJU "A" KAD JE ZAKLJUČAVANJE ISPOD DONJE TOČKE MAKAZA

KRILO VENTUSA

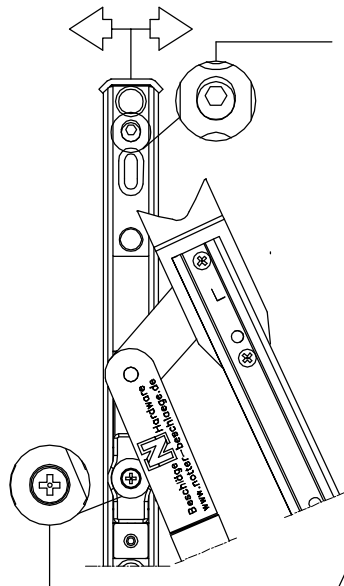


RAM VENTUSA



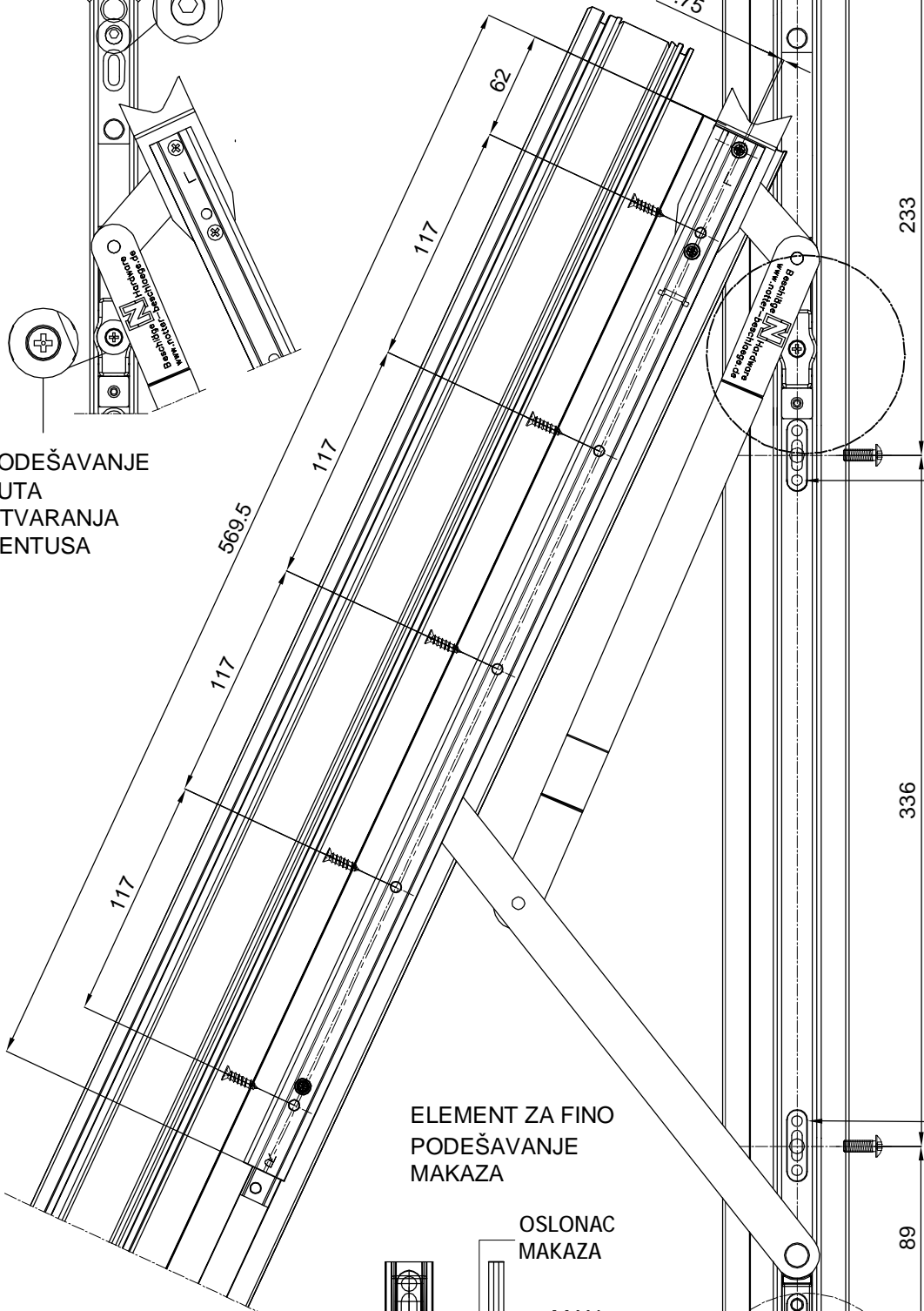
- ① RUPA Ø7.2-ZA ELEMENT ZA FINO PODEŠAVANJE
- ② RUPA Ø7.2 - ZA ZAKIVNE MATICE M5 W-9487/ ZA MONTAŽU MAKAZA NA RAM FT-0126
- ③ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7981 4.2x16
- ④ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7982 4.2x16

- FIKSIRANJE -
MAKAZE SA KLIZAČEM NC-1459



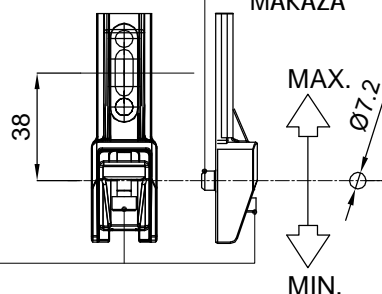
PODEŠAVANJE
NA
VIJKU

PODEŠAVANJE
KUTA
OTVARANJA
VENTUSA



ELEMENT ZA FINO
PODEŠAVANJE
MAKAZA

OSLONAC
MAKAZA



VIJAK ZA
PODEŠAVANJE
VISINE

K-EF-01

K-EF-01

FEO-0201

48

1.75

62

117

117

117

117

117

117

117

117

117

117

117

233

336

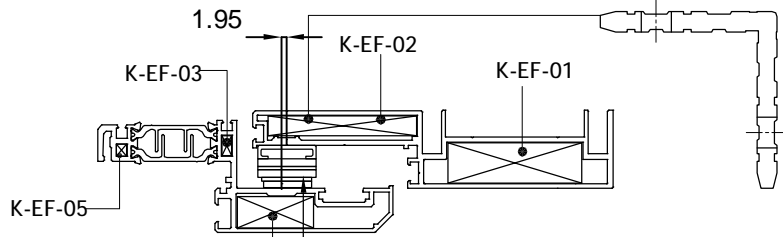
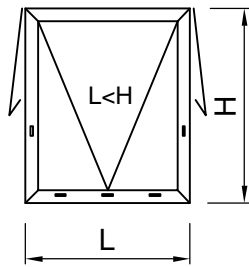
89

38

ZA VENTUSE TEŽINE PREKO 75 kg
NAKON FINOG PODEŠAVANJA UVITI VIJKE 4,2x19 A2 DIN 7504 N (W-3206 1)

NAKON FINOG PODEŠAVANJA UVITI VIJKE 4,2x19 A2 DIN 7504 N (W-3206 1)

- BUŠENJE -
MAKAZE BEZ KLIZAČA



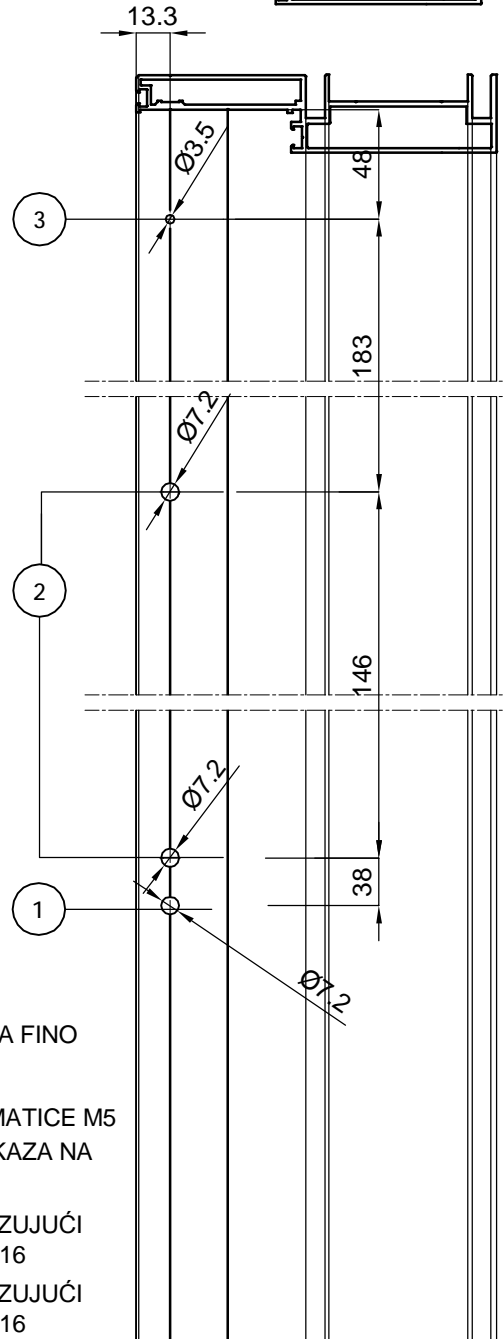
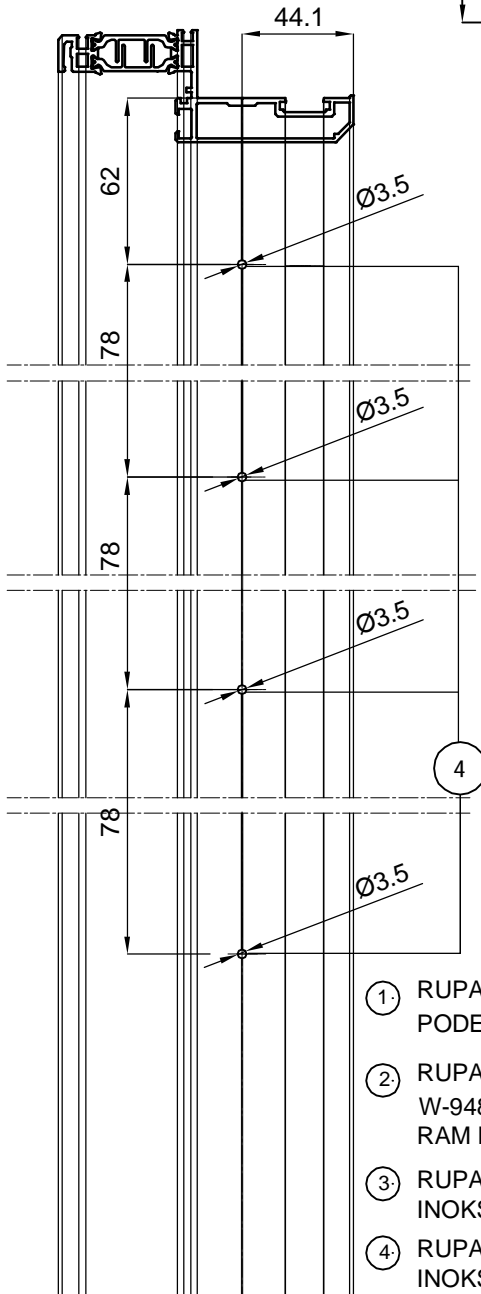
MAKAZE IDU U POZICIJU "B" KAD JE ZAKJUČAVANJE
IZNAD DONJE TOČKE MAKAZA

