

# SADRŽAJ

1. STANDARDNE DIMENZIJE PROZORA I MOGUĆNOSTI OTVARANJA
2. PROFILI ZA PVC STOLARIJU I NJIHOVE DIMENZIJE
3. MOMENT INERCIJE ZA X I Y OSU, POVRŠINA POPREČNOG PRESEKA
4. KONSTRUKTIVNE KOMBINACIJE, SEČENJE PROFILA, DIMENZIJE STAKLA
5. MOGUĆNOST SPAJANJA ELEMENATA
6. OJAČANJE PROFILA
7. ZAPTIVAČI
8. KAJLOVANJE
9. UGRADNJA
10. OKOVI
11. POMOĆNI PROFILI, LAMPERIJA, GARNIŠLE
12. ROLETNE
13. KOMARNICI
14. HARMONIKA VRATA I TUŠ KABINE

# 1. STANDARDNE DIMENZIJE PROZORA I MOGUĆNOSTI OTVARANJA

Pri određivanju položaja prozora kao i kod određivanja veličine treba voditi računa o:

- aktivnosti koja se odvija u prostoru
- provetravanju
- toplotnim dobitcima
- osvetljenju

Veće dimenzije prozora, koje nisu predviđene kao elementi solarnog sistema donose zimi samo veće toplotne gubitke, s obzirom na mnogo veći koeficijent prolaza toplote u odnosu na zid.

Pri određivanju veličine prozora mora se voditi računa o vrsti provetravanja koja će biti osigurana. Kod poprečnog provetravanja promena veličine jednog otvora ne utiče bitno na brzinu vazduha, naročito ako se povećava ulazni otvor, dok istovremeno povećanje oba otvora dovodi do povećanja brzine vazduha u prostoru.

Veličina prozora, koji su predviđeni da budu skupljači energije, direktno utiču na količinu energije koja se na taj način prikuplja. Njihovu površinu treba odrediti tačnim proračunima, jer prevelike kao i premale zastakljene površine izazivaju neracionalnost primenjenog sistema.

Tako, premali prozori ne omogućavaju prikupljanje dovoljne količine energije, a preveliki dovode do naglog pregrevavanja prostora u sunčanim razdobljima, pa su korisnici često primorani otvarati prozore ili koristiti zastore da postignu komforne uslove u stanu.

Pomicanjem prozora po dubini može se podesiti razdoblje kada sunčevi zraci prodiru u prostor. Bočni zidovi i nadprozornik tada igraju ulogu unakrsnog zamračenja.

Najčešće preporučena visina prozora je 140 cm, a balkonskih vrata 220 cm.

Kod fasadnih prozora i vrata omogućeno je otvaranje (obrtnje) oko vertikalne ose i delimično nagnjanje (kipovanje) oko horizontalne ose. Otvaranje je prema unutra za sve zemlje EU, osim Engleske.

Kod ulaznih vrata koje se primenjuju kod javnih objekata, otvaranje vrata je isključivo prema vani.

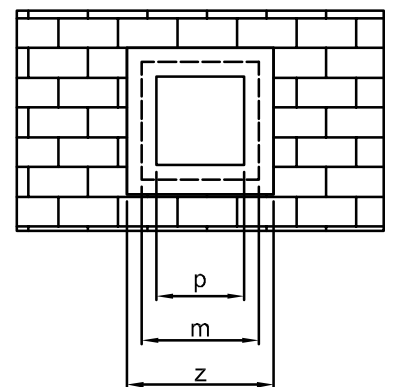
Osnovno pravilo za definiciju levih i desnih prozora je sledeće:

- iste posmatrati iznutra jer je prema prostoriji otvaranje
- ako su šarke na levoj strani (levi prozor)
- ako su šarke na desnoj strani (desni prozor)

# STANDARDNE DIMENZIJE

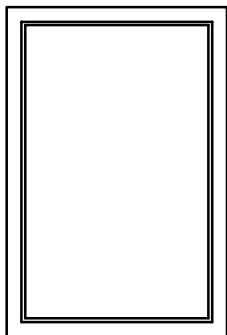
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	m	60	80	100	121	120dk	140	140dk	160ss	180ss	200ss	
	p	59	79	99	119	119	139	139	159	179	199	
61	60											
81	80											
91	90											
101	100											
121	120											
141	140											
211	210											
221	220											
PROZORI I BALKONSKA VRATA												

	z	221	241	261	
	m	220	240	260	
	p	219	239	259	
221	220				
KLIZNA VRATA					

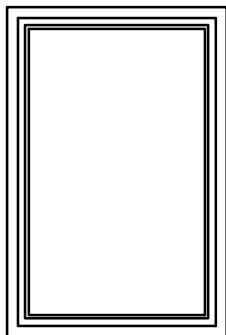


z - zidarske mere  
 m - modularne mere  
 p - proizvodne mere

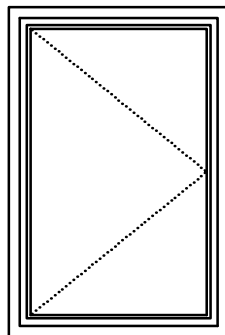
# PRIKAZ PROZORA SA MOGUĆNOSTIMA OTVARANJA



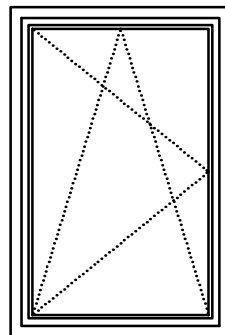
Nepokretan - fiks



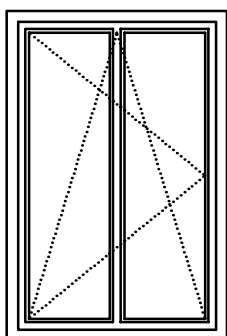
Nepokretan - fiks sa krilom



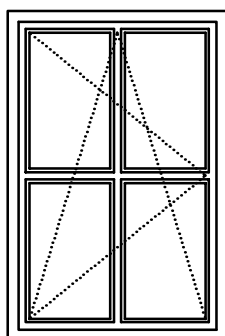
Bočno vertikalno - obrtni



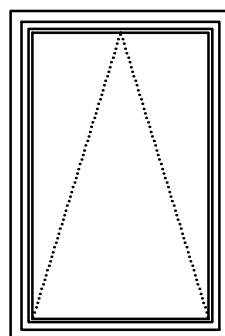
Obrtno - nagibni



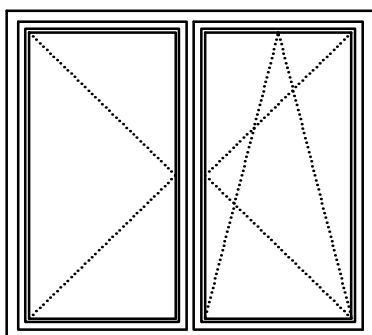
Obrtno - nagibni sa vertikalnom prečkom



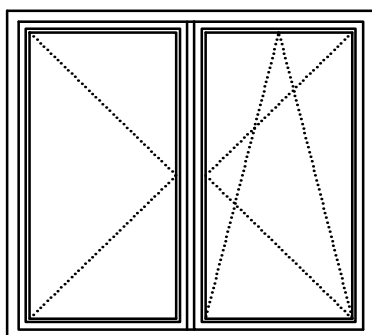
Obrtno - nagibni sa krstastom prečkom



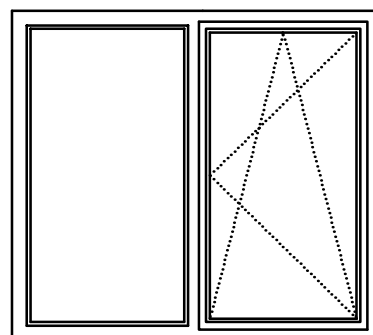
Nagibni



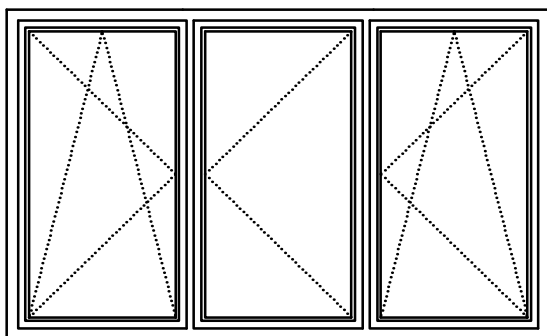
Dvokrilni sa stubom



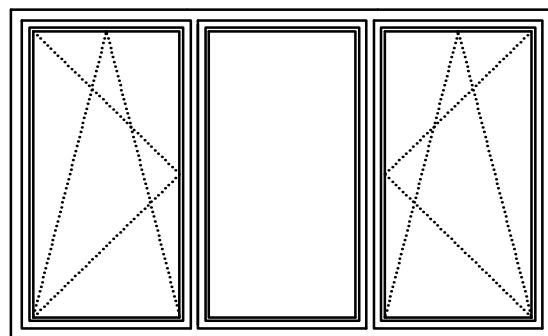
Dvokrilni sa preklapom



Dvodelni, fiks, obrtno - nagibni



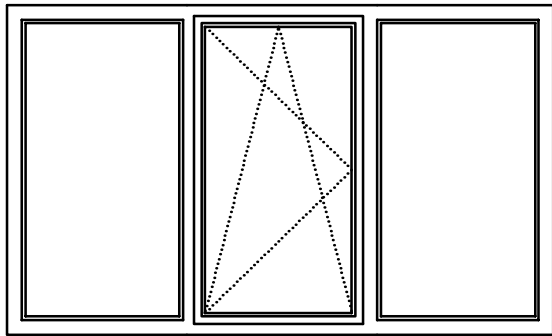
Višedelni, obrtno - nagibni, obrtni, obrtno - nagibni



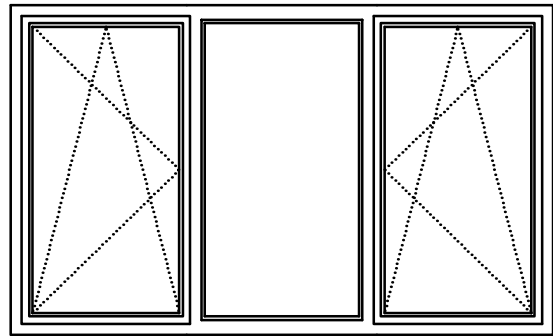
Višedelni, obrtno - nagibni, fiks sa krilom, obrtno - nagibni



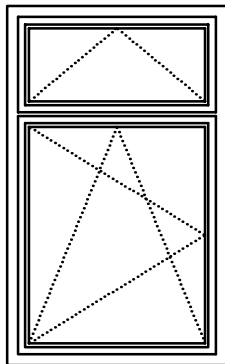
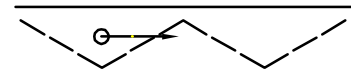
# PRIKAZ PROZORA SA MOGUĆNOSTIMA OTVARANJA



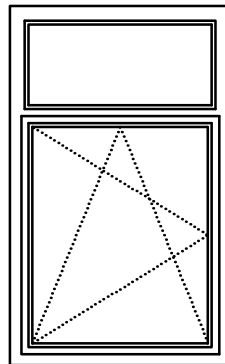
Višedelni, fix, obrtno - nagibni, fix



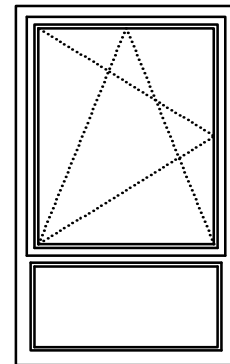
Višedelni, obrtno - nagibni, 'harmonika'



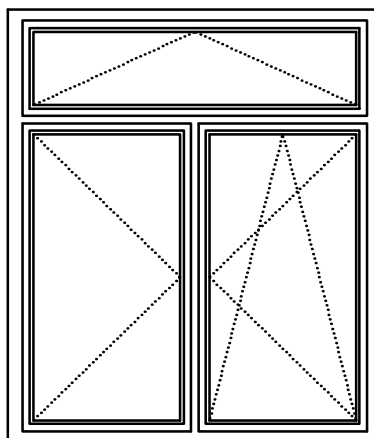
Obrtno - nagibni sa nagibnim nadprozornikom



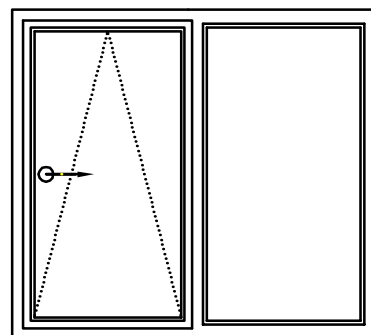
Obrtno - nagibni sa fix nadprozornikom



Obrtno - nagibni sa parapetom od panela

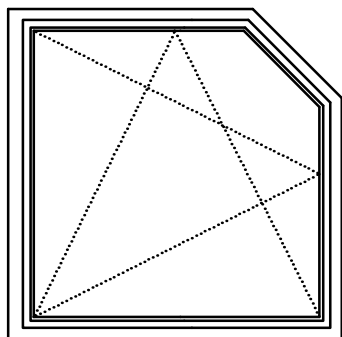


Dvokrilni sa nagibnim nadprozornikom

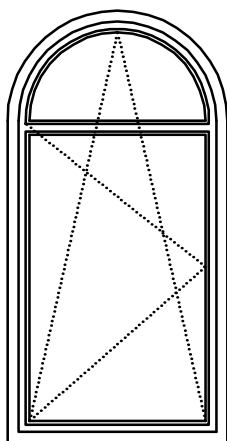


Horizontalno klizajući, nagibni sa fiksom

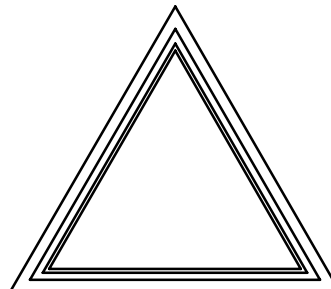
# PRIKAZ PROZORA SA MOGUĆNOSTIMA OTVARANJA



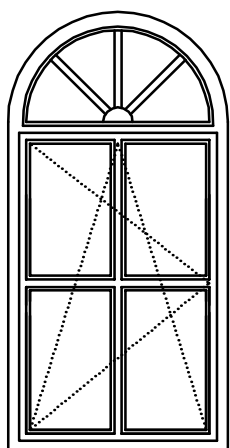
Obrtno - nagibni



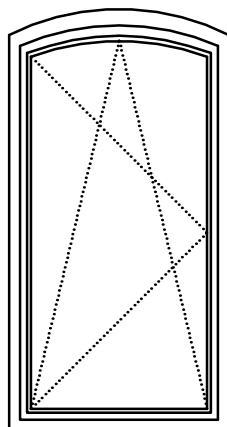
Lučno obrtno - nagibni



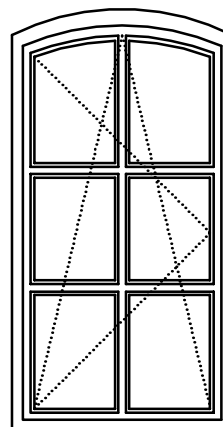
Nepokretan - fiks sa krilom



Lučno obrtno - nagibni sa fiks nadprozornikom

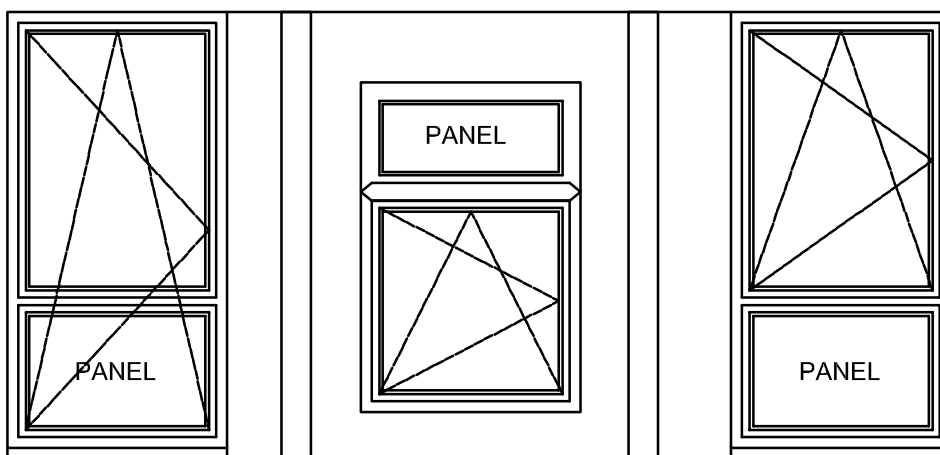


Lučno obrtno - nagibni

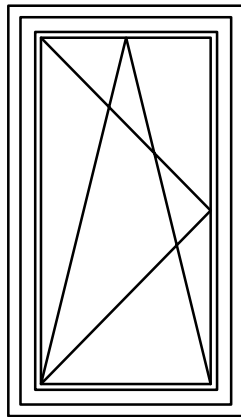


Lučno obrtno - nagibni sa prečkama

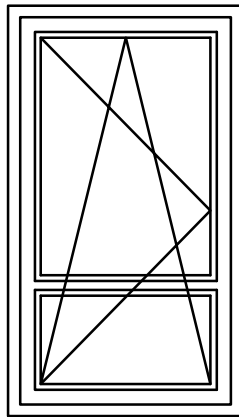
## PANEL



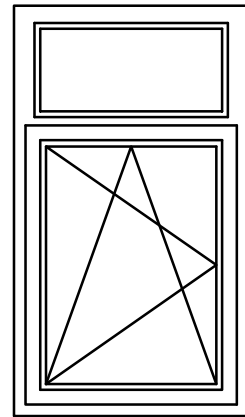
# PRIKAZ BALKONSKIH VRATA SA MOGUĆNOSTIMA OTVARANJA



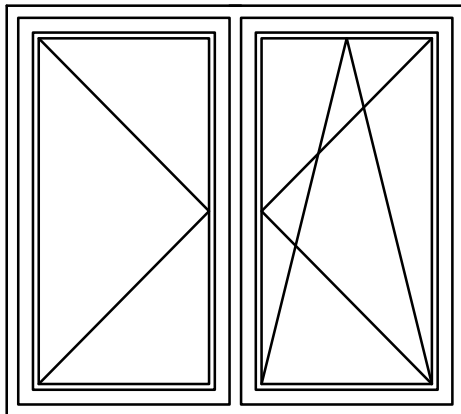
Obrtno - nagibna



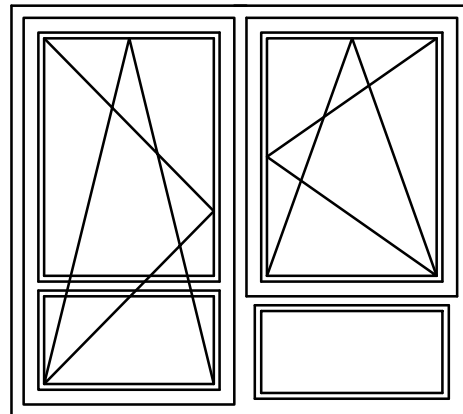
Obrtno - nagibna sa horizontalnom  
prečkom



Obrtno - nagibna sa fiks  
nadprozornikom

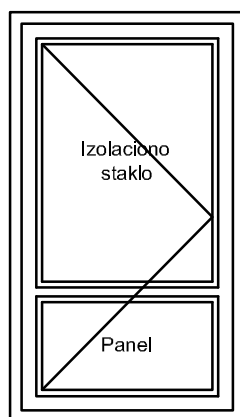


Balkonska vrata, dvodelna sa preklopom

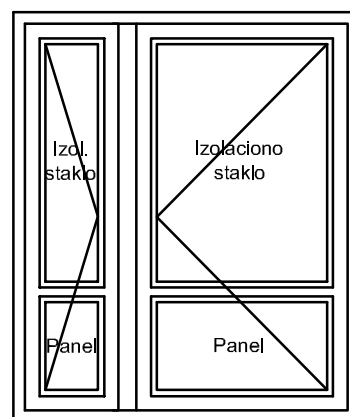


Balkonska vrata sa prozorom i fiks parapetom

# PRIKAZ ULAZNIH VRATA SA MOGUĆNOSTI OTVARANJA



Jednokrilna vrata



Dvokrilna vrata

## 2. PROFILI ZA PVC STOLARIJU I NJIHOVE DIMENZIJE

PVC kao sirovi materijal

Polivinil hlorid (PVC) je termoplast koji je u svetu potpuno istražen. Prva industrijska sinteza je izvršena 1912. godine a komercijalna proizvodnja datira od 1931. godine. Danas je PVC jedna od glavnih plastika, druga posle polietilena

PVC je polimer vinil-hlorida koji je proizveden od nafte i soli. PVC se koristi za različite primene uključujući cevi, prozorske ramove, penaste profile, roletne, ploče, boce i film za pakovanje.

PVC opisan kao PVC–u je u saglasnosti sa zahtevima Internacionalne organizacije za standardizaciju za tvrdi PVC. PVC je najviše korišten termoplast u građevinskoj industriji, koja je u Zapadnoj Evropi potrošila oko 57 % PVC–a.

Važan aspekt PVC–u je njegov dug vek primene. Ispitivanja PVC–u prozora pokazuju da prozorski profili imaju zadovoljavajuće osobine i posle trideset godina korištenja. PVC-u se odlikuju trajnošću i preko trideset petogodišnje iskustvo pokazuje da je promena boje posebno belih profila veoma mala.

PVC–u za prozorske profile

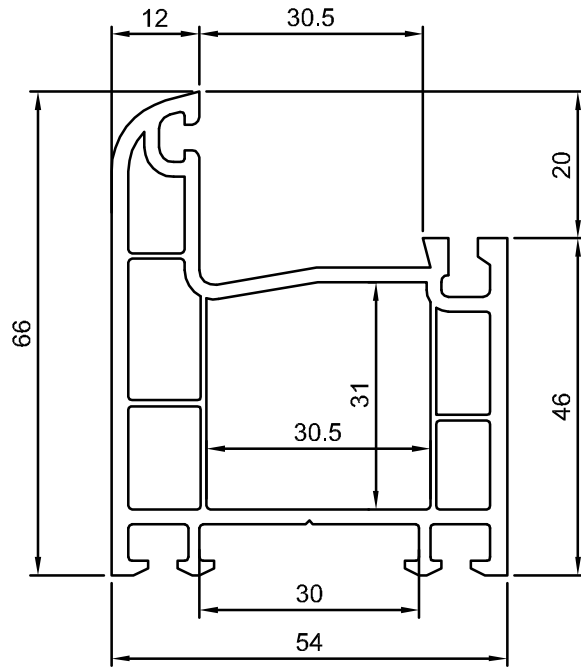
PVC–u formulacije za spoljne profile ima kombinaciju osobina koje se idealne za takve primene. PVC–u se odlikuje odgovarajućom žilavošću, otpornošću na udar na niskim temperaturama, otpornošću na vremenske uticaje, ne podržava gorenje i ima nisku toplotnu provodljivost. Ove osobine dozvoljavaju primenu sa dugim radnim životom sa efektivnom cenom koštanja.

PVC–u profili takođe imaju izvrsnu hemijsku otpornost prema širokom spektru materijala uključujući alkohole, sapune, razređene kiseline, alkalne rastvarače, deterdžente i naftu.

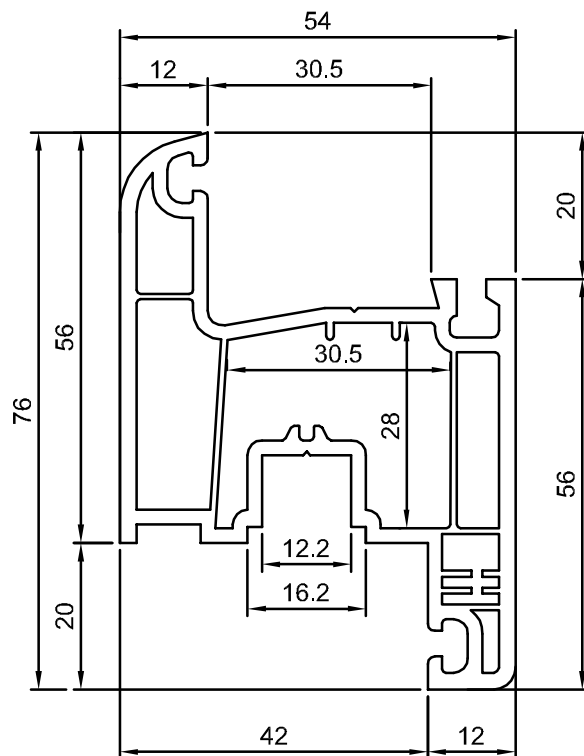
Od prozorskih profila se proizvode prozorski ramovi procesom toplog zavarivanja. Na ovaj način osobine termoplasta prave izuzetno visoki kvalitet zavara.

Iako je najviše prozorskih profila obojeno u belo, takođe se mogu proizvoditi profili u širokoj oblasti boja. U nekim slučajevima završne boje mogu biti takve kao što je zrnasto drvo, koje se dobijaju prevlačenjem profila sa folijom otpornom na vremenske uticaje. Drugi metod za proizvodnju trajno postojanih boja je koekstruzija gde se navlači tanki sloj plastike otporne na vremenske uticaje na površinu profila. Obojeni profili su pogodni u zemljama sa umerenim klimatskim uslovima.