KRILO VENTUSA

RAM VENTUSA

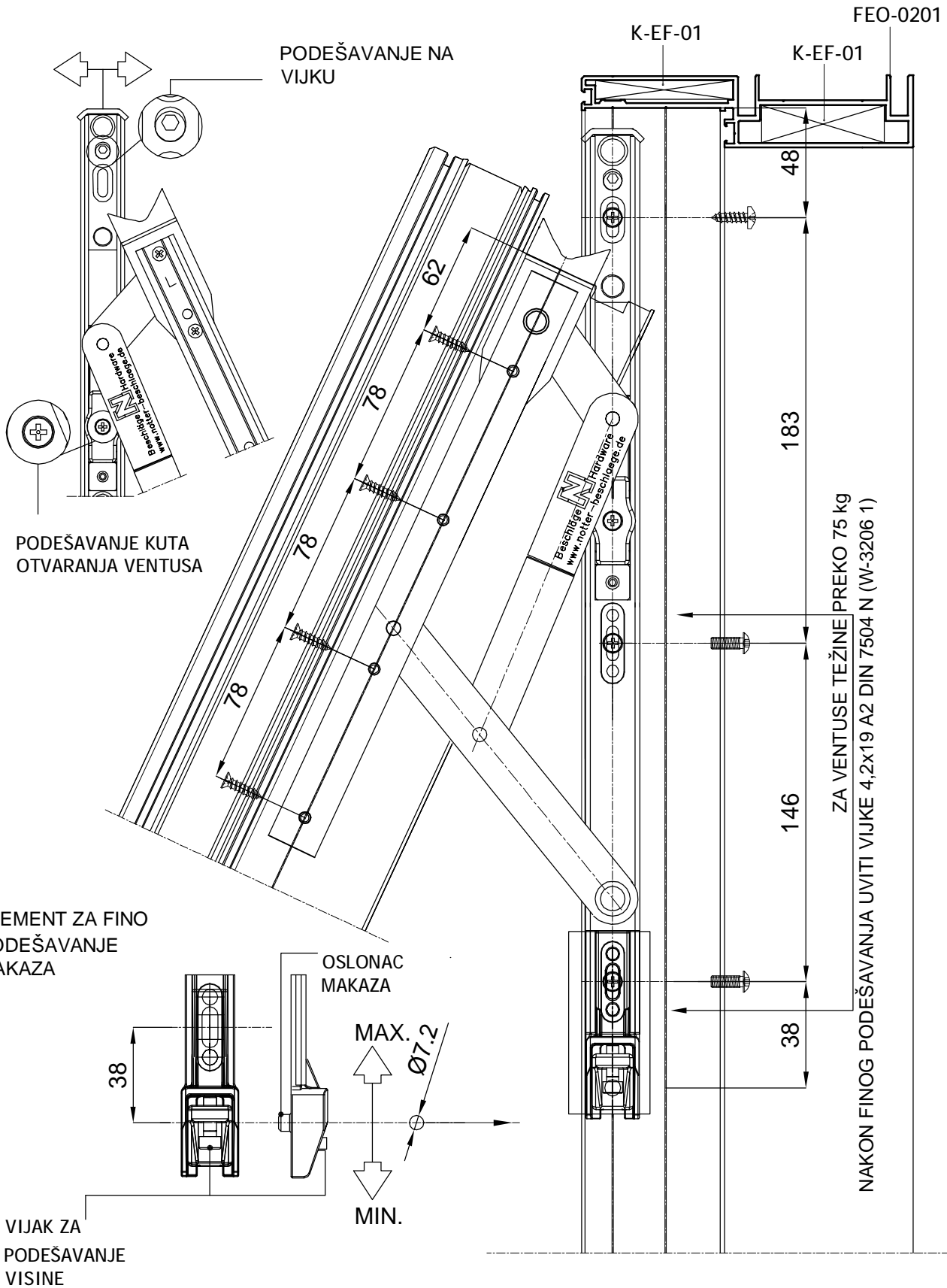
FT-0136

FEO-0201

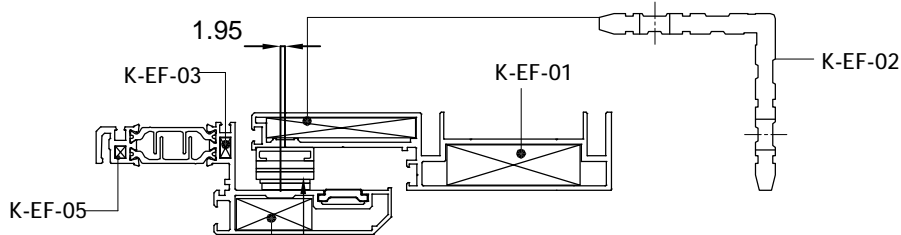
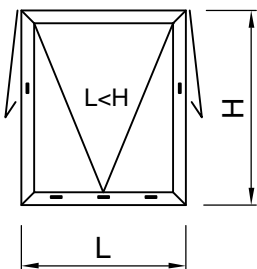


- ① RUPA Ø7.2-ZA ELEMENT ZA FINO PODEŠAVANJE
- ② RUPA Ø7.2 - ZA ZAKIVNE MATICE M5 W-9487/ ZA MONTAŽU MAKAZA NA RAM FT-0126
- ③ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7981 4.2x16
- ④ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7982 4.2x16

- FIKSIRANJE -
MAKAZE BEZ KLIZAČA

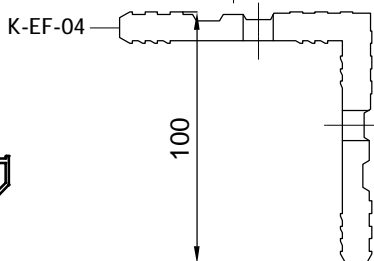
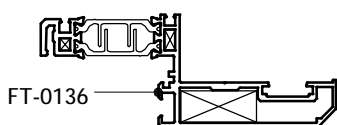


- BUŠENJE -
MAKAZE BEZ KLIZAČA

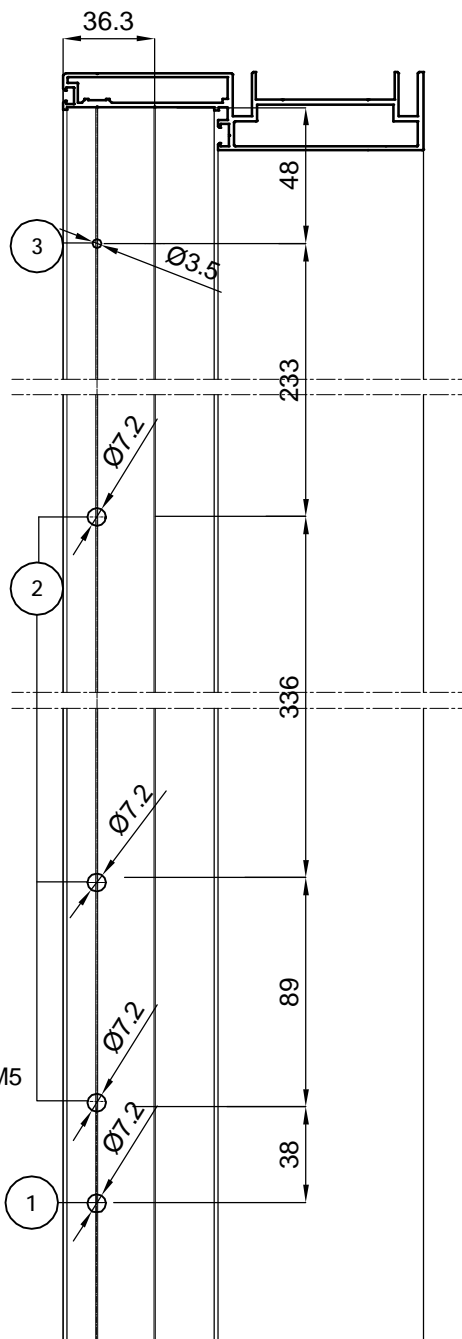
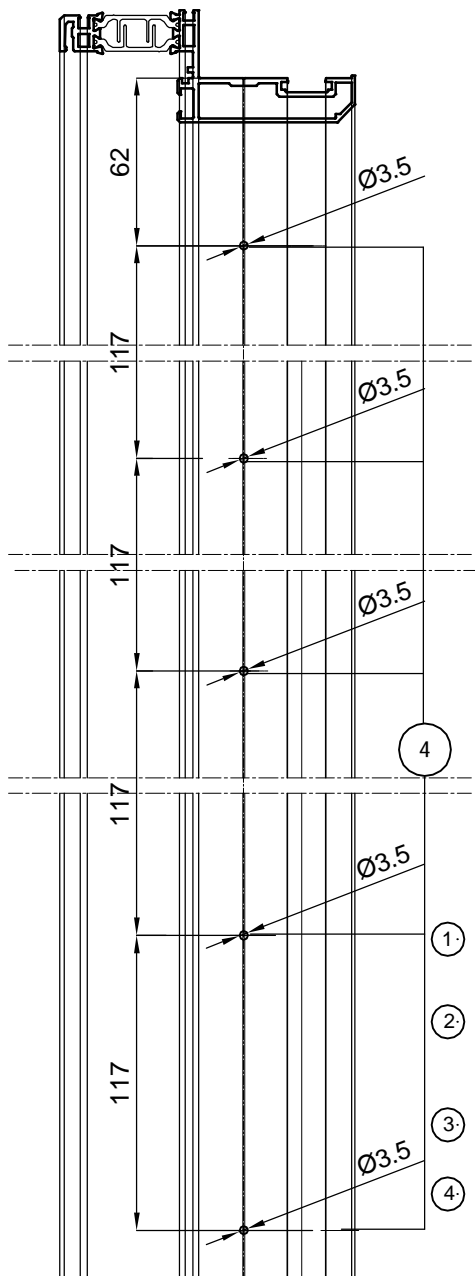
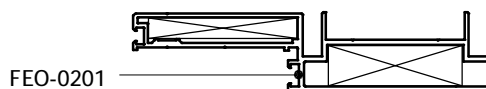