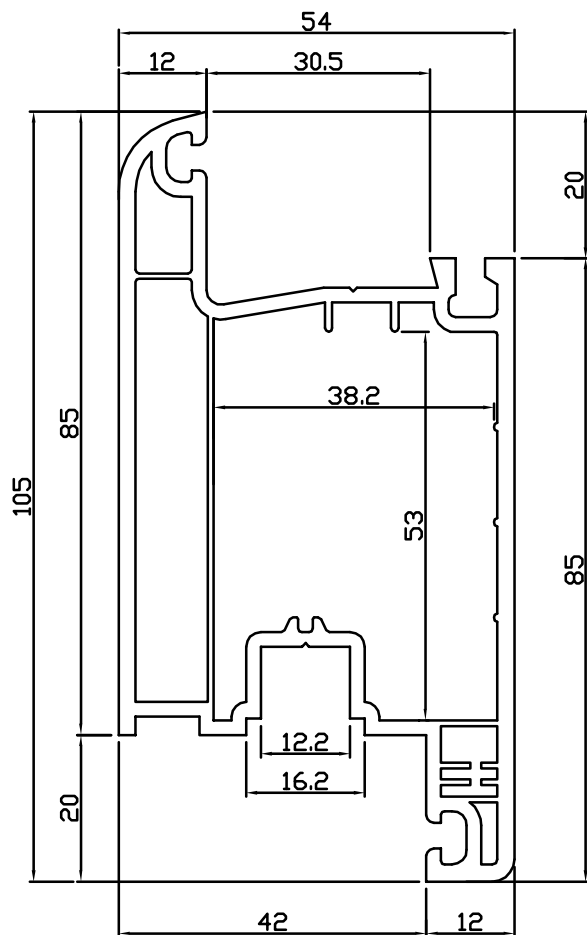
# PROFIL RAMA 301



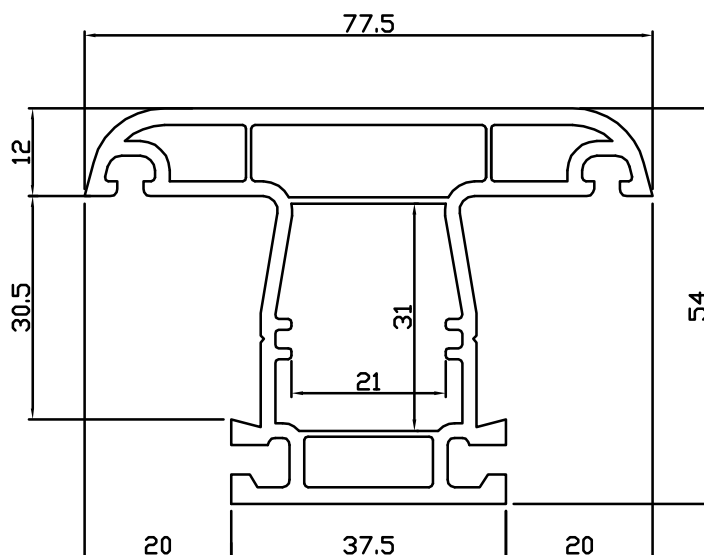
# PROFIL KRILA 310



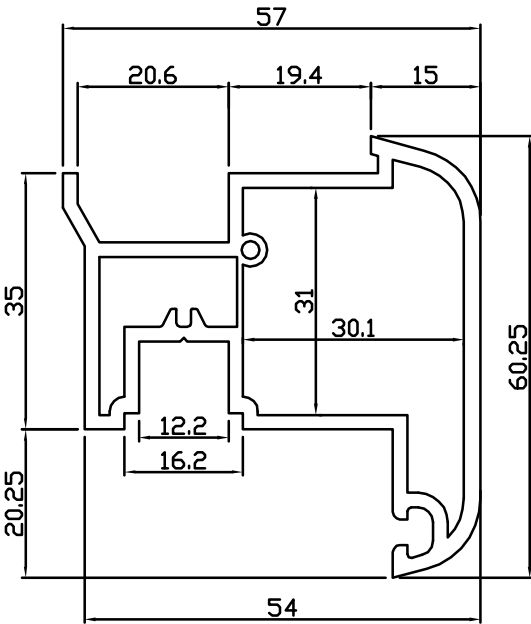
# PROFIL KRILA ULAZNIH VRATA 311



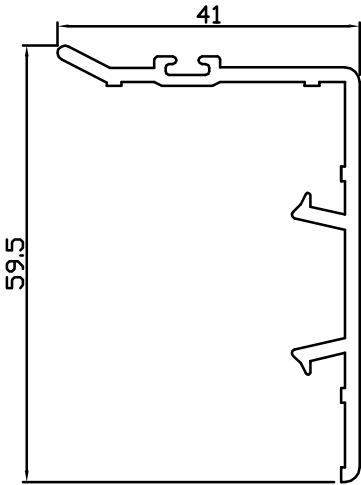
# PROFIL STUBA 320



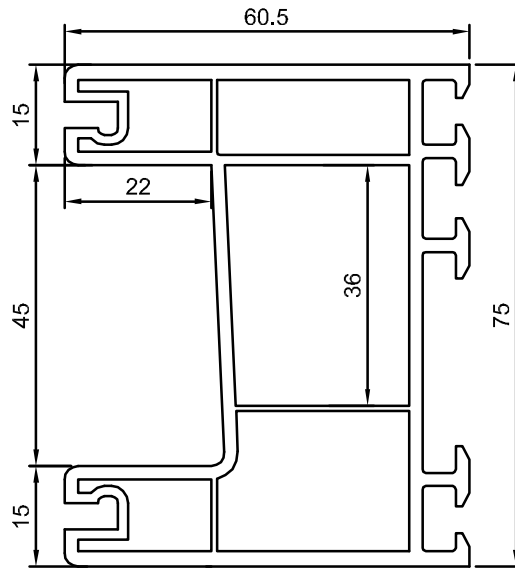
# PROFIL PREKLOPA 321



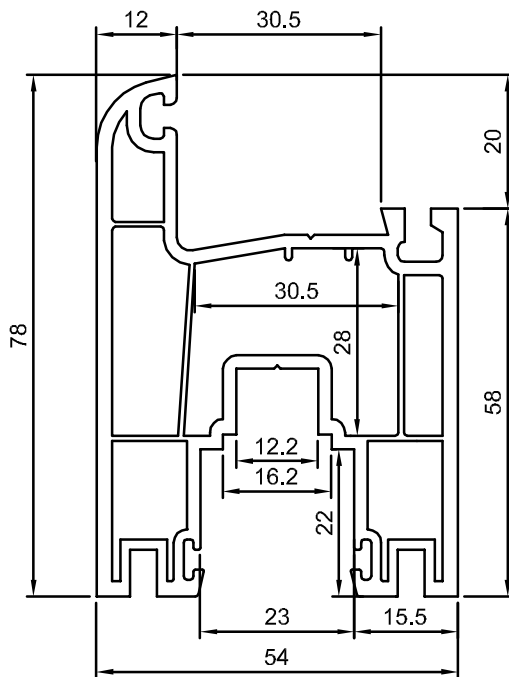
# PROFIL "L" KLIZNI 820



## PROFIL RAMA 801



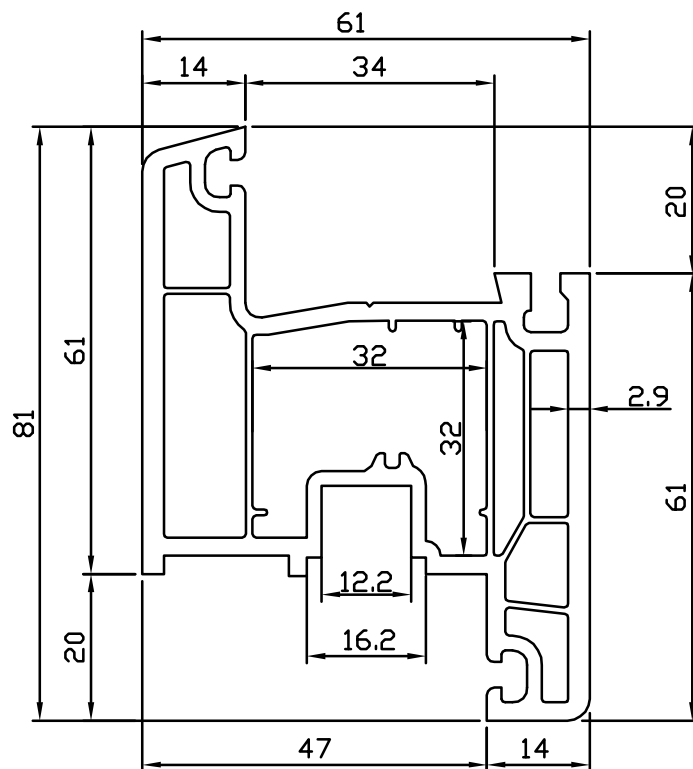
## PROFIL KRILA 810



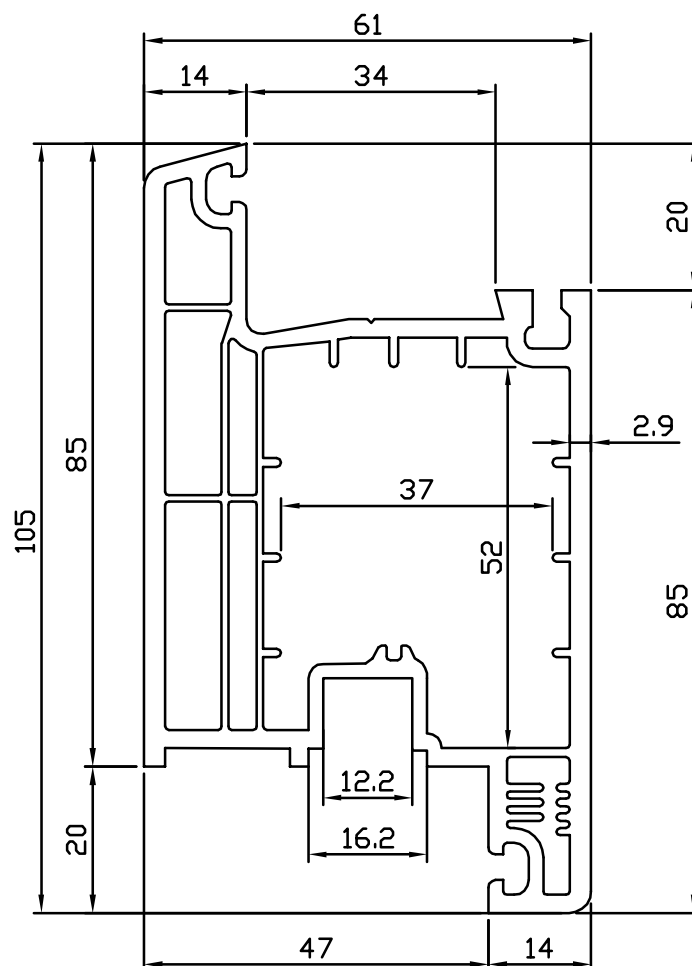




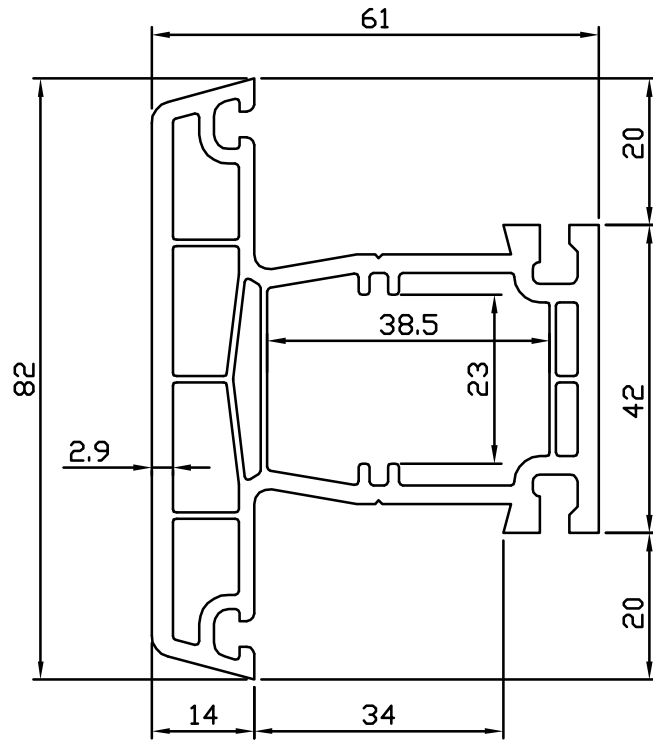
## PROFIL KRILA 410



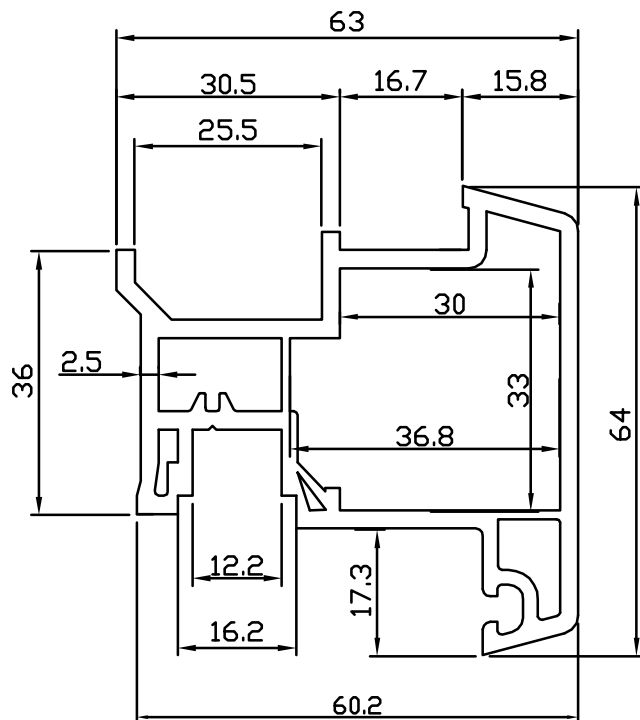
## PROFIL KRILA ULAZNIH VRATA 411



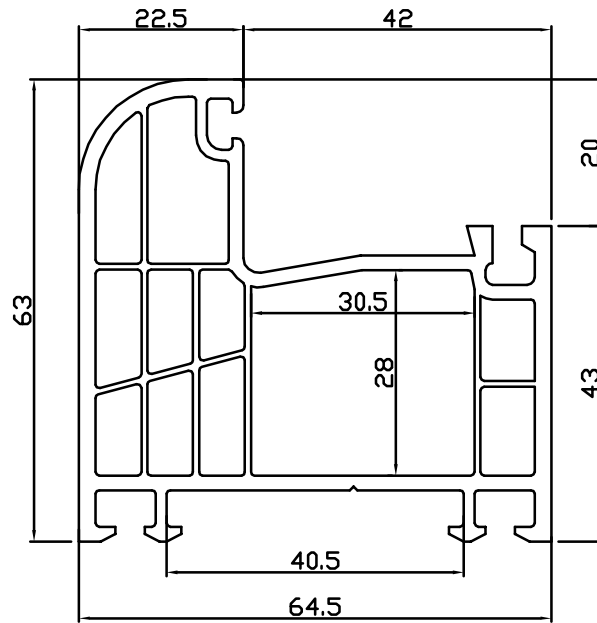
# PROFIL STUBA 420



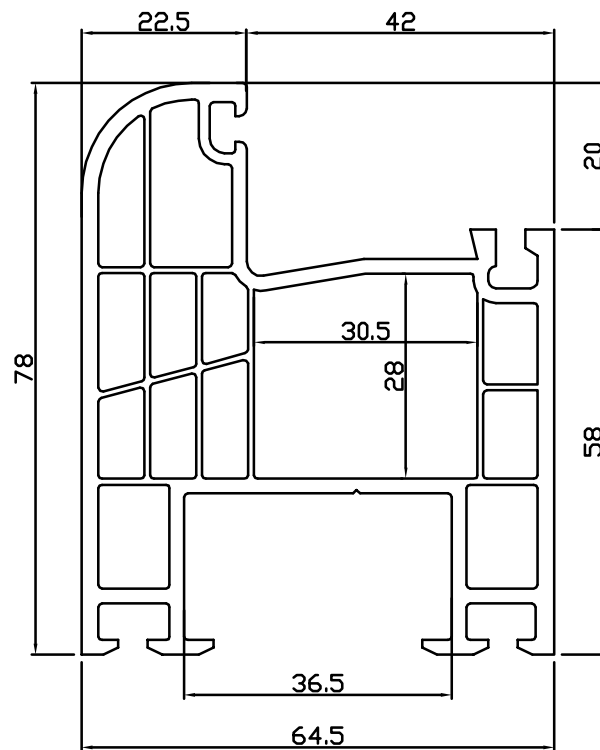
# PROFIL PREKLOPA 421



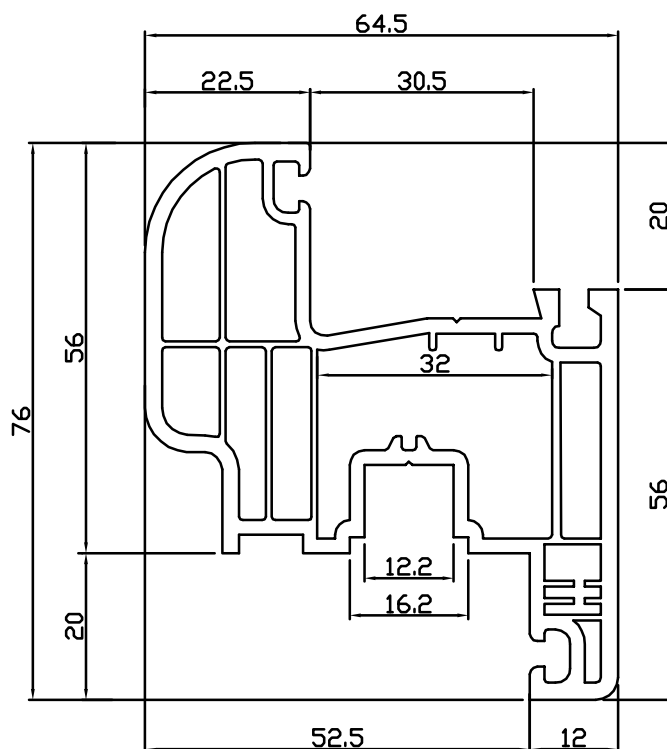
## PROFIL RAMA 501



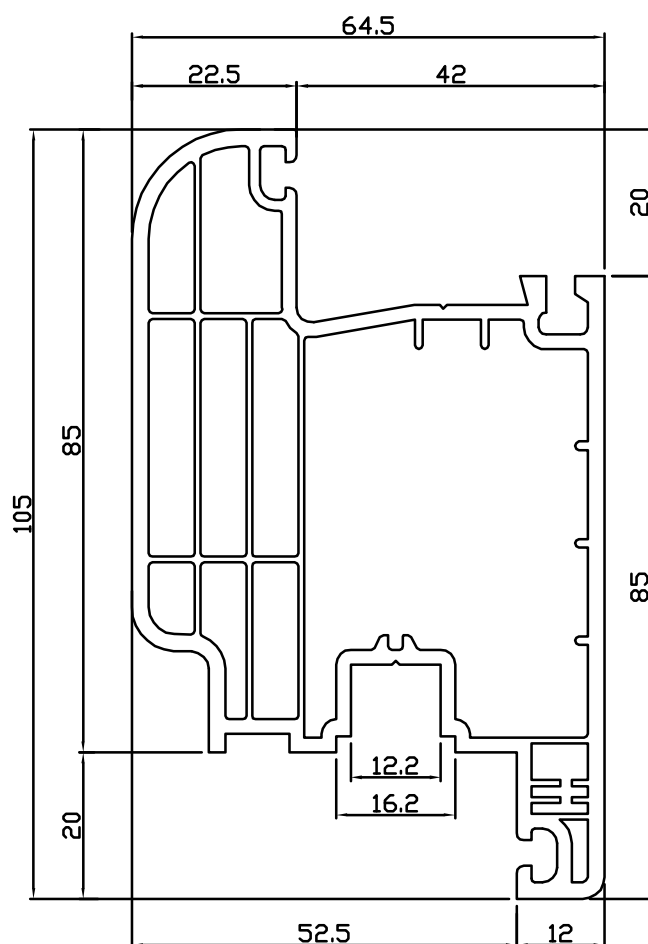