MAKAZE IDU U POZICIJU "B" KAD JE
ZAKLJUČAVANJE IZNAD DONJE TOČKE MAKAZA

KRILO VENTUSA

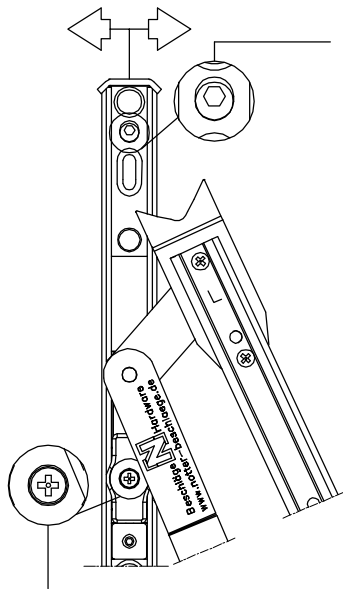


RAM VENTUSA



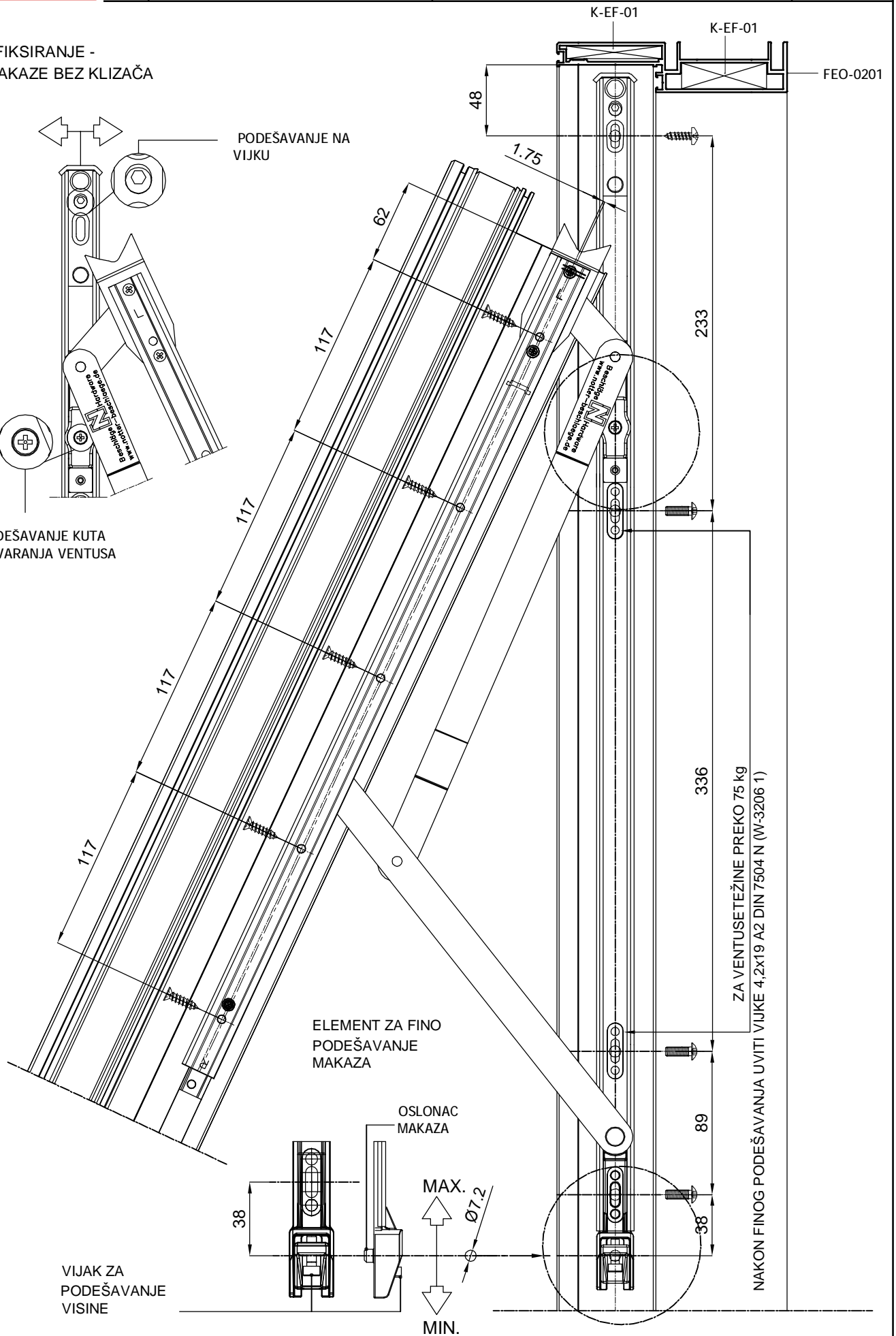
- ① RUPA Ø7.2-ZA ELEMENT ZA FINO PODEŠAVANJE
- ② RUPA Ø7.2 - ZA ZAKIVNE MATICE M5 W-9487/ ZA MONTAŽU MAKAZA NA RAM FT-0126
- ③ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7981 4.2x16
- ④ RUPA Ø3.5 - ZA SAMOUREZUJUĆI INOKS VIJAK DIN 7982 4.2x16

- FIKSIRANJE -
MAKAZE BEZ KLIZAČA



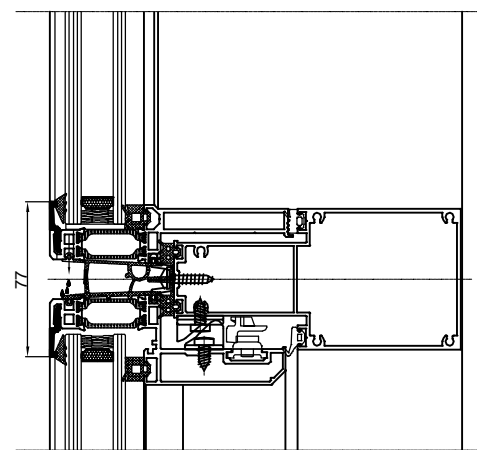
PODEŠAVANJE NA
VIJKU

PODEŠAVANJE KUTA
OTVARANJA VENTUSA

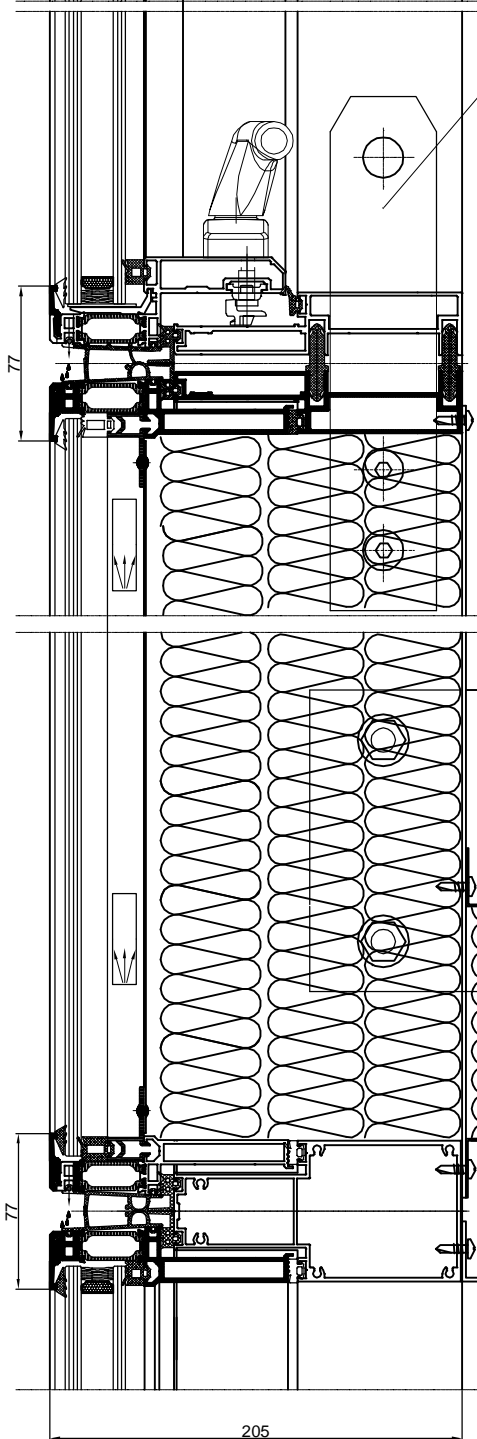


TIP A - FASADA SA FIXNIM I
OTVARAJUĆIM ELEMENTIMA

ELEMENT FASADE-2-



ELEMENT FASADE-1-



ČELIČNI UMETAK
ZA NOŠENJE I CENTRIRANJE

NOSIVI KUTNIK

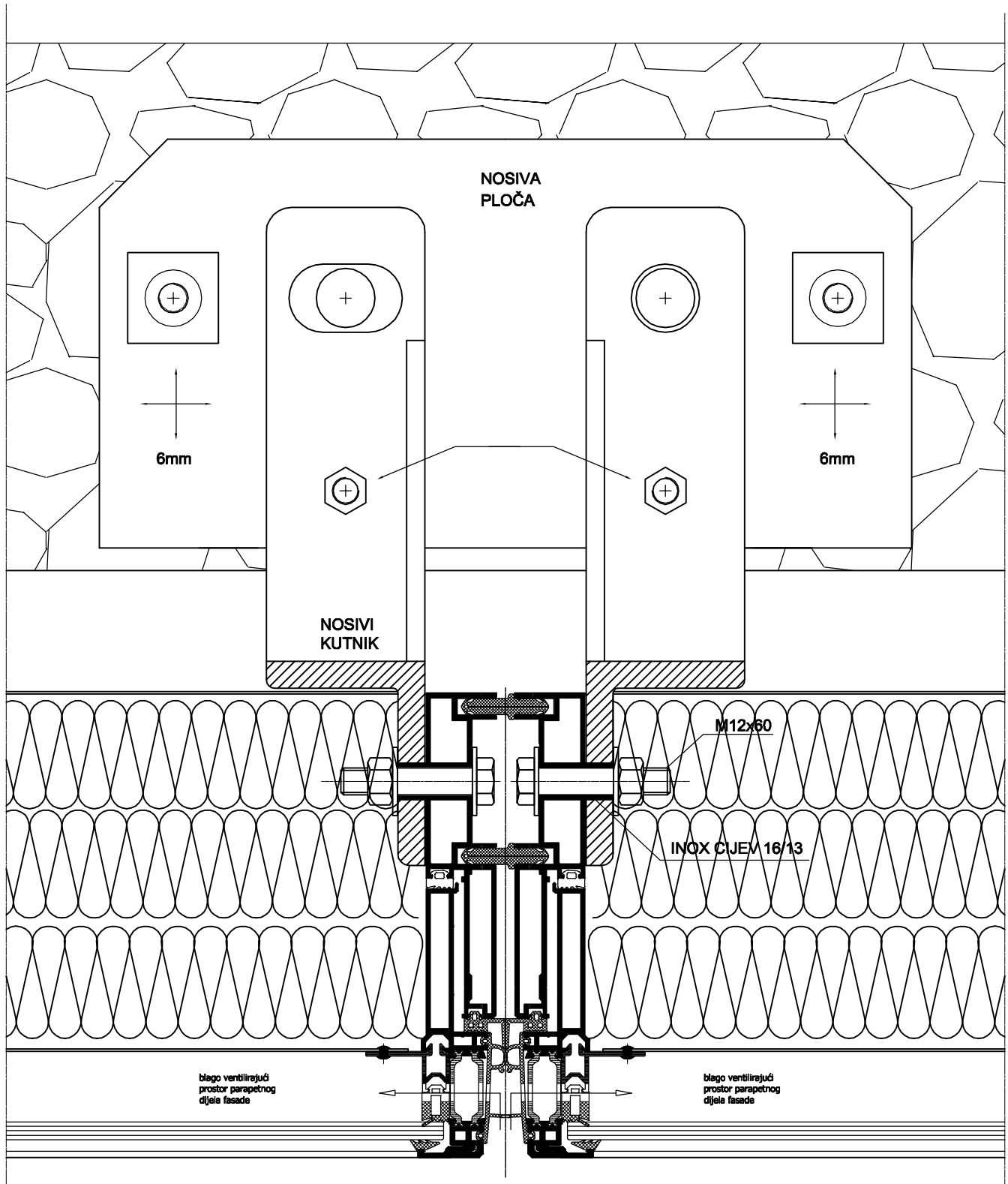
VIJAK ZA PODEŠAVANJE
VISINE

NOSIVA PLOČA
SA TRNOM

PROTUDIMNA BRANA

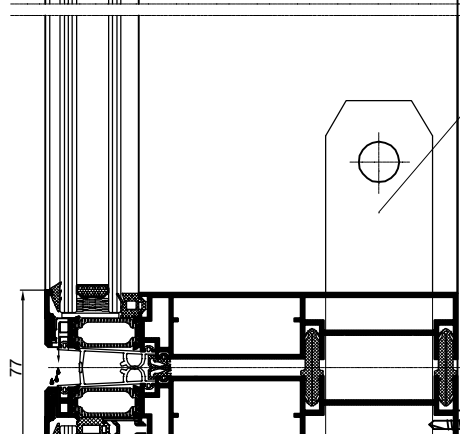
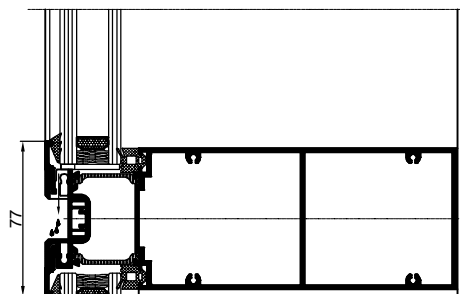
SPUŠTENI STROP