## PROFIL RAMA 503



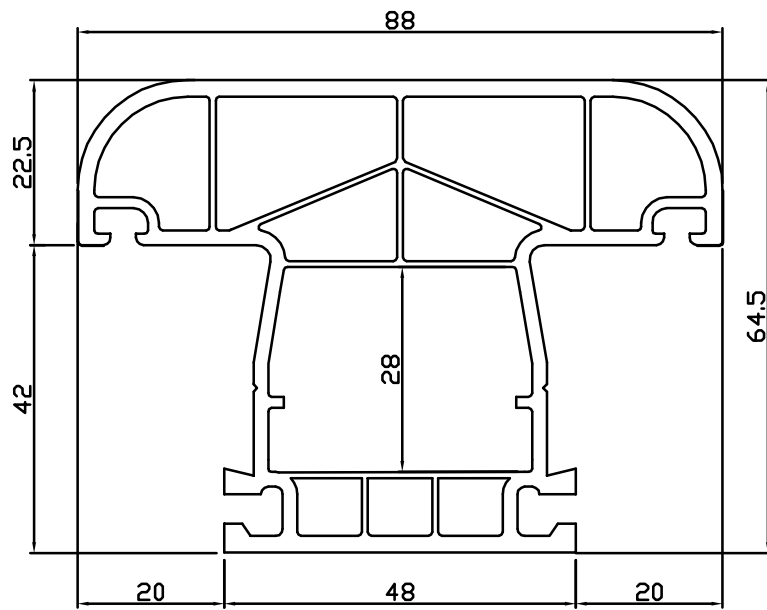
## PROFIL KRILA 510



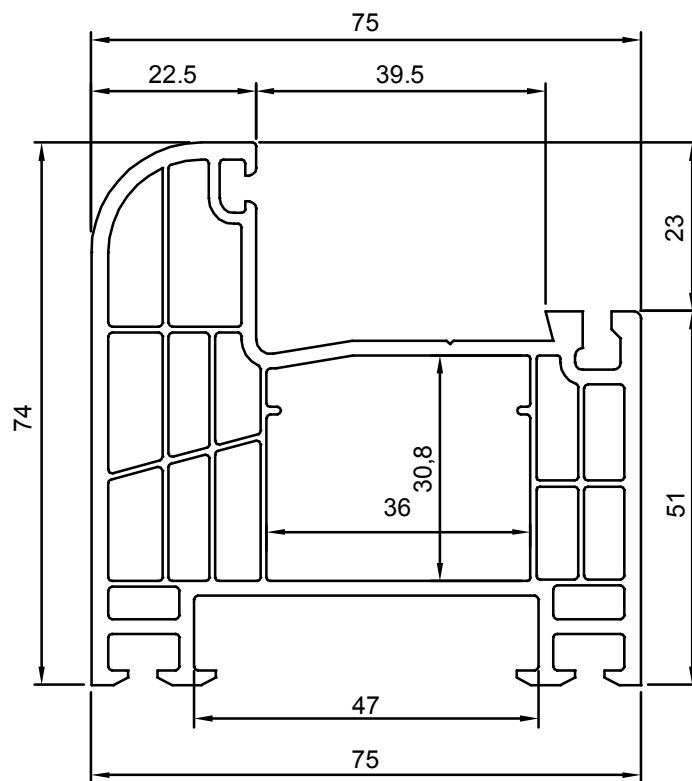
## PROFIL KRILA ULAZNIH VRATA 511



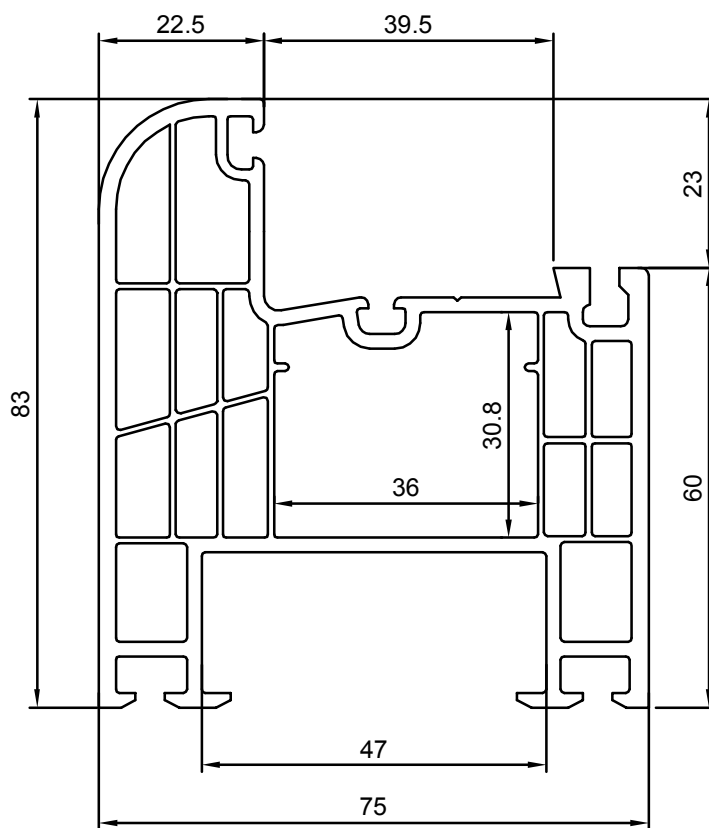
# PROFIL STUBA 520



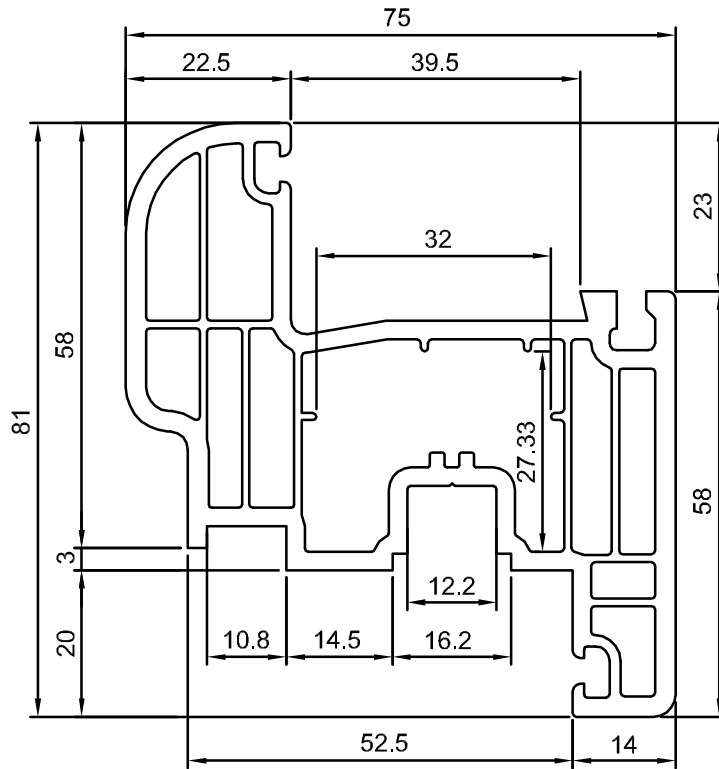
# PROFIL RAMA 601



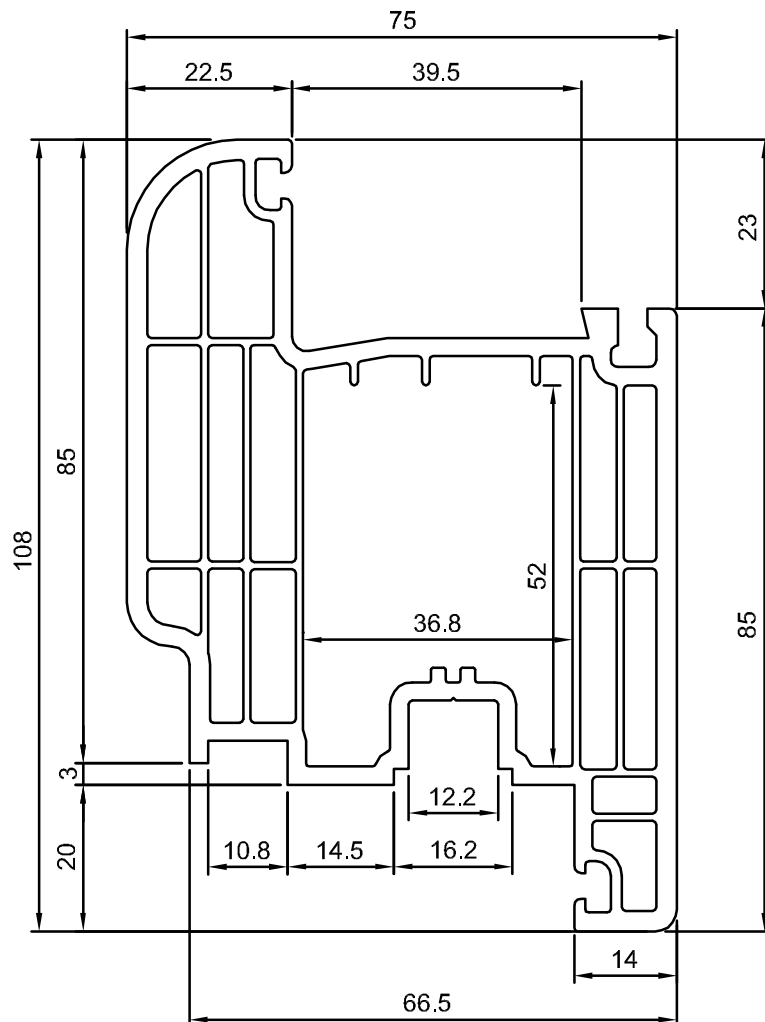
# PROFIL RAMA 603



# PROFIL KRILA 610

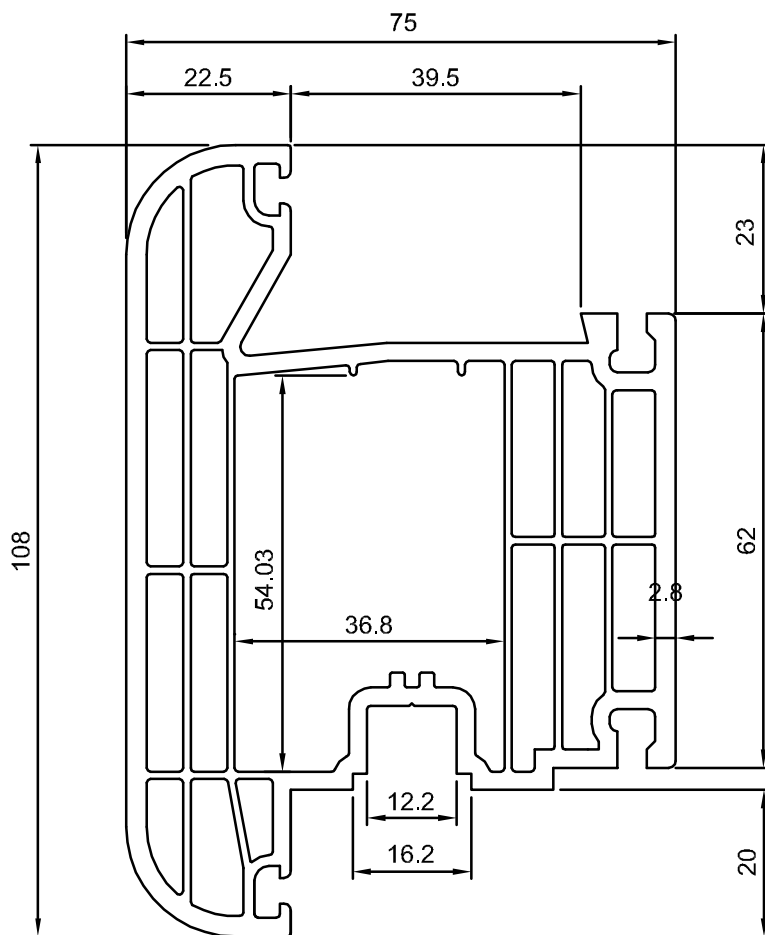


# PROFIL KRILA ULAZNIH VRATA 611

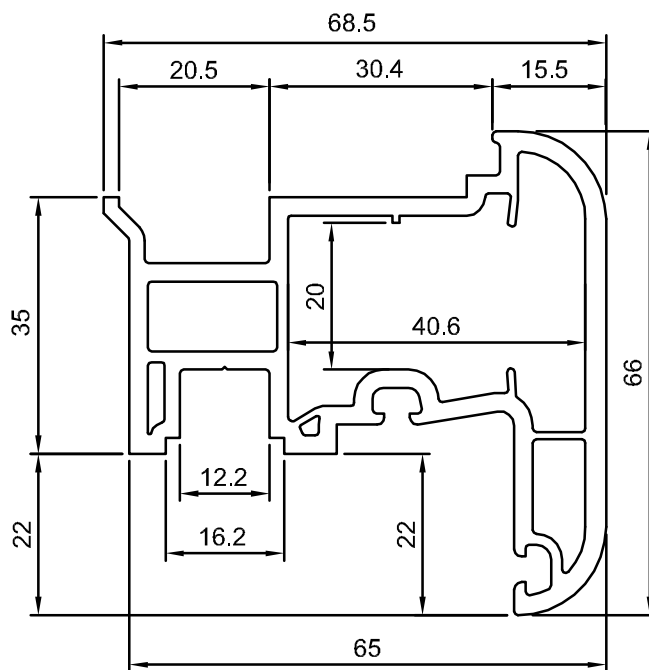




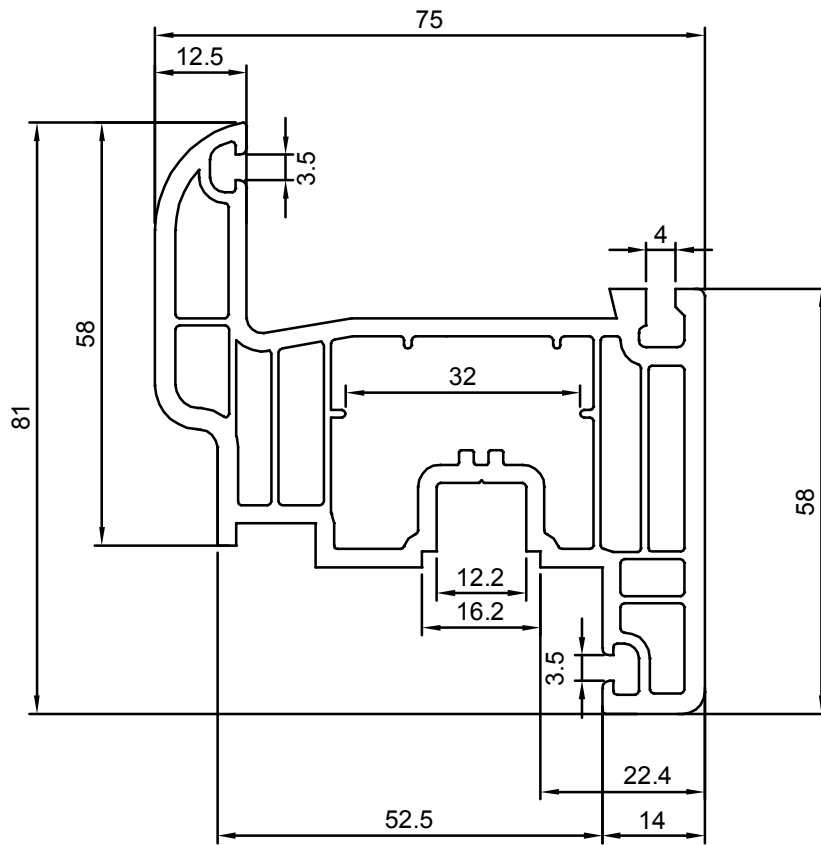
# PROFIL KRILA SPOLJAŠNJIH ULAZNIH VRATA 612



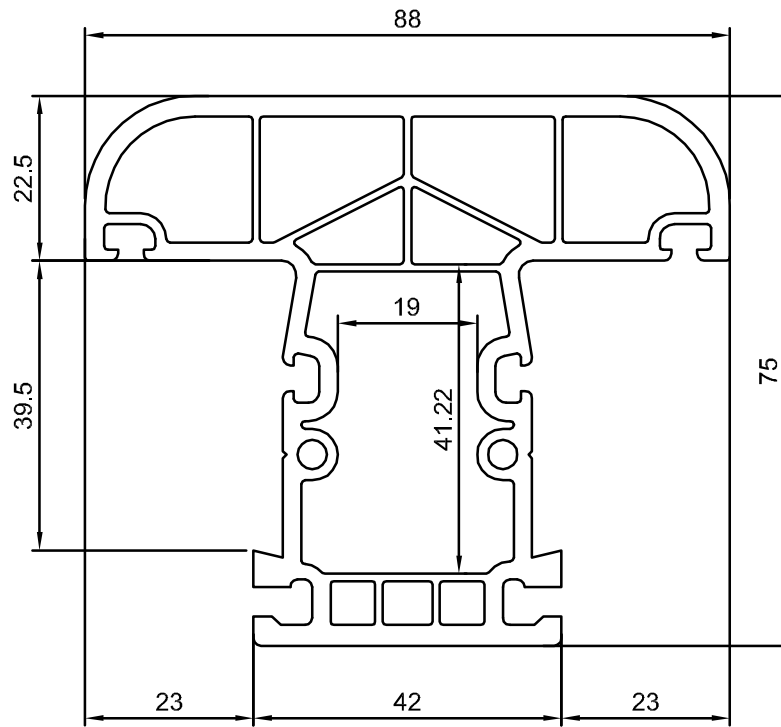
# PROFIL PREKLOPA 621



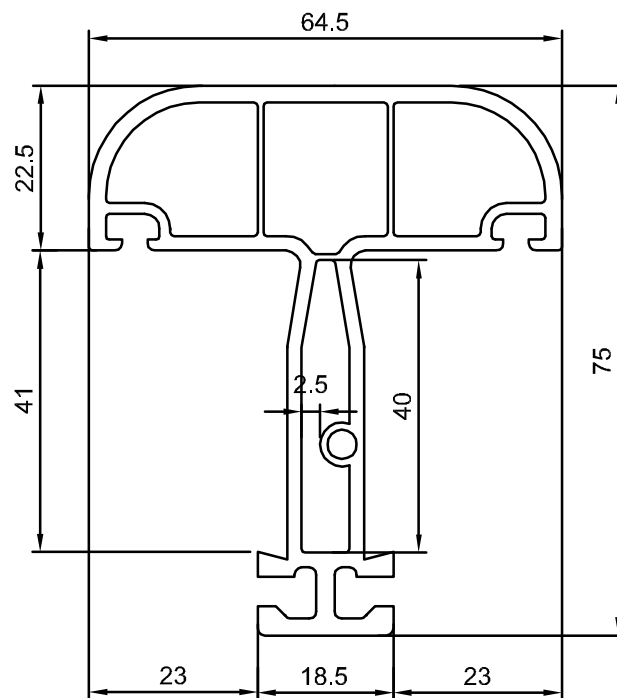
# PROFIL KRILA 613



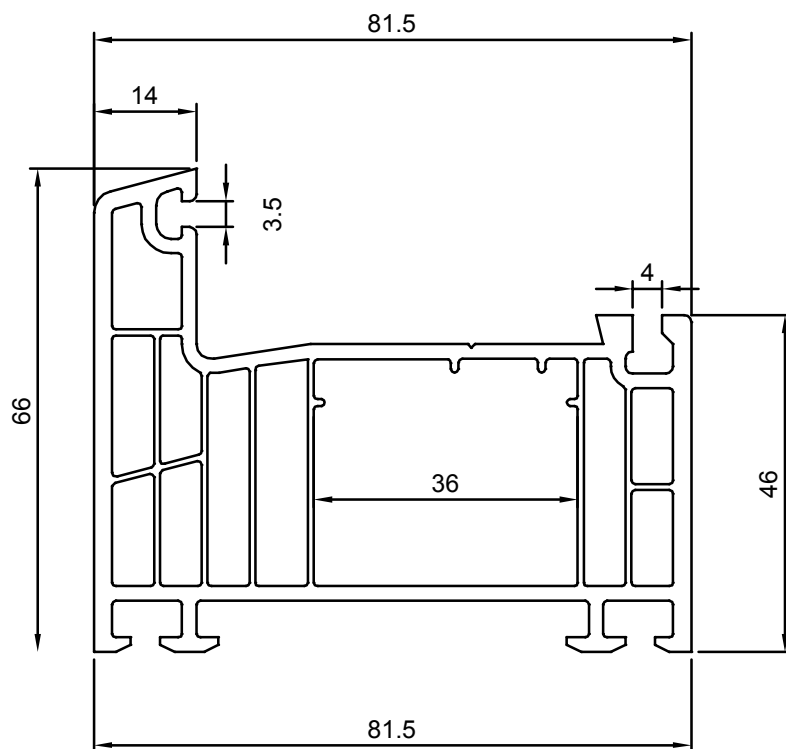
# PROFIL STUBA 620



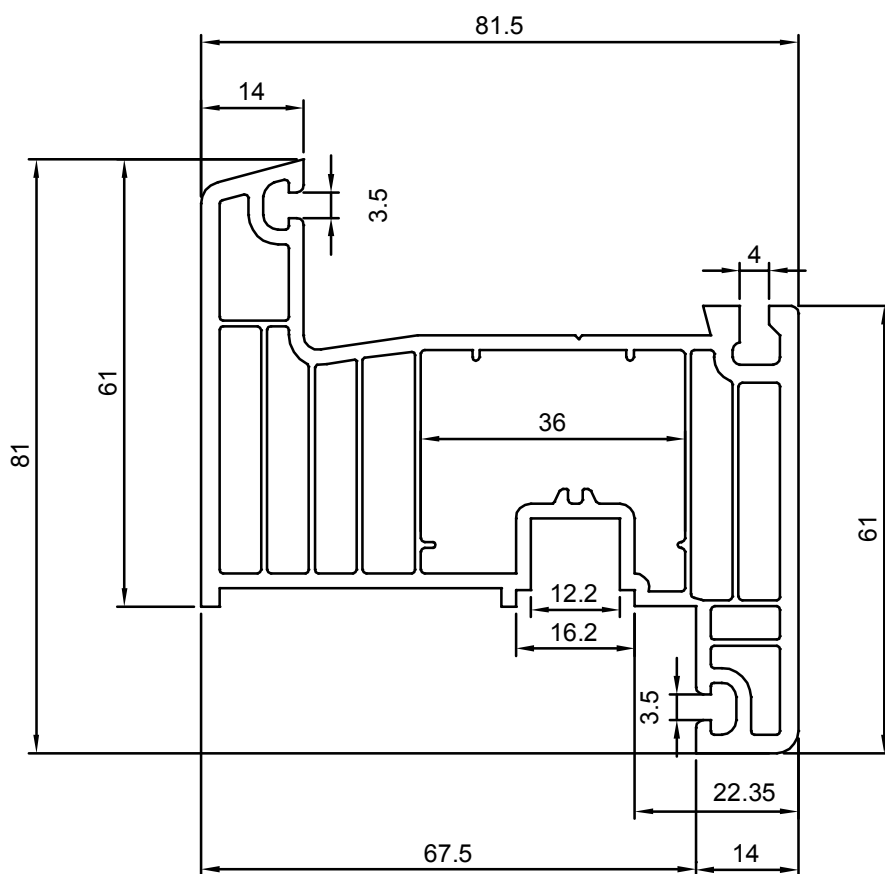
# PROFIL STUBA 622



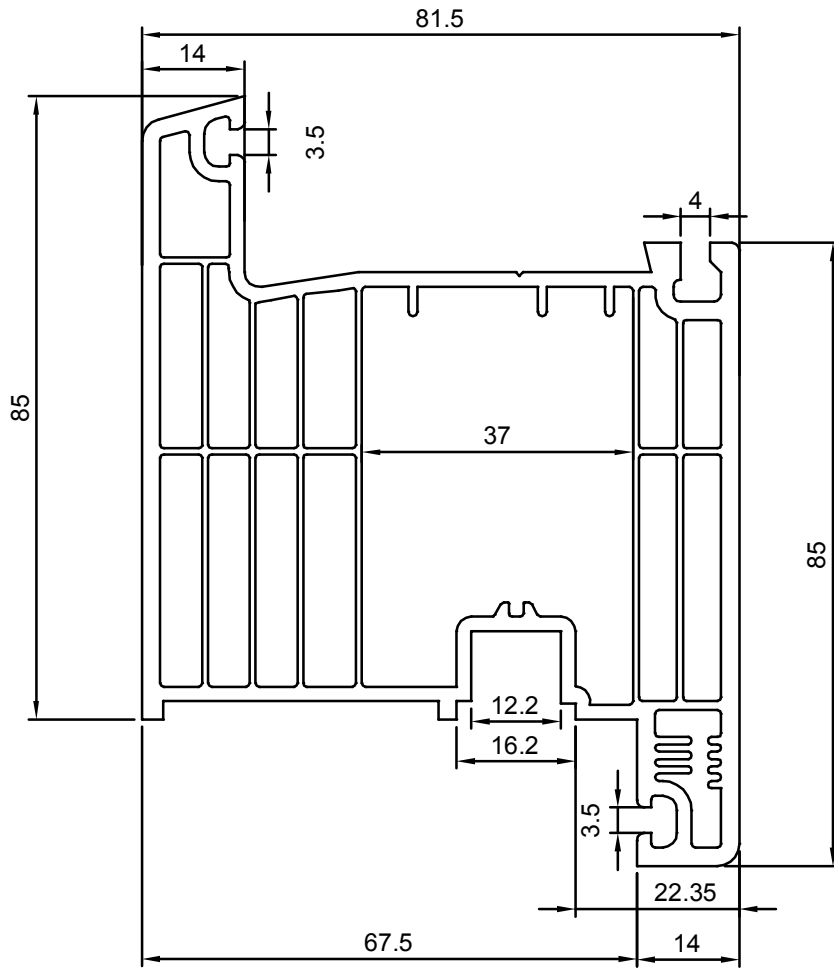
# PROFIL RAMA 701



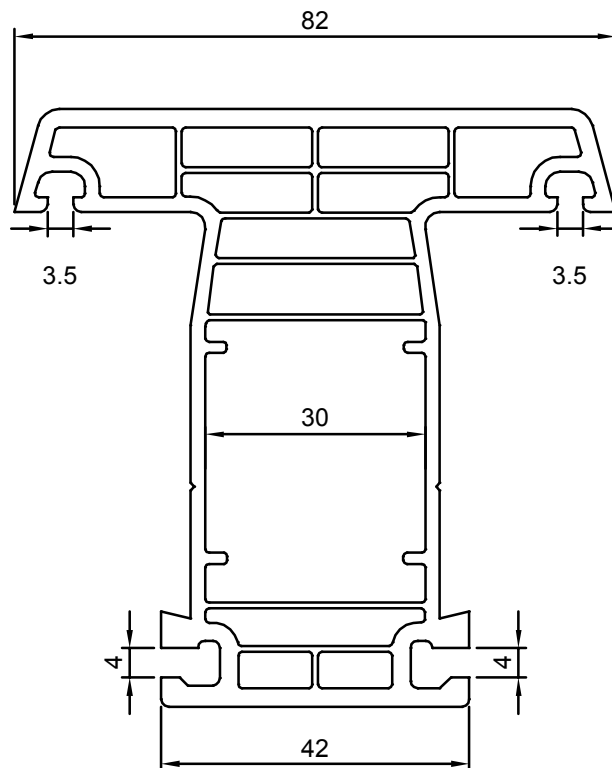
# PROFIL RAMA 710



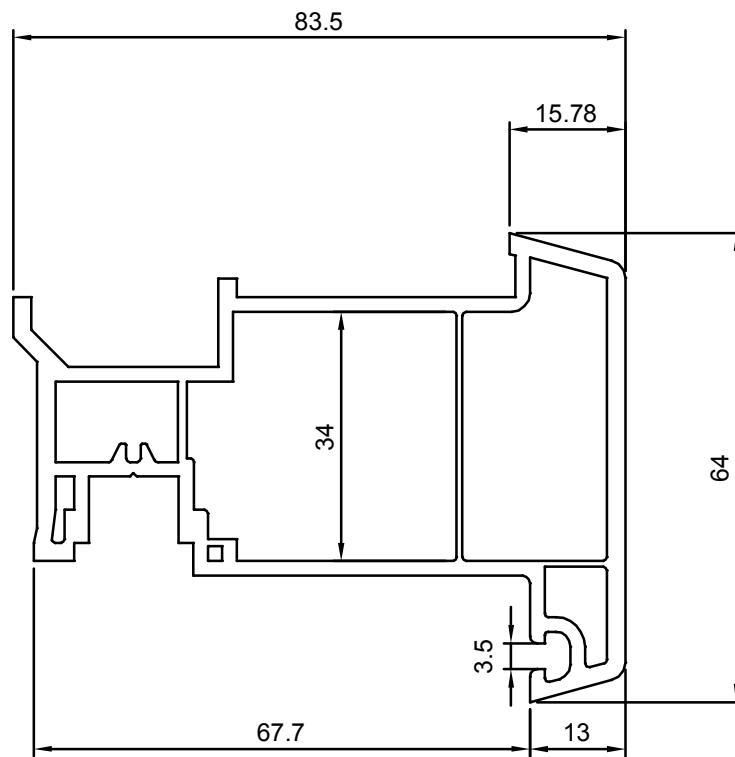
# PROFIL RAMA 711



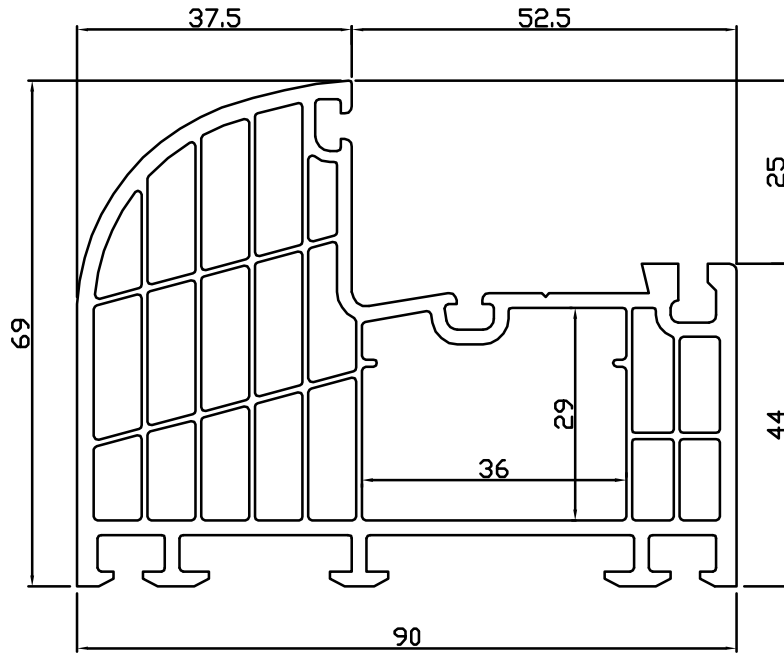
# PROFIL RAMA 720



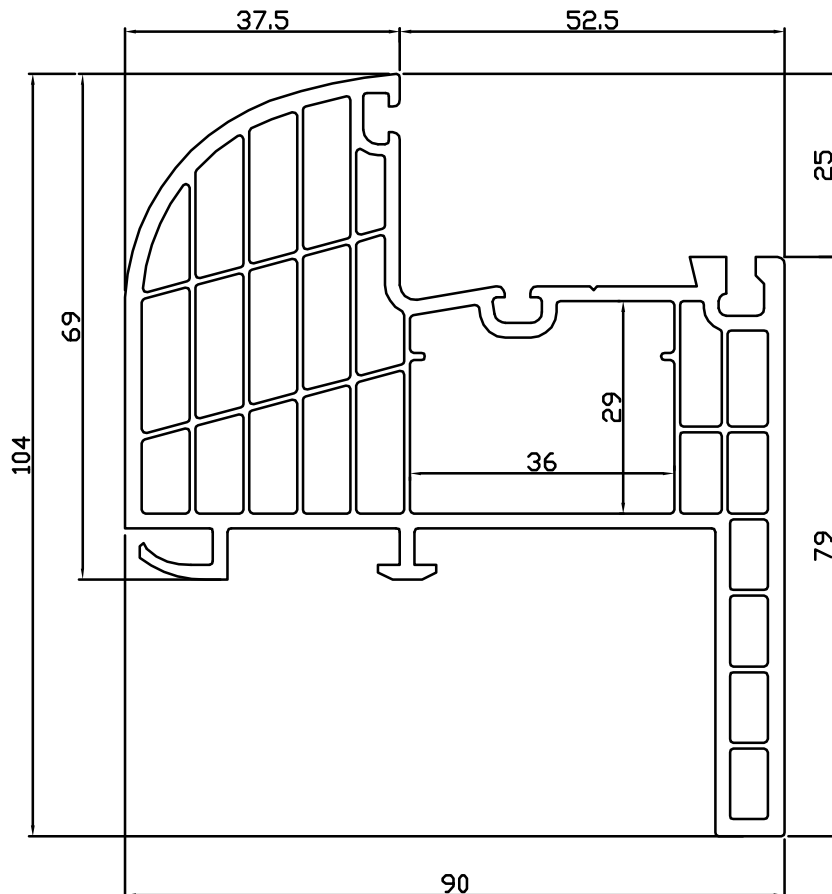
# PROFIL RAMA 721



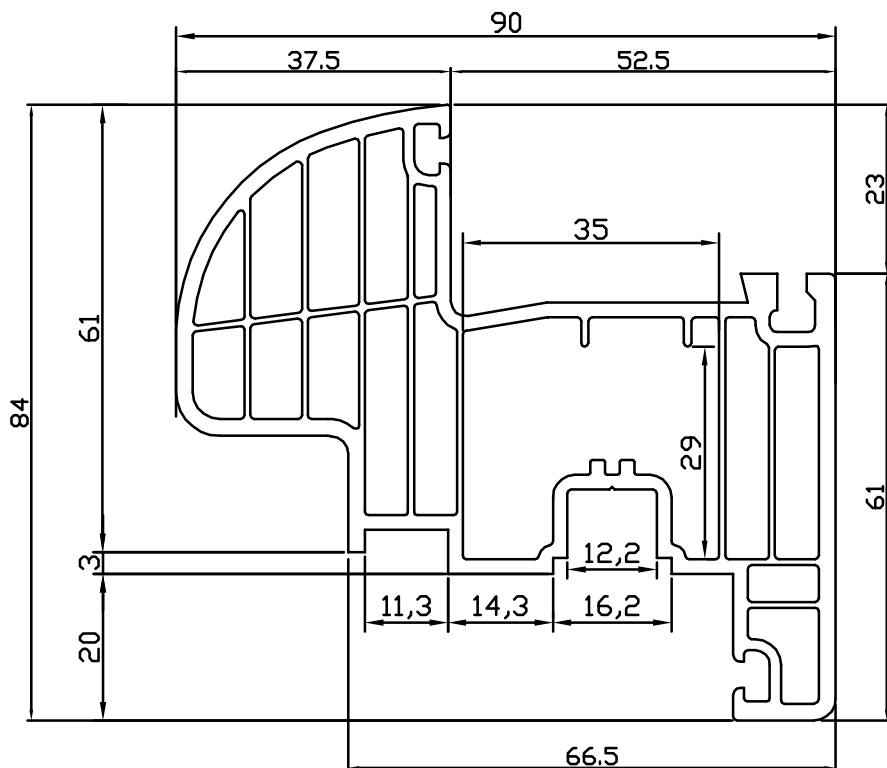
# PROFIL RAMA 802



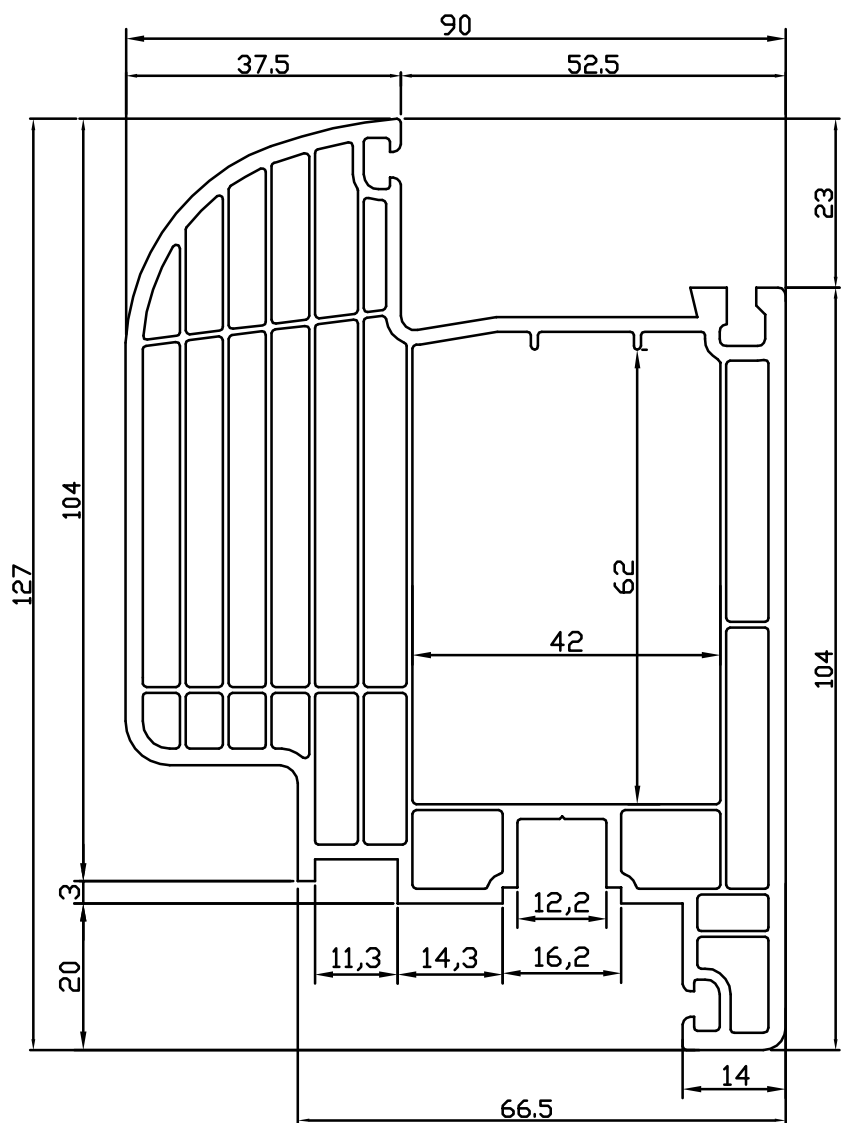
# PROFIL RAMA 803



# PROFIL KRILA 811

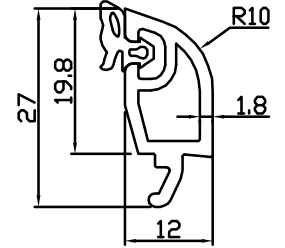
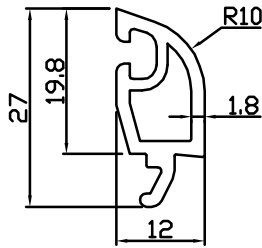
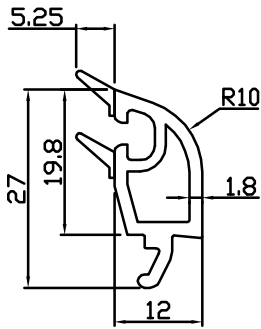


# PROFIL KRILA ULAZNIH VRATA 812

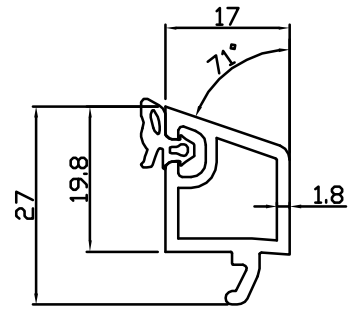
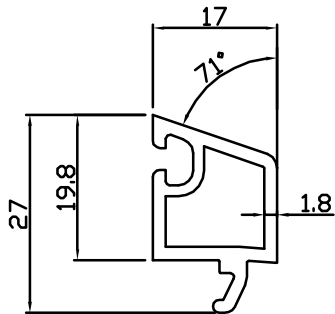
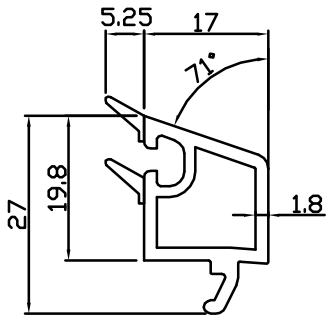




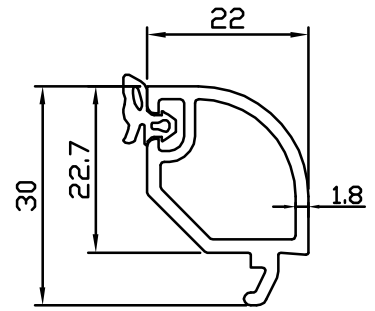
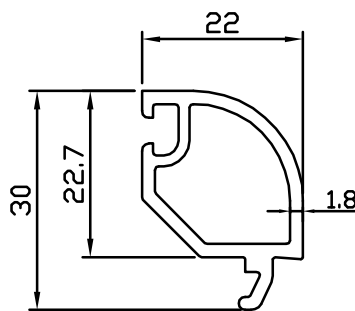
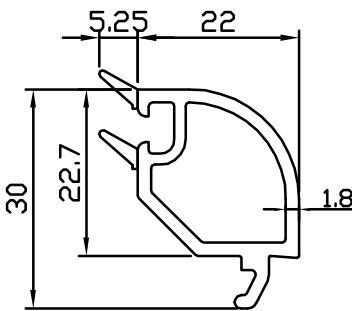
## PROFIL LAJSNE ZA STAKLO 330



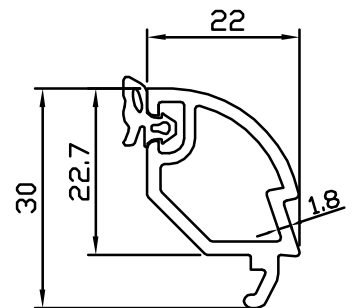
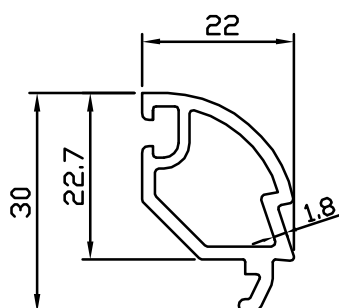