TIP A - FASADA SA FIXNIM I
OTVARAJUĆIM ELEMENTIMA

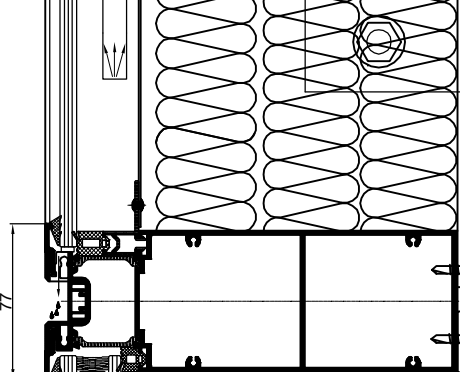
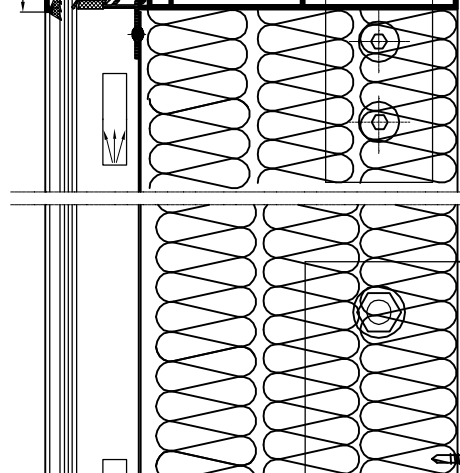


TIP A F - FASADA SA FIXNIM I
OTVARAJUĆIM ELEMENTIMA

ELEMENT FASADE-2-



ELEMENT FASADE-1-



ČELIČNI UMETAK
ZA NOŠENJE I CENTRIRANJE

NOSIVI KUTNIK

VIJAK ZA PODEŠAVANJE
VISINE

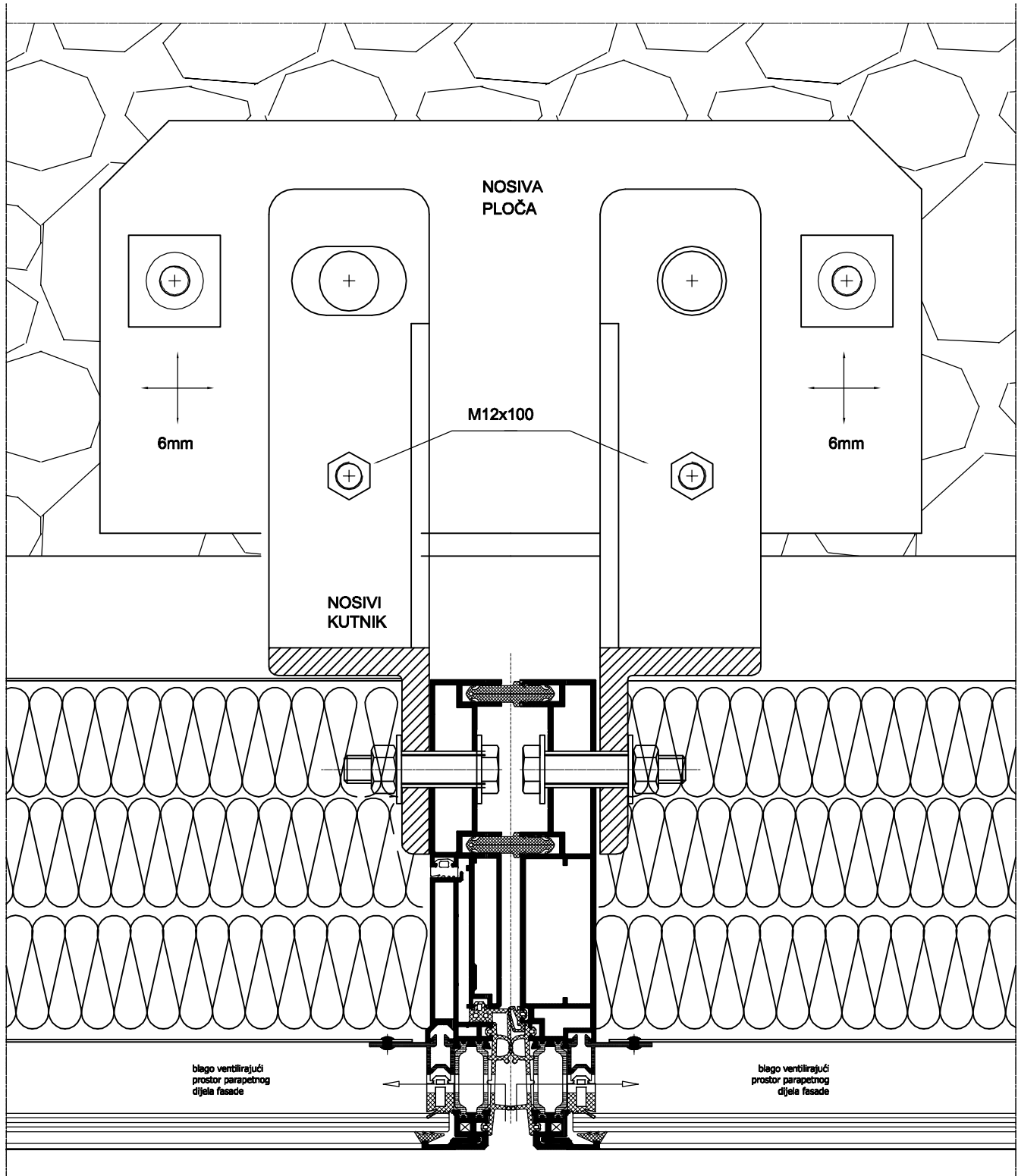
NOSIVA PLOČA
SA TRNOM

PROTUDIMNA BRANA

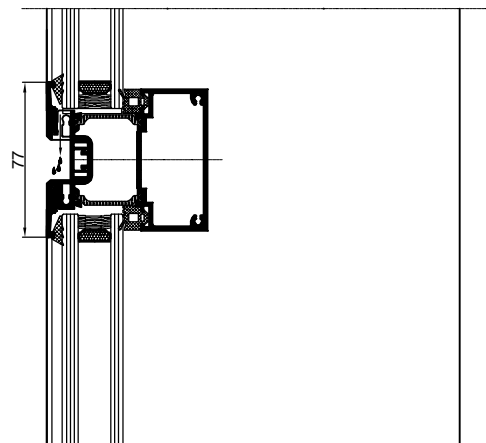
SPUŠTENI STROP

205

TIP A F - FASADA SA FIXNIM I
OTVARAJUĆIM ELEMENTIMA

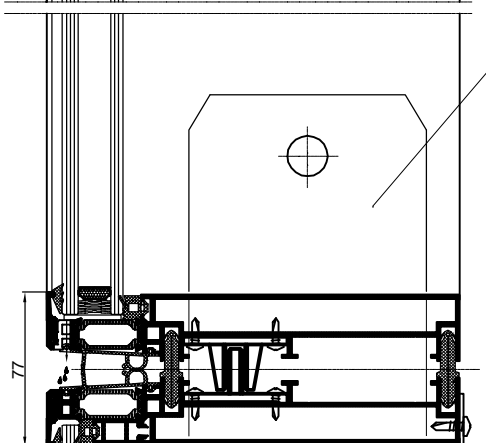


ELEMENT FASADE-2-



TIP BF - FASADA SA FIXNIM ELEMENTIMA
(bez otvarajućih elemenata)

ČELIČNI UMETAK
ZA NOŠENJE I CENTRIRANJE

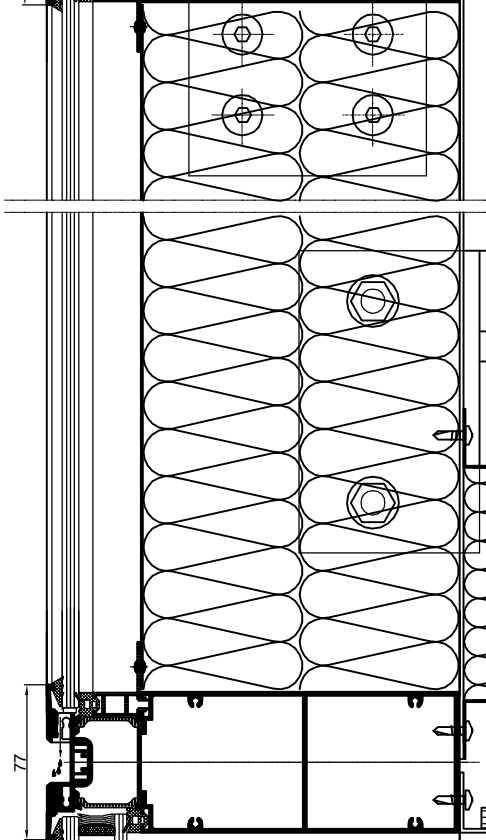


NOSIVI KUTNIK

VIJAK ZA PODEŠAVANJE
VISINE

NOSIVA PLOČA
SA TRNOM

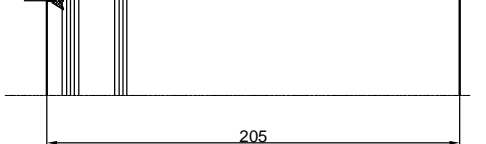
ELEMENT FASADE-1-



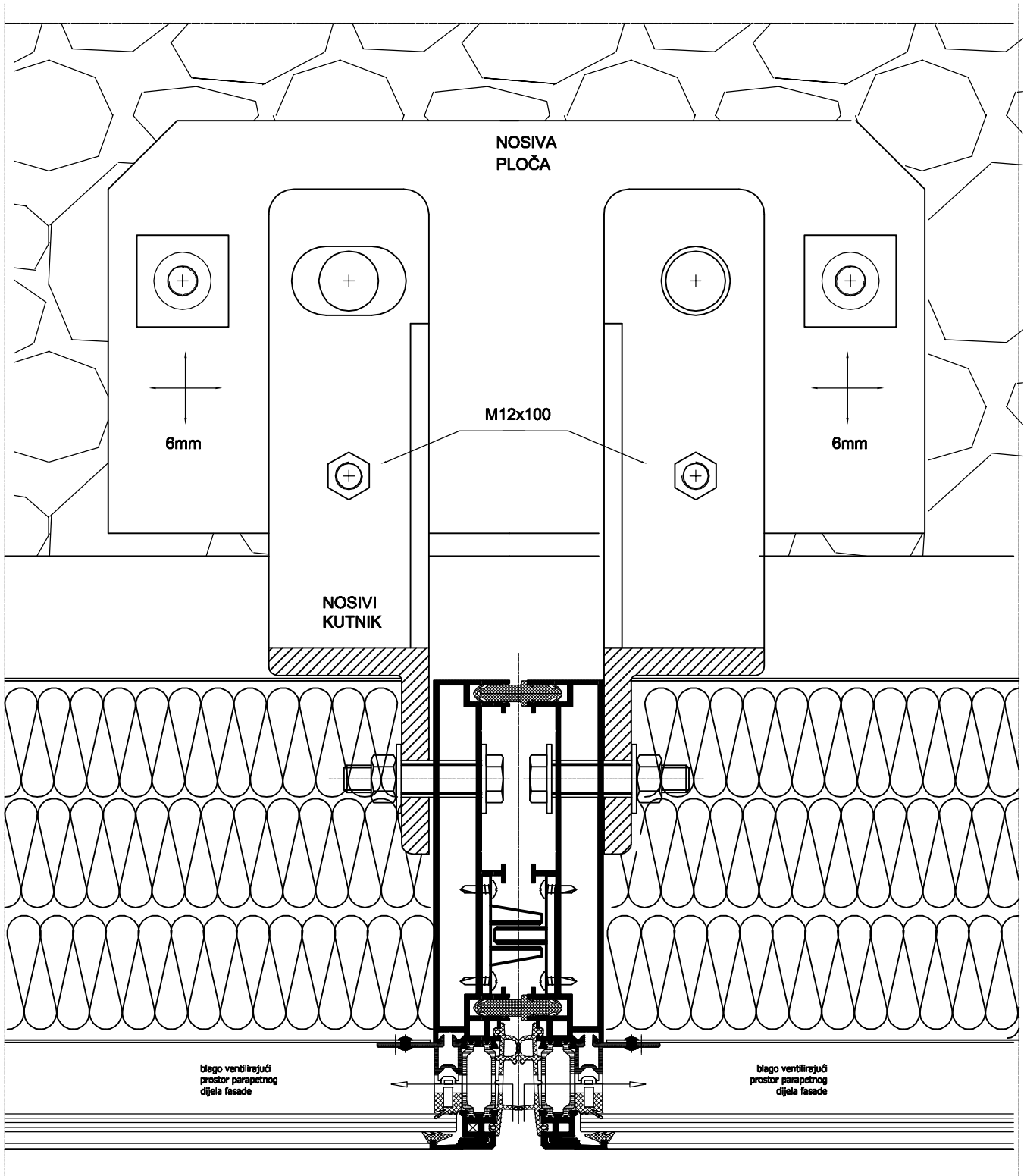
PROTUDIMNA BRANA

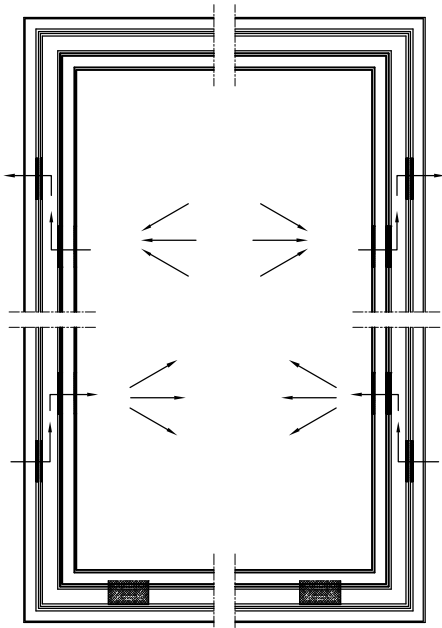
SPUŠTENI STROP

205

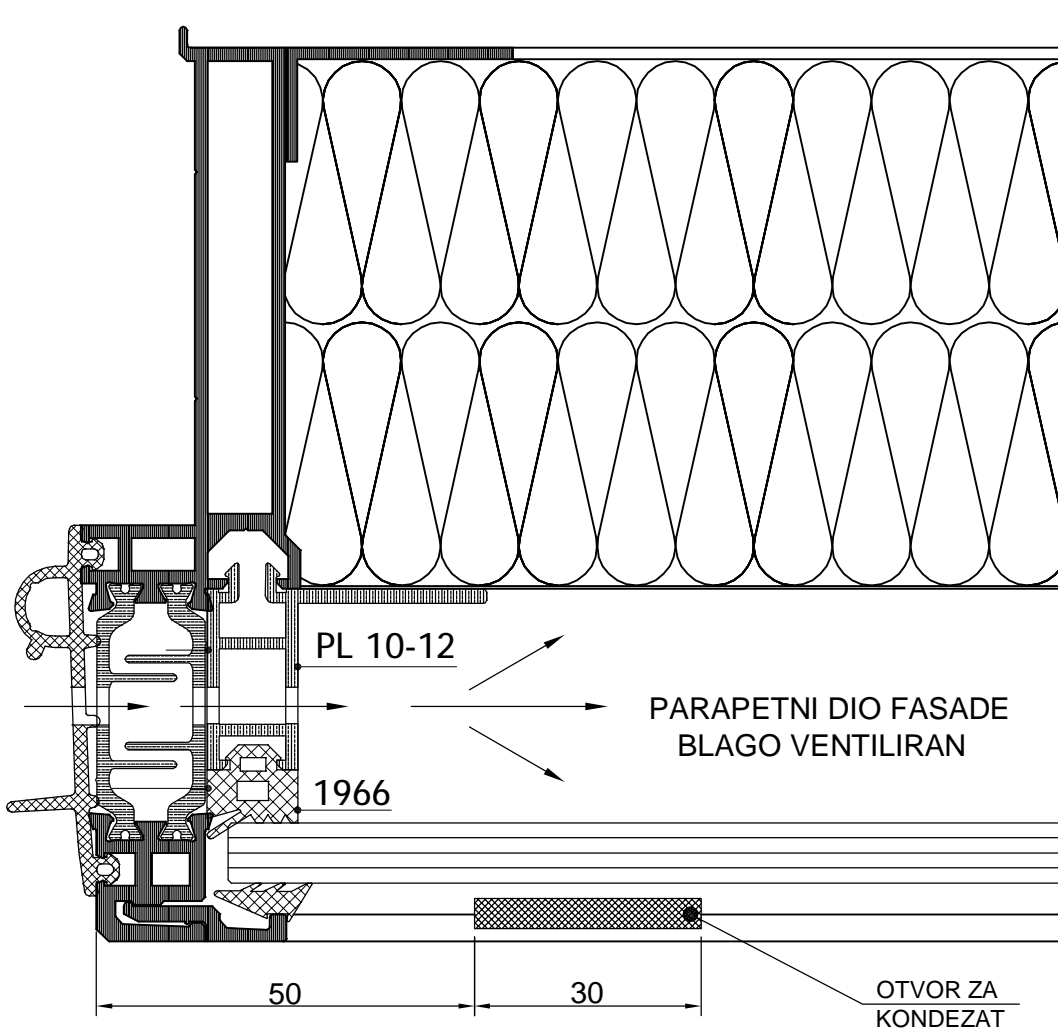


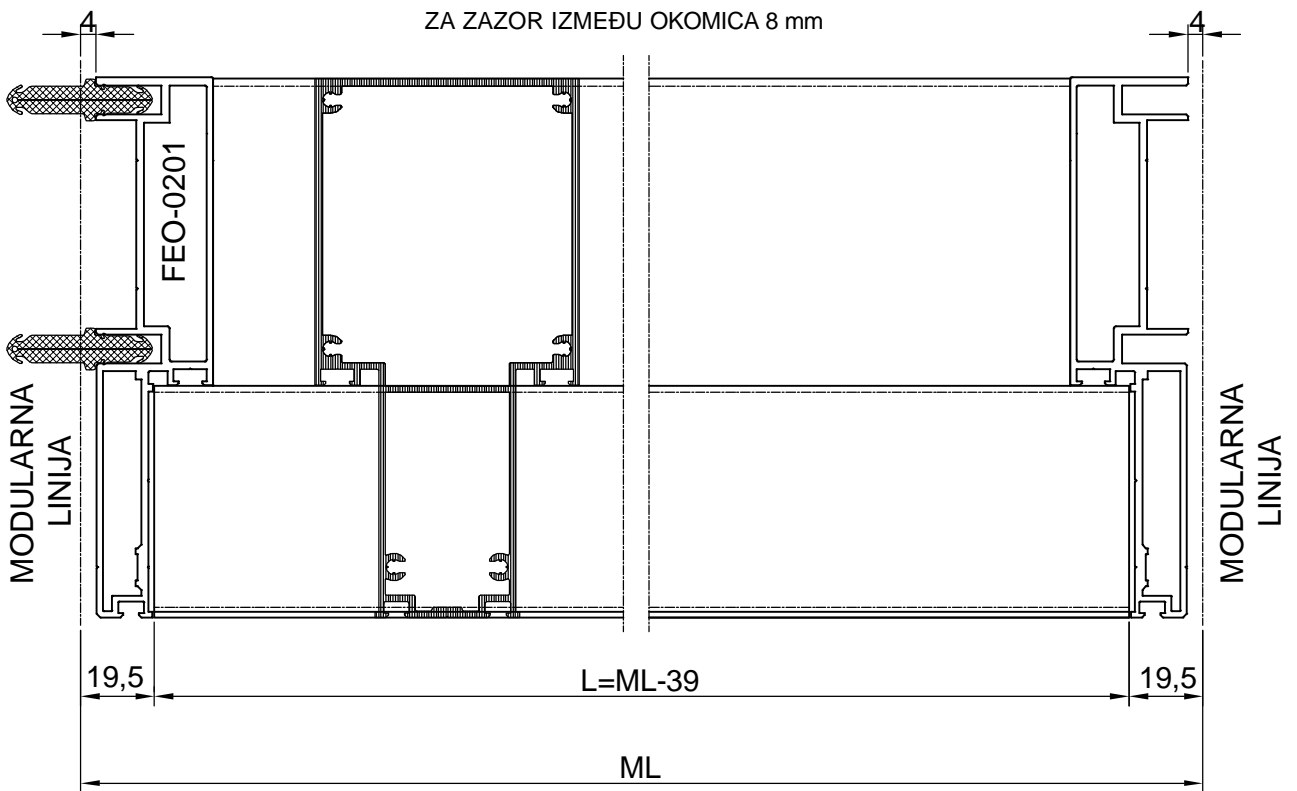
**TIP BF - FASADA SA FIXNIM ELEMENTIMA
(bez otvarajućih elemenata)**