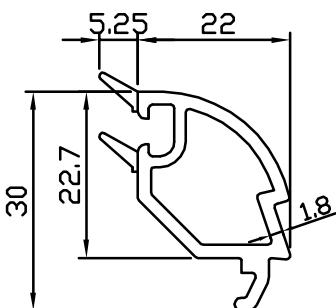
## PROFIL LAJSNE ZA STAKLO 431



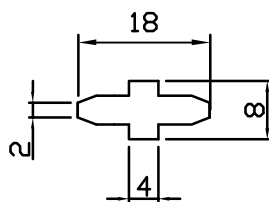
## PROFIL LAJSNE ZA STAKLO 630



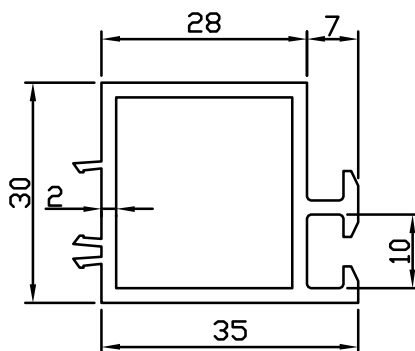
## PROFIL LAJSNE ZA STAKLO 631



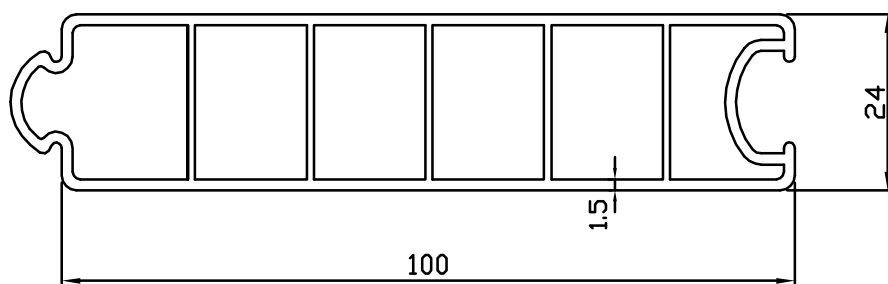
## PROFIL SPOJNICE 100



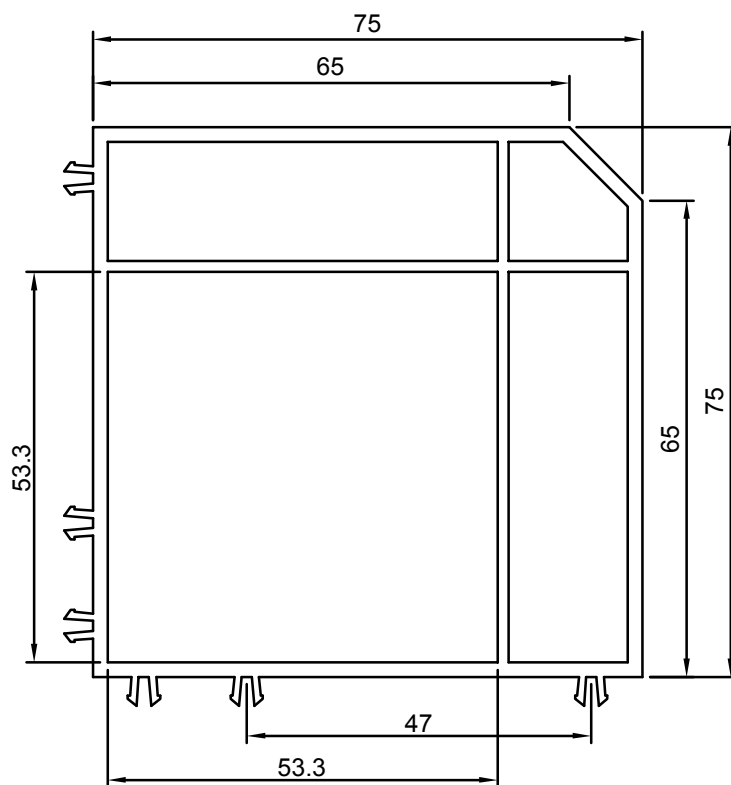
## PROFIL PROŠIRENJA RAMA 402



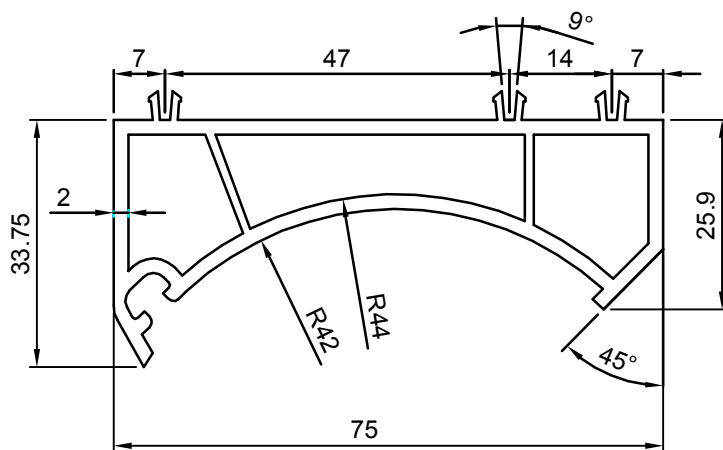
## PROFIL PANELA



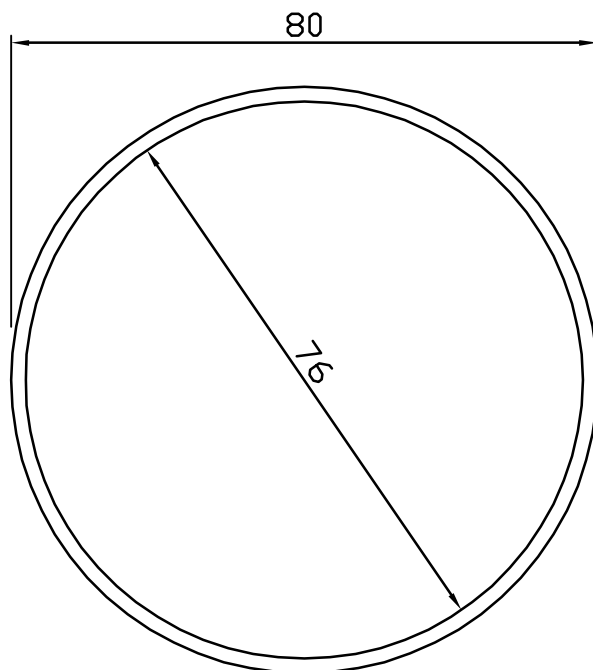
## PROFIL UGAONE SPOJNICE 90° 440



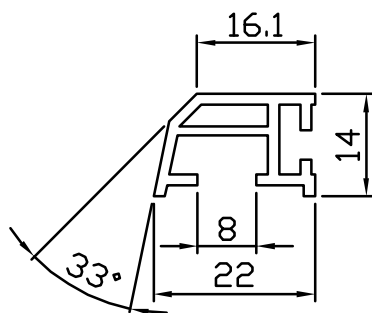
## PROFIL PODEŠAVAJUĆE UGAONE SPOJNICE 450



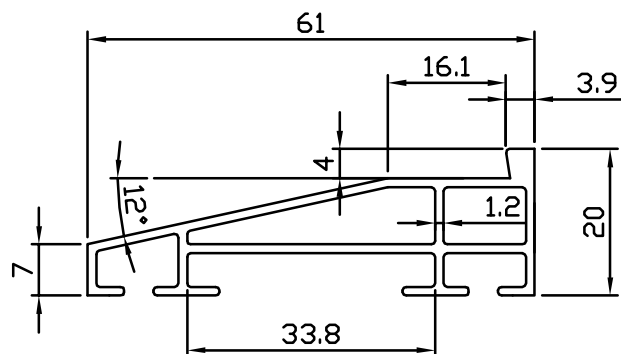
# PROFIL CEVI PODEŠAVAJUĆE UGAONE SPOJNICE 460



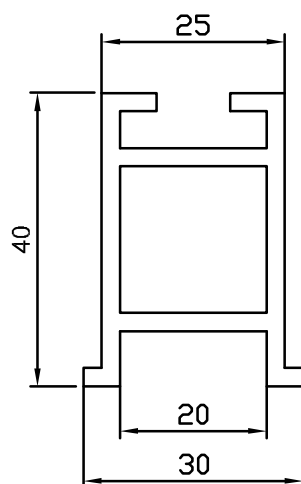
# PROFIL OKAPNICE ZA KRILO 470



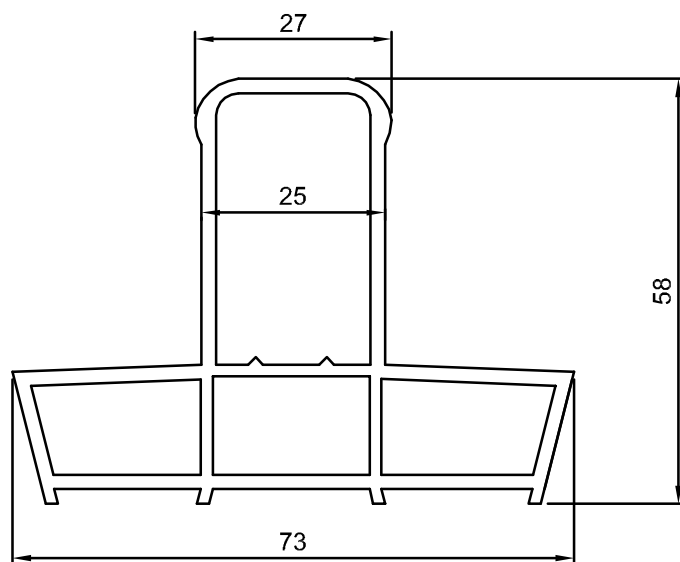
# PROFIL ALUMINIJUMSKOG PRAGA



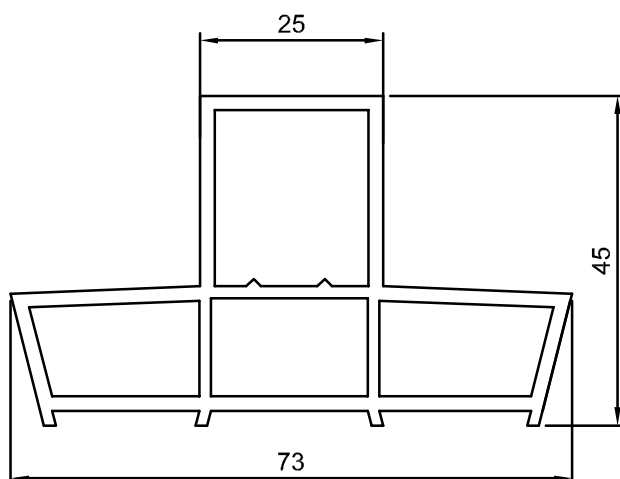
# PROFIL ADAPTERA ZA PODPROZORSKU DASKU 101