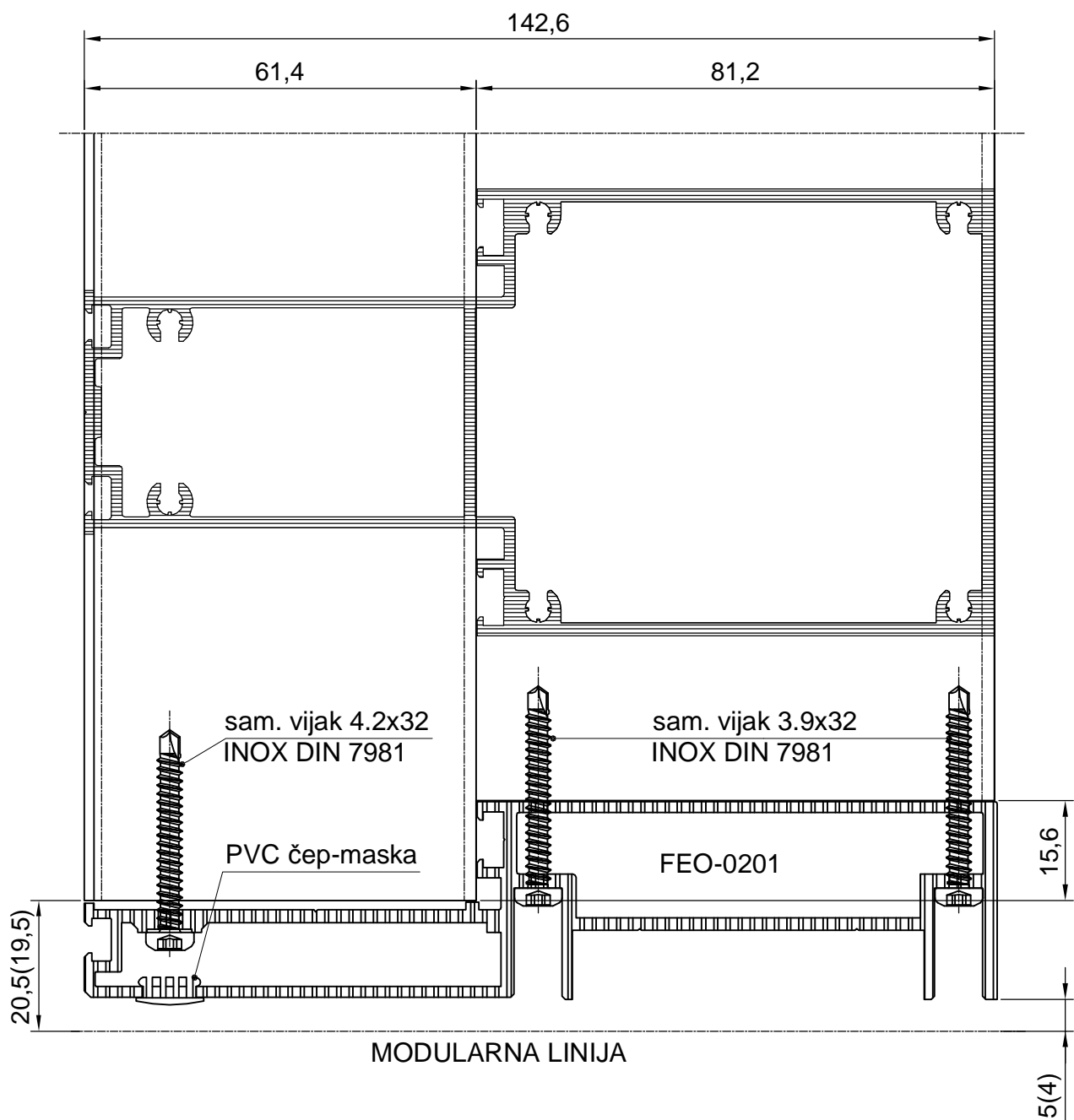
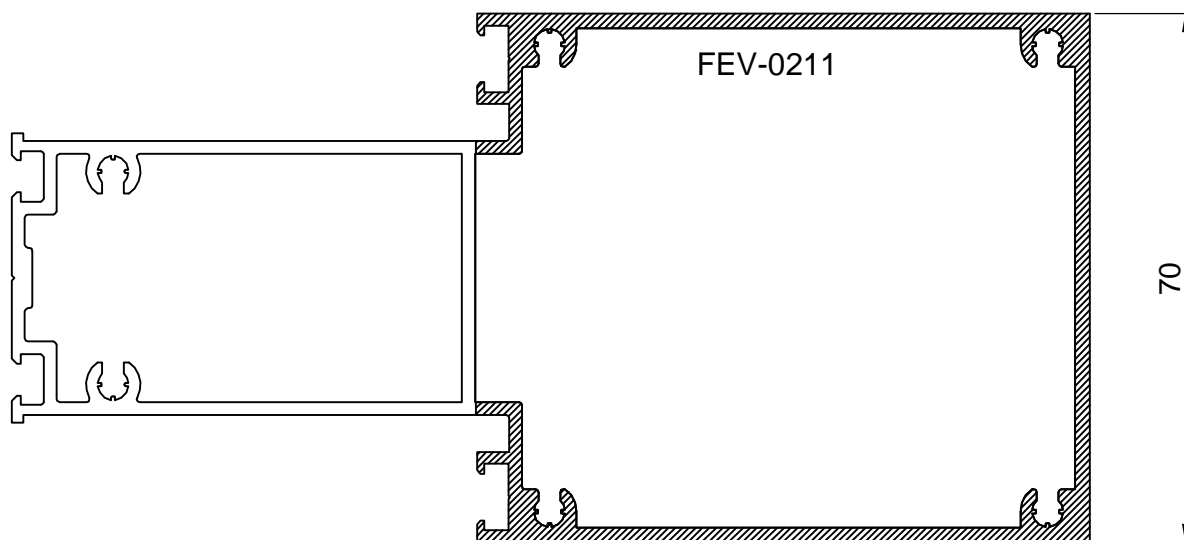




DETALJ "A"