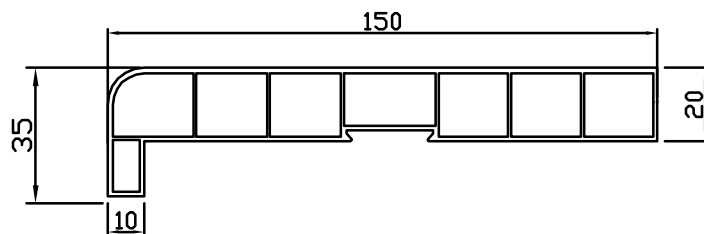
# PROFIL ADAPTERA ZA PODPROZORSKU DASKU 102



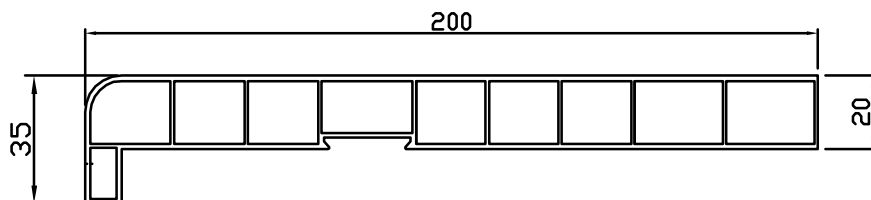
# PROFIL ADAPTERA ZA PODPROZORSKU DASKU 103



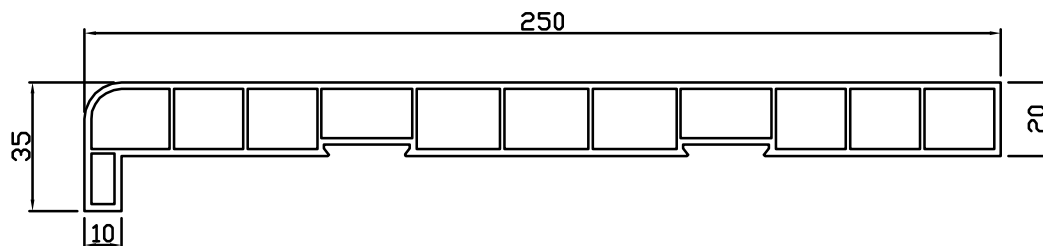
## PROFIL PODPROZORSKE DASKE 150



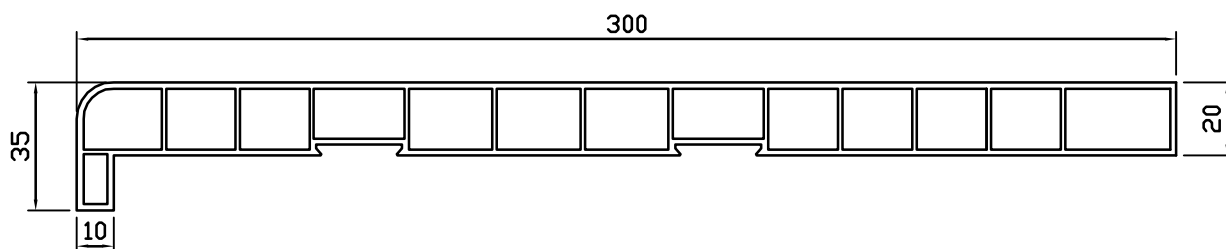
## PROFIL PODPROZORSKE DASKE 200



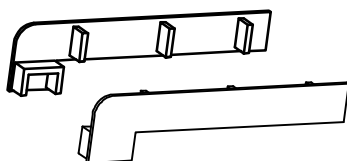
## PROFIL PODPROZORSKE DASKE 250



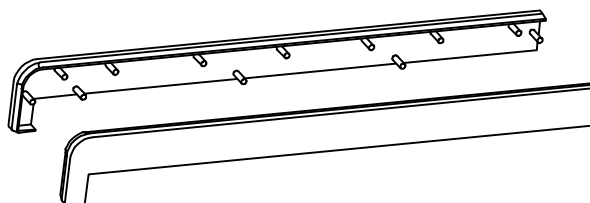
## PROFIL PODPROZORSKE DASKE 300



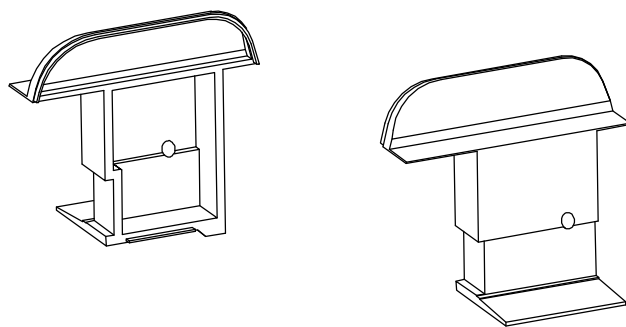
## PROFIL ČEPA ZA PODPROZORSKU DASKU - MANJI



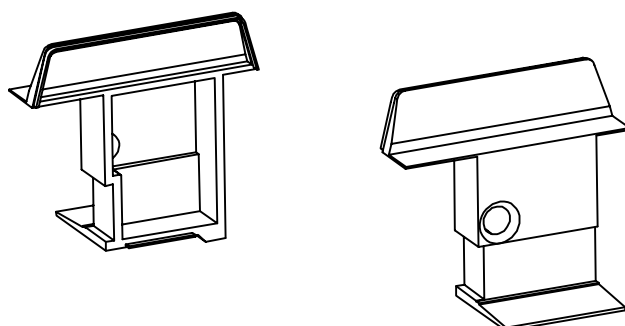
## PROFIL ČEPA ZA PODPROZORSKU DASKU - VEĆI



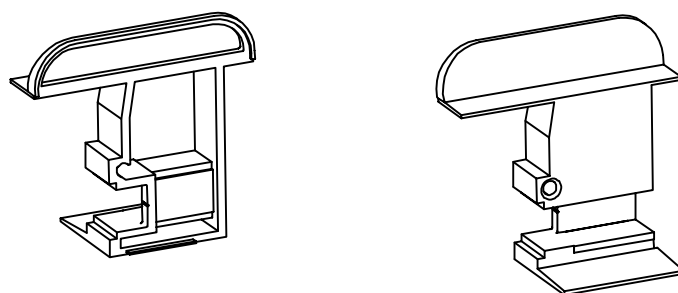
## PROFIL ČEPA ZA LAŽNU PREČKU 321



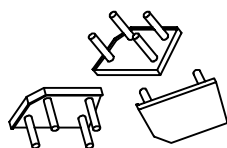
## PROFIL ČEPA ZA LAŽNU PREČKU 421



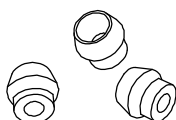
## PROFIL ČEPA ZA LAŽNU PREČKU 621



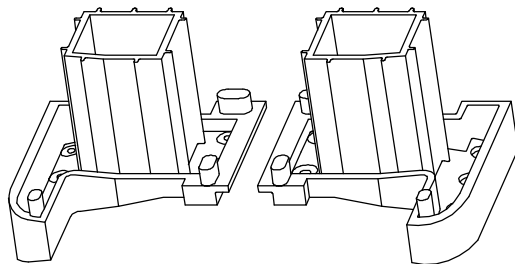
## PVC ČEP ZA OKAPNICU



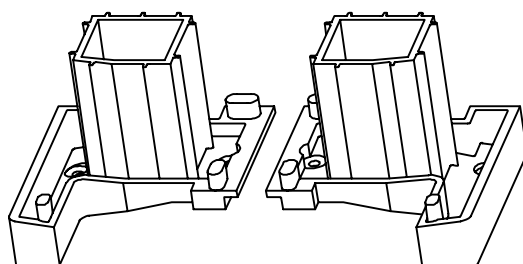
## PVC SPOJKA ZA PVC DVOKANALNU VODICU



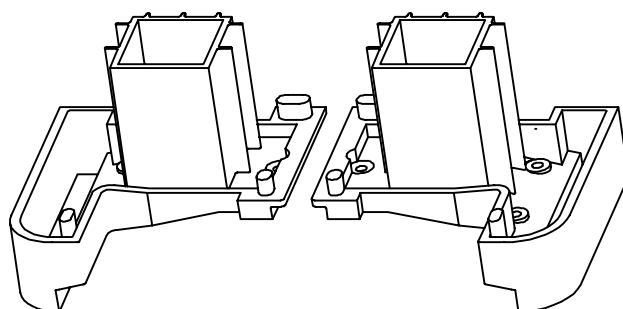
## PROFIL SPOJKE AL PRAG - RAM 301



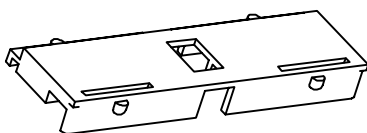
## PROFIL SPOJKE AL PRAG - RAM 401



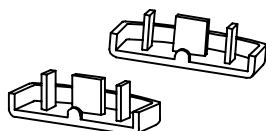
## PROFIL SPOJKE AL PRAG - RAM 601



## PVC PODMETAČ ZA STAKLO

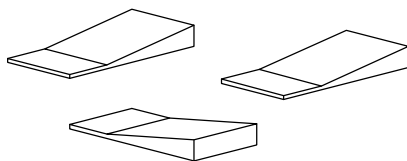


## PVC ČEPA ZA VODU

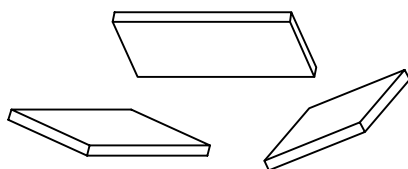




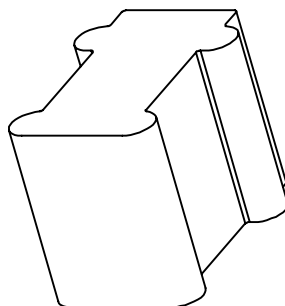
## PVC KAJLE ZA ZASTAKLJIVANJE



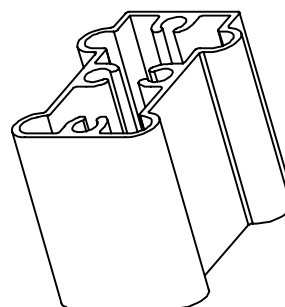
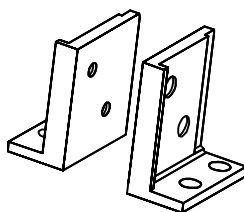
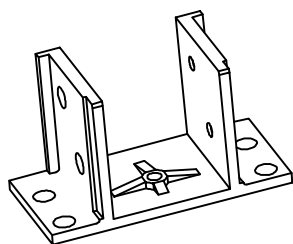
## PVC KAJLE ZA ZASTAKLJIVANJE - RAVNE



## PROFIL PVC SPOJNICE POD UGLOM



## PROFIL ALUMINIJUMSKE SPOJNICE



### 3. MOMENT INERCIJE ZA X I Y OSU, POVRŠINA POPREČNOG PRESEKA

U ovoj knjizi smo računali momente inercije za osu x i y kako je definisano na crtežu iz prostog razloga da utvrdimo koliki su momenti inercije, jer za određene dimenzije prozora nije potrebno ugraditi čelično ojačanje. Insistiramo na čeličnom ojačanju ne samo zbog toga što ovaj materijal ima veliki modul elastičnosti, nego iz prostog razloga da bi se ostvarila veza čeličnog okova, čeličnim vijkom za čelično ojačanje. Osnovni problem labavljenja aluminijumskih prozora tokom vremena je da su u kontaktu dva različita materijala (čelična šarka, aluminijumski profil) i vremenom dolazi do pojave elektrohemijske korozije, jer postoji elektrolit, vlažan vazduh.

Profil krila treba da izdrži savijanje usled težine stakla (težina stakla  $\vec{G}$  u pravcu ose y, savijanje oko ose x).

Korištenjem šestokomornog profila se obezbeđuje veći žleb radi smeštaja staklopaketa sa tri stakla sa odgovarajućim rastojanjem između njih može se postići značajno povećanje zvučne izolacione moći.

Potrebno je definisati glavne profile: to su profili koji uglavnom primaju opterećenja (od udara vetra i rukovanja čovečijom rukom). Momenti inercije su naročito izraženi kod utvrđivanja ugaone čvrstoće vara. Što god je veći moment inercije to je i sposobnost ugaonog spoja (spoj zavaren) veći.

Treba naglasiti da je kod prozorskih profila osnovno naprezanje, naprezanje na savijanje. Naprezanje na istezanje i pritisak je neznatno i ono je prouzrokovano usled promene temperature leti (istezanje), zimi (sabijanje). O ovom problemu treba voditi računa naročito kod ugradnje prozora, jer velika temperaturna polja mogu izazvati ogromne napore, koji za posledicu imaju pucanje pored vara. Naročito veliko temperaturno polje je izraženo kod obojenih profila (razlika između spoljašnje i unutrašnje sredine može iznositi i do 40 °C. To je razlog zašto se dominantno u svetu koristi beli PVC profil.

#### Veličina prozora

Nezavisno od navedenih ograničenja dimenzija treba paziti da maksimalna dužina ivice kod belih profila iznosi 4,0 m, a kod profila u boji 2,5 m, iznad dužine ivice od 4,0 m odnosno 2,5 m spojevi rama moraju se izvesti kao elastične veze.

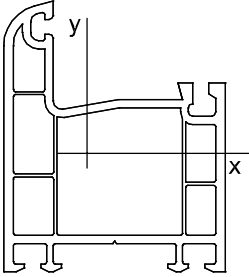
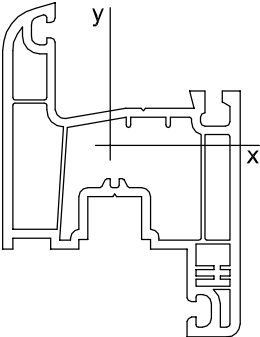
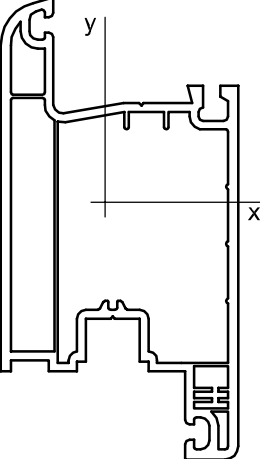
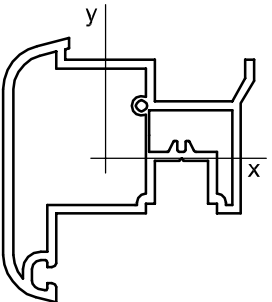
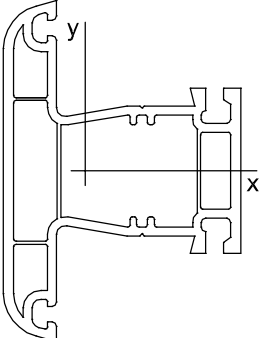
Te elastične veze ne smeju se premostiti sa ramovima, potpornim profilima i sl. Kod fiksnog ostakljenja sa belim profilima maksimalna dužina ivice ograničena je na 3,0 m. Radi definisanja maksimalne površine (pogledati DIN 18056) – stakleni zidovi.

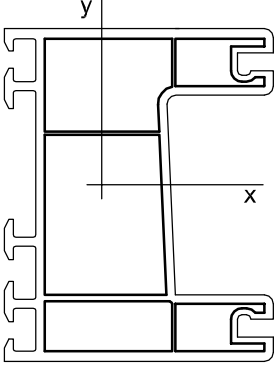
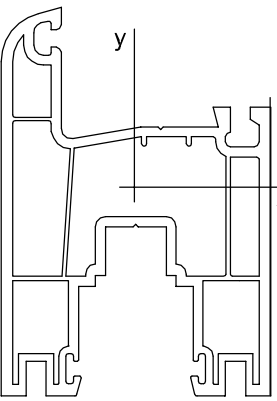
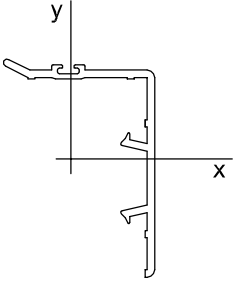
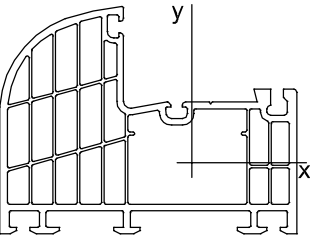
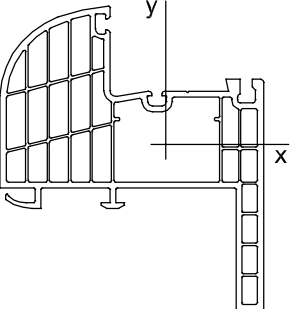
Nezavisno od konstrukcije (elementi ili fiksno ostakljenje) za staklene zidne površine veće od 9 m<sup>2</sup> i dužine stranice najmanje 200 cm treba napraviti poseban statički proračun.