OKOMICA FEO-0202

PREČKA FEV-0212

02781/S

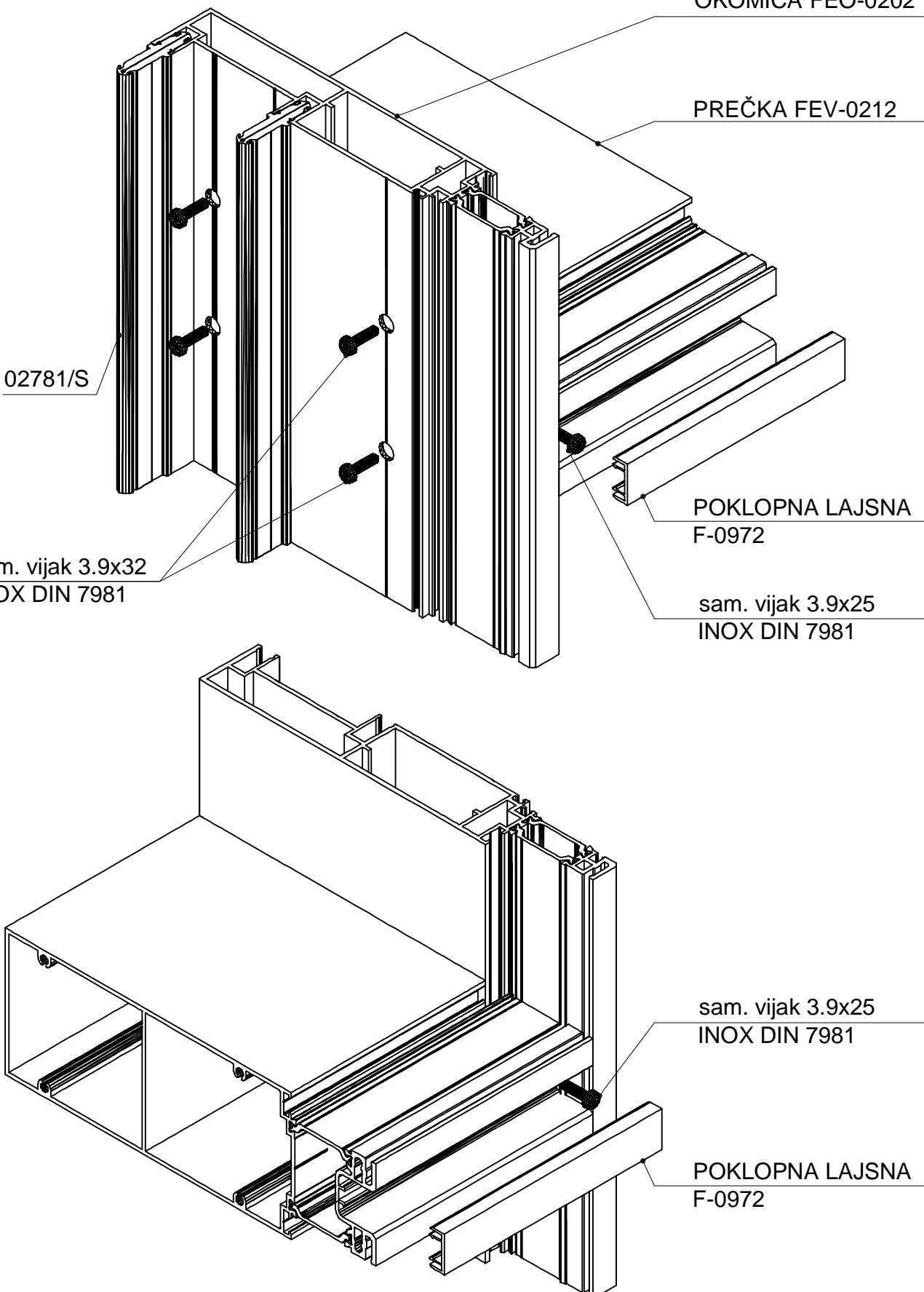
POKLOPNA LAJSNA
F-0972

sam. vijak 3.9x32
INOX DIN 7981

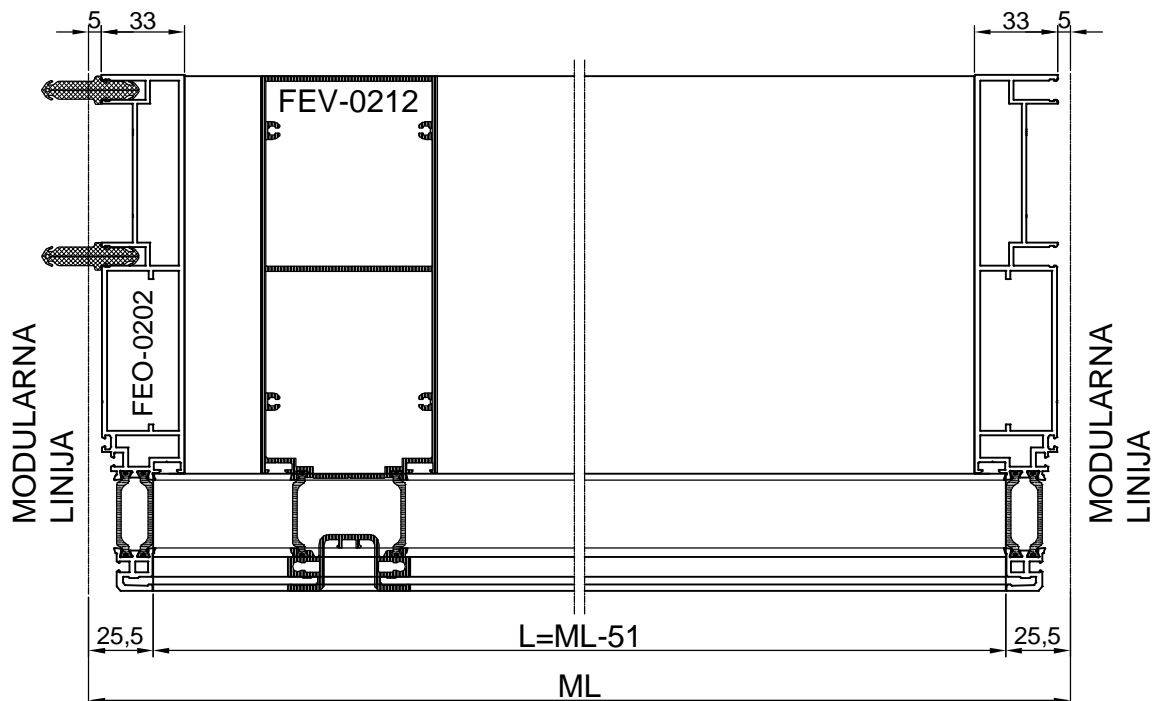
sam. vijak 3.9x25
INOX DIN 7981

sam. vijak 3.9x25
INOX DIN 7981

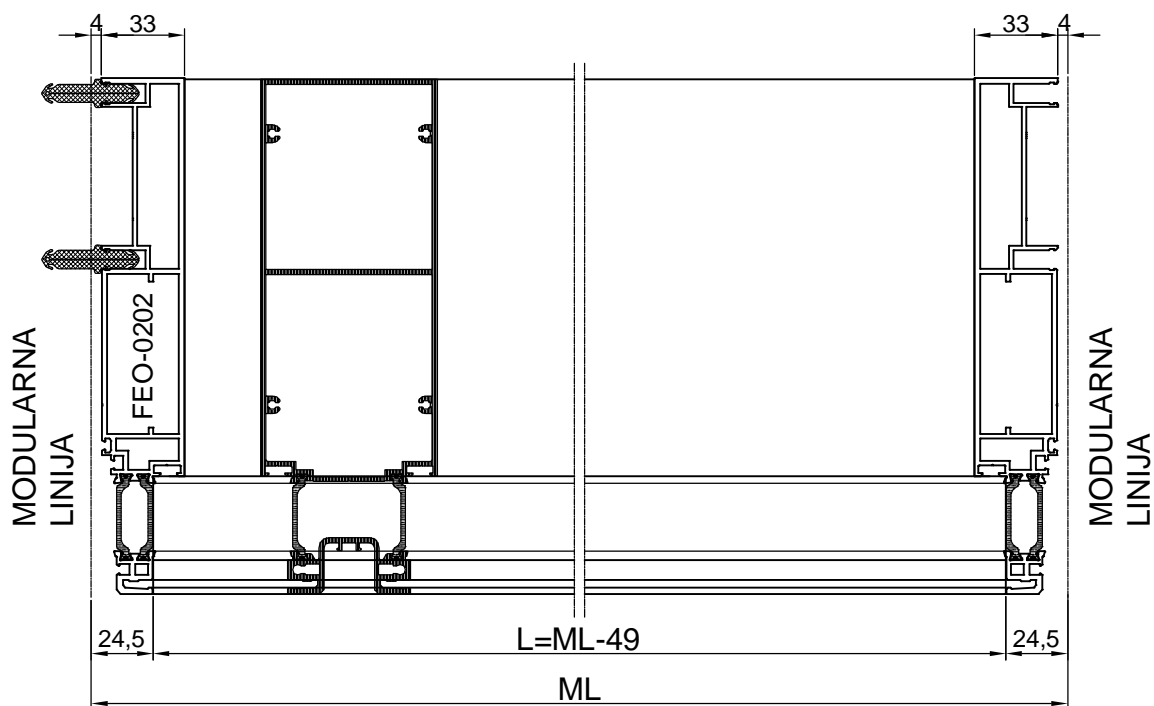
POKLOPNA LAJSNA
F-0972

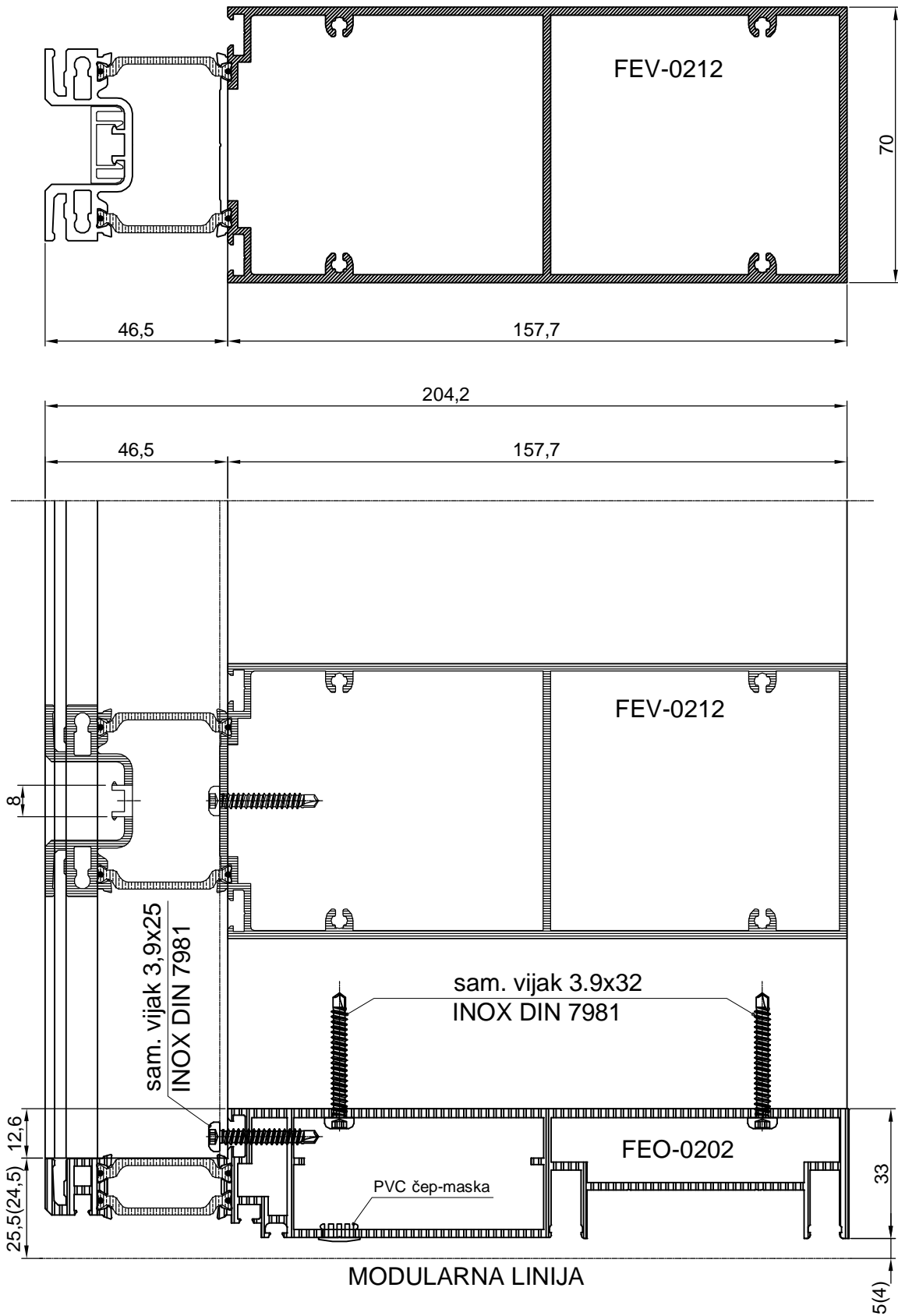


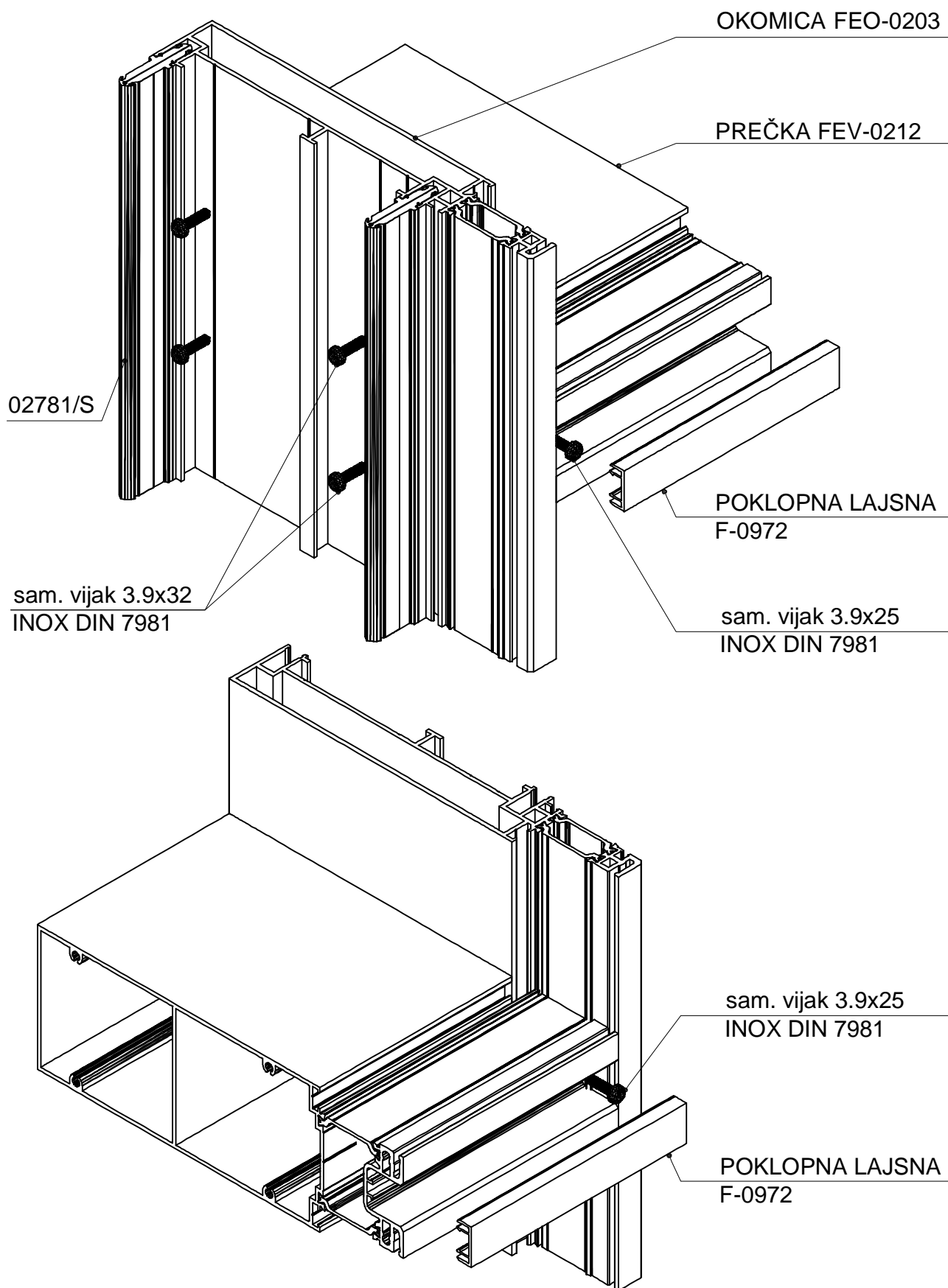
ZA ZAZOR IZMEĐU OKOMICA 10 mm



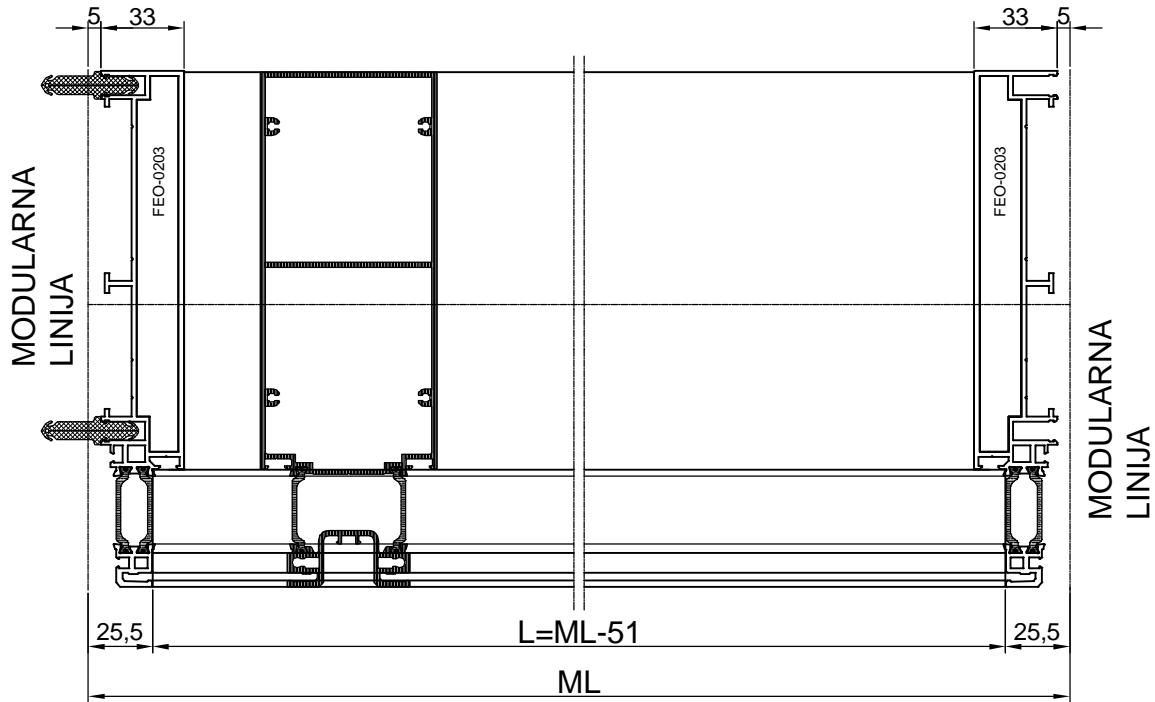
ZA ZAZOR IZMEĐU OKOMICA 8 mm



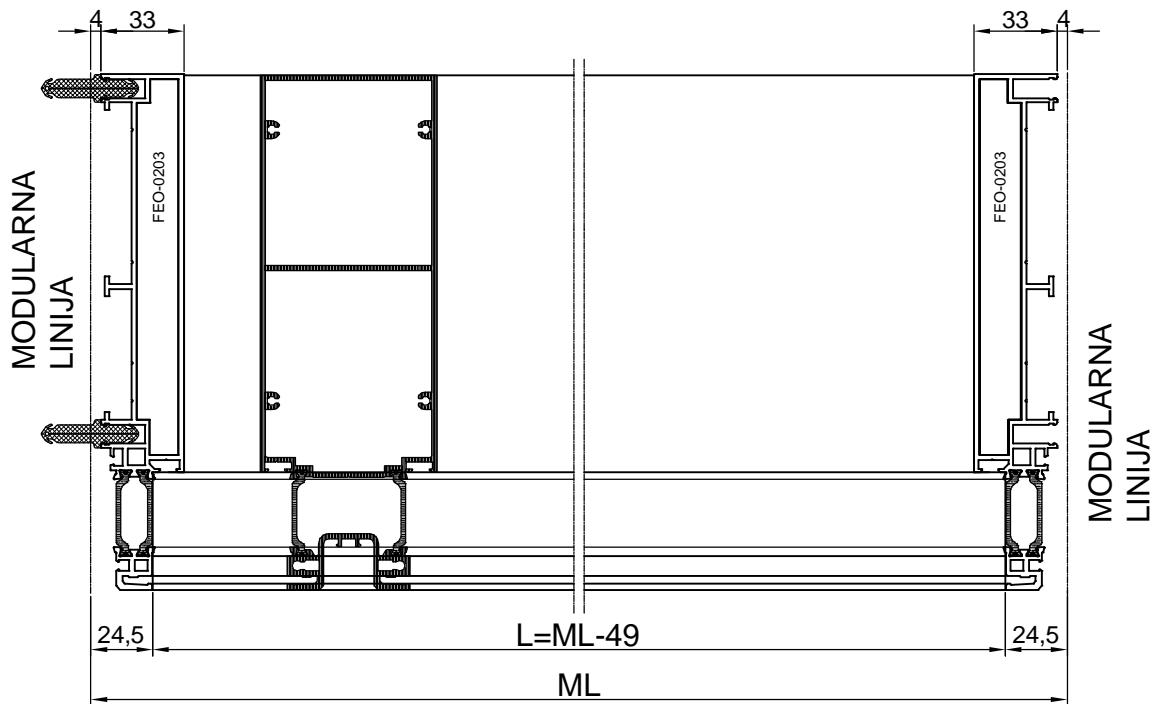




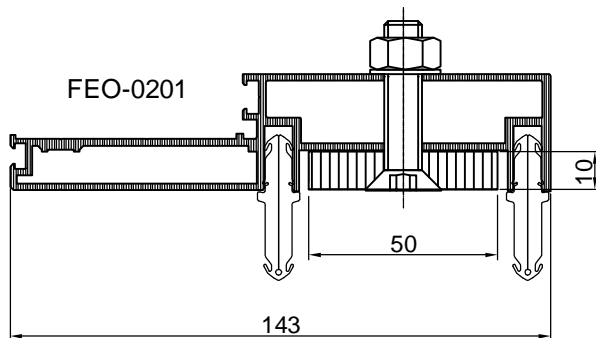
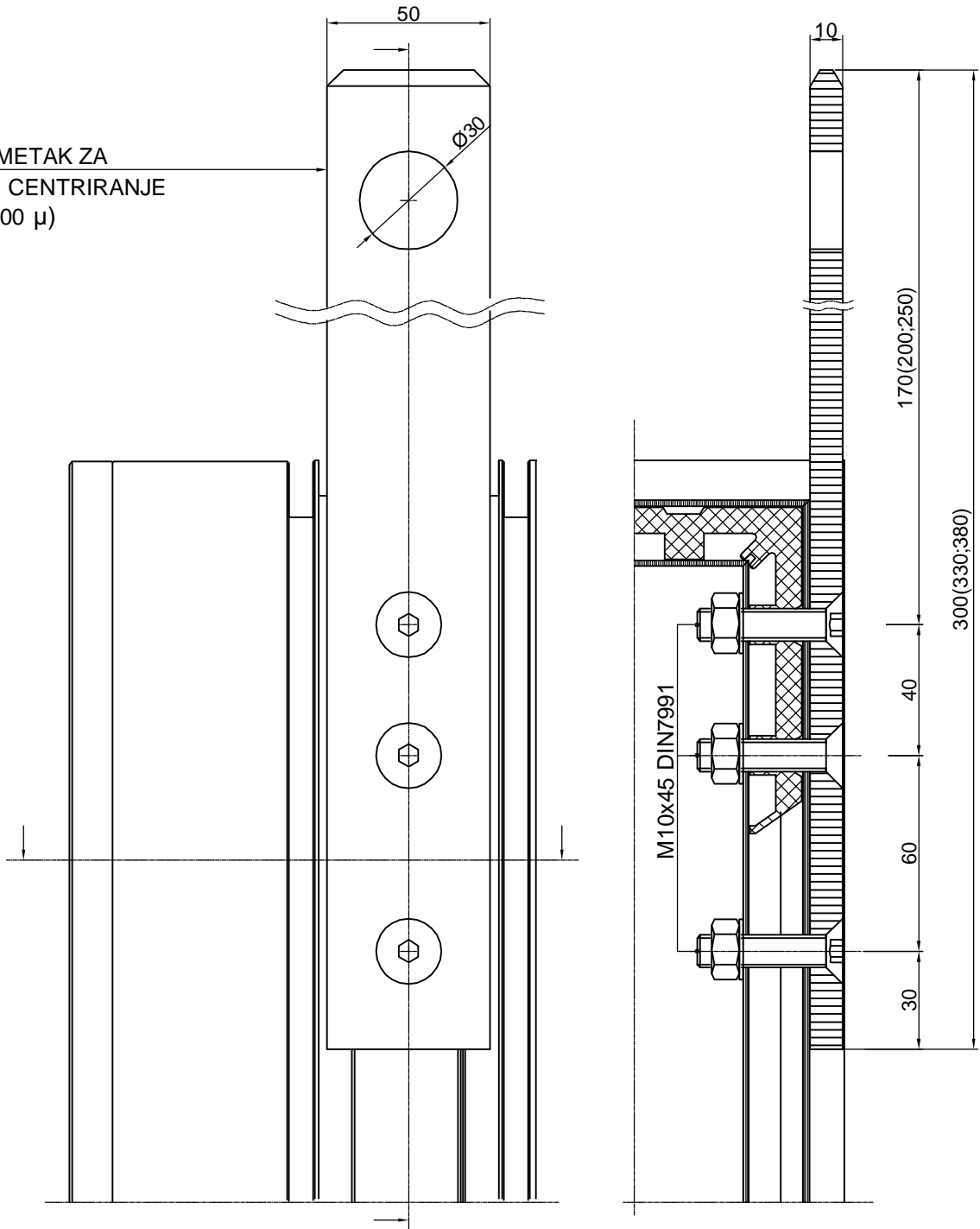
ZA ZAZOR IZMEĐU OKOMICA 10 mm



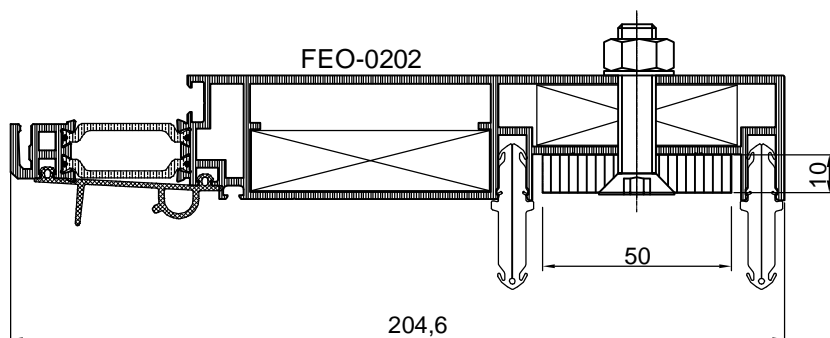
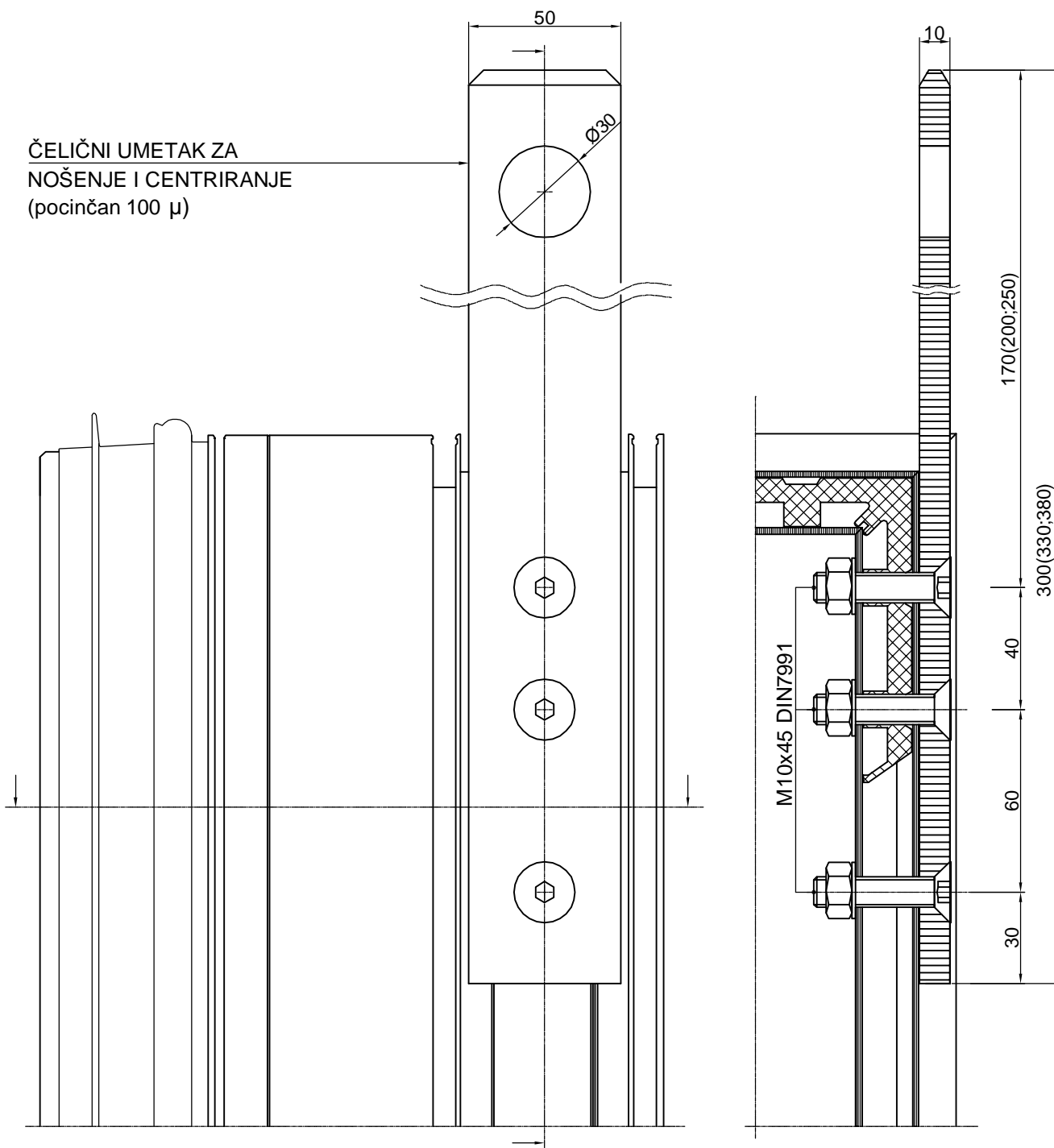
ZA ZAZOR IZMEĐU OKOMICA 8 mm



ČELIČNI UMETAK ZA
NOŠENJE I CENTRIRANJE
(pocinčan 100 μ)



ČELIČNI UMETAK ZA
NOŠENJE I CENTRIRANJE
(pocinčan 100 μ)



ČELIČNI UMETAK ZA
NOŠENJE I CENTRIRANJE
(pocinčan 100 μ)