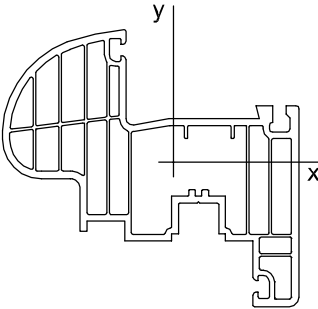
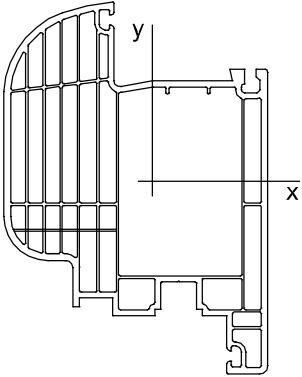
#### Grupe opterećenja

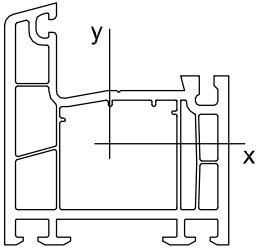
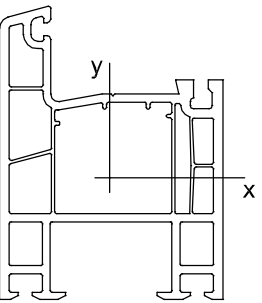
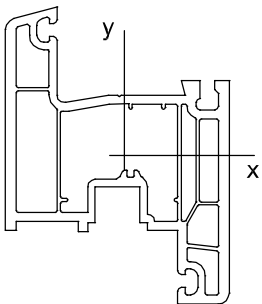
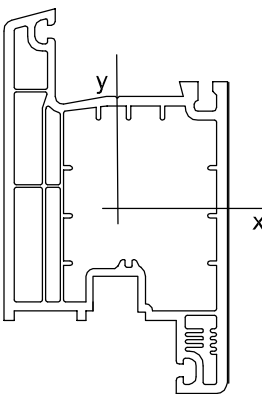
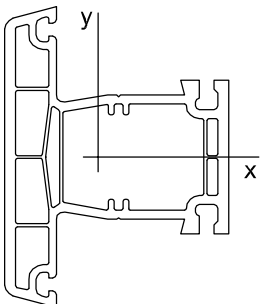
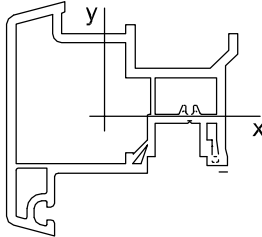
Prozori su uglavnom izloženi opterećenju usled vetra. Zbog toga se u DIN 1055 opterećenja vetrom zavisno od visine zgrade dele u četiri grupe opterećenja:

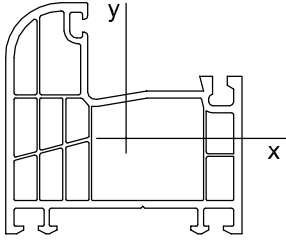
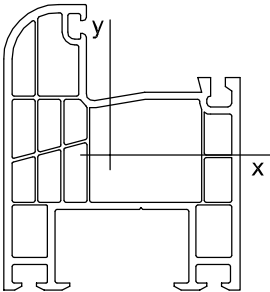
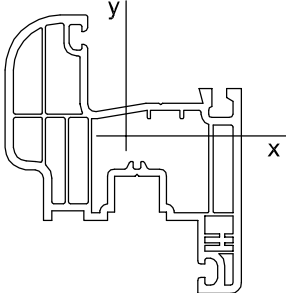
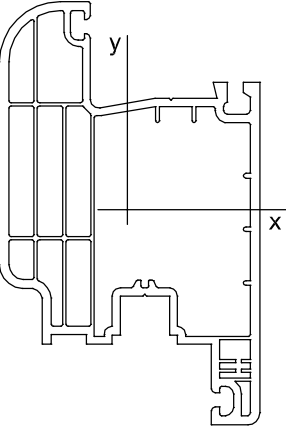
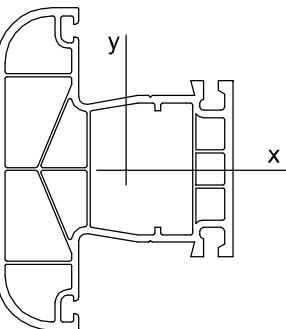
Grupa	Visina opterećenja zgrade
A	0 – 8 m
B	8 – 20 m
C	20 – 100 m
D	iznad 100 m

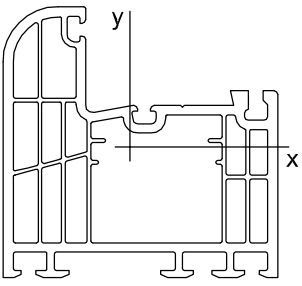
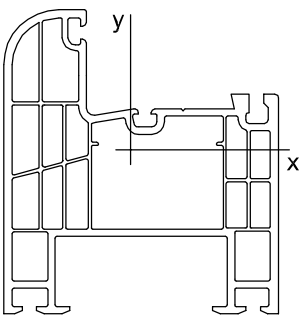
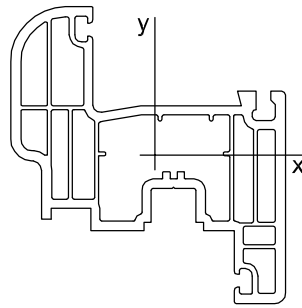
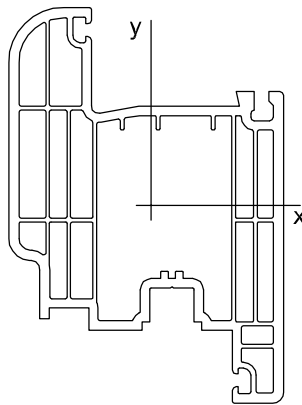
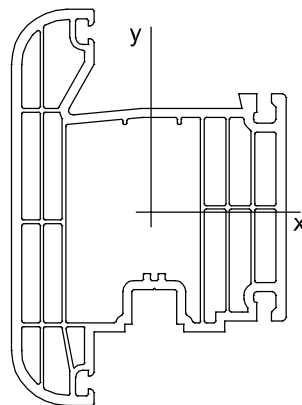
PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 300	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm) <sup>2</sup>	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil rama (301)				
	Profil krila prozora i balkonskih vrata (310)				
	Profil krila ulaznih vrata (311)				
	Profil preklopa (321)				
	Profil stuba rama i krila (320)				

PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 800	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm <sup>2</sup> )	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil rama (801)				
	Profil krila prozora i rama (810)				
	Profil "L" klizni (820)				
	Profil rama (802)				
	Profil rama (803)				

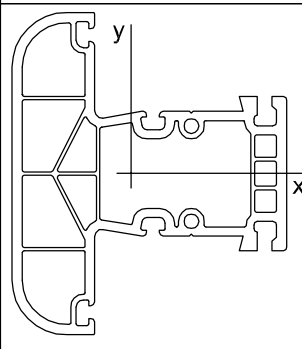
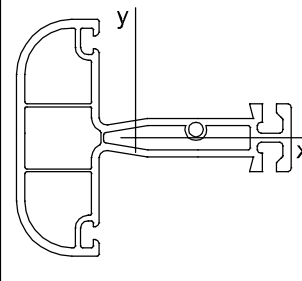
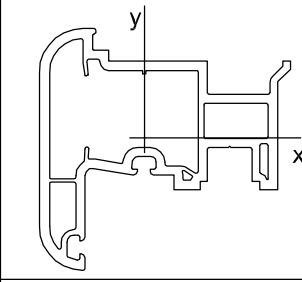
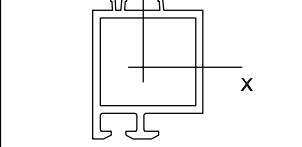
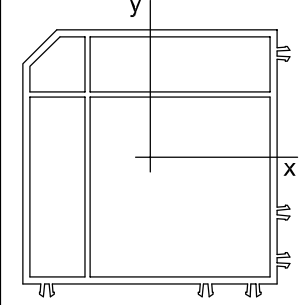
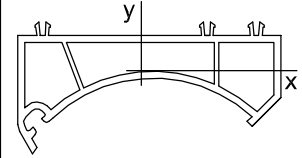
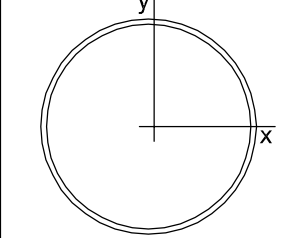
PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 800	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm <sup>2</sup> )	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	<p>Profil rama (811)</p>				
	<p>Profil rama (812)</p>				

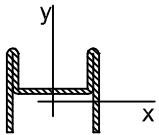
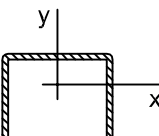
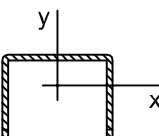
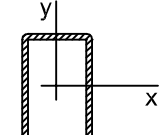
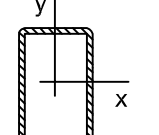
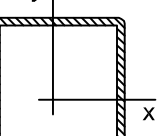
PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 400	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm <sup>2</sup> )	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil rama (401)		8,41	28,325	42,663
	Profil rama (403)		9,76	47,48	51,43
	Profil krila prozora i balkonskih vrata (410)		9,46	38,769	45,851
	Profil krila ulaznih vrata (411)		11,58	95,16	60,51
	Profil stuba rama i krila (420)		9,085	37,36	44,41
	Profil preklopa (4 21)		6,91	19,52	30,06

PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 500	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm)	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil rama (501)				
	Profil rama (503)				
	Profil krila prozora i balkonskih vrata (510)				
	Profil krila ulaznih vrata (511)				
	Profil stuba (520)				

PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 600	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm) <sup>2</sup>	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil rama (601)		11,53	52,043	80,217
	Profil rama (603)				
	Profil krila prozora i balkonskih vrata (610)		10,6	42,08	70,4
	Profil krila ulaznih vrata (611)		13,79	111,47	100,2
	Profil krila ulaznih vrata (612)		14,44	119,86	102,7



PROFIL	NAZIV PROFILA SISTEM ROLOPLAST 600 I POMOĆNI PROFILI	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm) <sup>2</sup>	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil stuba rama i krila (620)		11,215	52,94	73,15
	Profil stuba rama i krila (622)				
	Profil preklopa (6 21)		7,81	20,73	39,63
	Profil produžetka rama (402)		2,725	4,16	3,15
	Profil ugaone spojnice 90° (440)		8.28	63,24	63,24
	Profil podešavajuće ugaone spojnice (450)		4,73	37,03	30,88
	Profil cevi podešavajuće ugaone spojnice (460)		4,9	37,295	37,295

PROFIL	NAZIV PROFILA	MASA g/m	POVRŠINA POPREČNOG PRESEKA A (cm <sup>2</sup> )	MOMENT INERCIJE ZA x OSU I <sub>x</sub> (cm <sup>4</sup> )	MOMENT INERCIJE ZA y OSU I <sub>y</sub> (cm <sup>4</sup> )
	Profil čeličnog ojačanja za profile: 810 (232523)				
	Profil čeličnog ojačanja za profile: 301,310,321, 401,403,410,421, 501,503,510,520 i 810 (253025)				
	Profil čeličnog ojačanja za profile : 601, 603, 610, 801,802,803 i 811 (273327)				
	Profil čeličnog ojačanja za profile : 320 (291929)				
	Profil čeličnog ojačanja za profile : 420,620 i 621 (381938)				
	Profil čeličnog ojačanja za profile: 311,411,511,611,612 i 812 (493749)				

## **4. KONSTRUKTIVNE KOMBINACIJE, SEČENJE PROFILA I DIMENZIJE STAKLA**

U ovom poglavlju su date dimenzije sklopova, sečenje profila i dimenzije stakla.

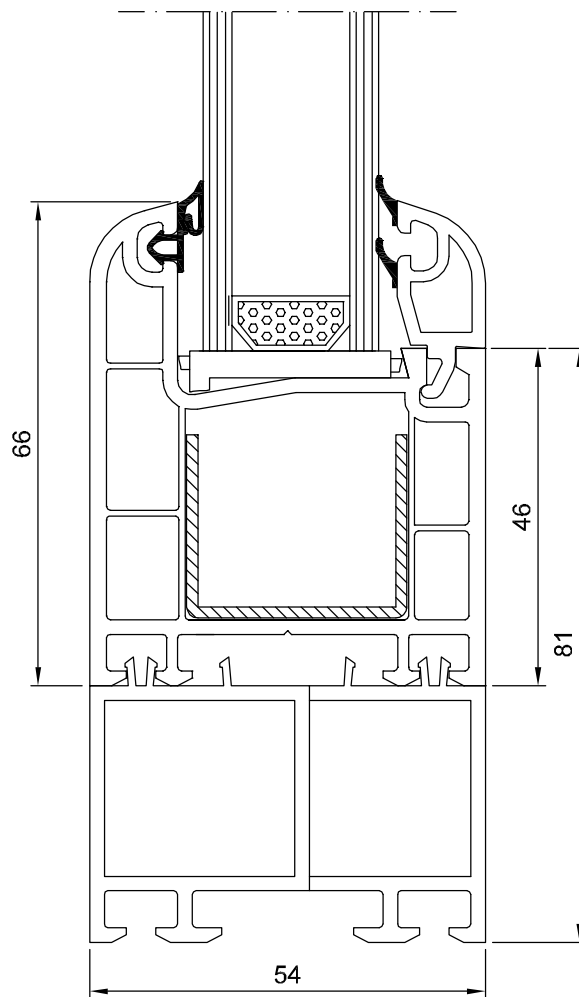
prikazani su najčešći sklopovi koji se koriste u građevinarstvu. Obično se sklopovi sastoje od profila rama, profila krila, lajsne za staklo, stakla i čeličnog ojačanja.

Na veoma jednostavan način, na samom crtežu (poprečni i vertikalni presek) su prikazane osnovne dimenzije. Ukoliko se zadaju dimenzije otvora, odnosno prozora veoma jednostavno, kako je prikazano na crtežu mogu se odrediti karakteristične dimenzije kao što su (širina i visina krila, širina i visina lajsne za staklo, širina i visina stakla). Praktično takav crtež predstavlja mini krojnu sliku (može se vrlo jednostavno sagledati potreban materijal za izradu istog). Na crtežima se pojavljuje interesantno projektovan profil zidnog podmetača (ima funkciju vezivanja okapnice i unutrašnje podprozorske daske). Nudimo varijantu i okapnice i unutrašnje prozorske daske od tvrdog PVC-a. Na ovaj način je eliminisan problem pocinkovanog lima spolja i njegova eventualna korozija. Može se jednostavno uočiti veoma široki dijapazon kombinacija koji je u funkciji objekta kao i želja kupaca.

Najčešća kombinacija su fiksni, jednokrillni, dvokrillni, dvokrillni sa stubom prozori, kao i odgovarajuća balkonska vrata.

Na crtežima kod ulaznih vrata možete primetiti da se profil krila razlikuje od profila krila balkonskih vrata, širi je, zbog mogućnosti smeštaja odgovarajuće brave. Crteži su postavljeni postepeno od jednostavnog fiksnog prozora do ulaznih vrata. Na ulaznim vratima je montiran prag koji se odlikuje svom jednostavnošću kod izrade i ugradnje.

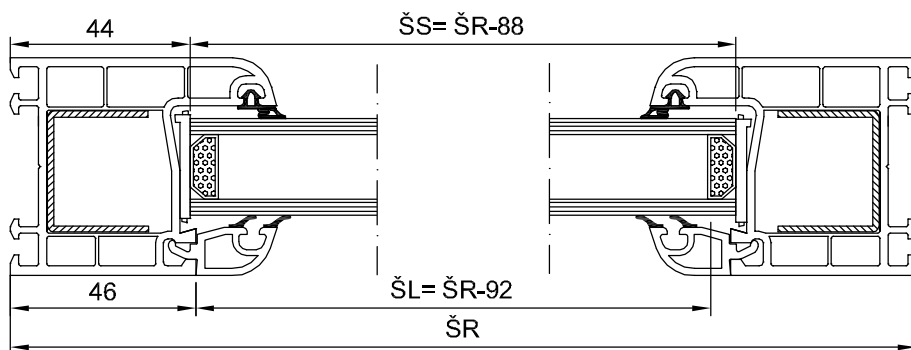
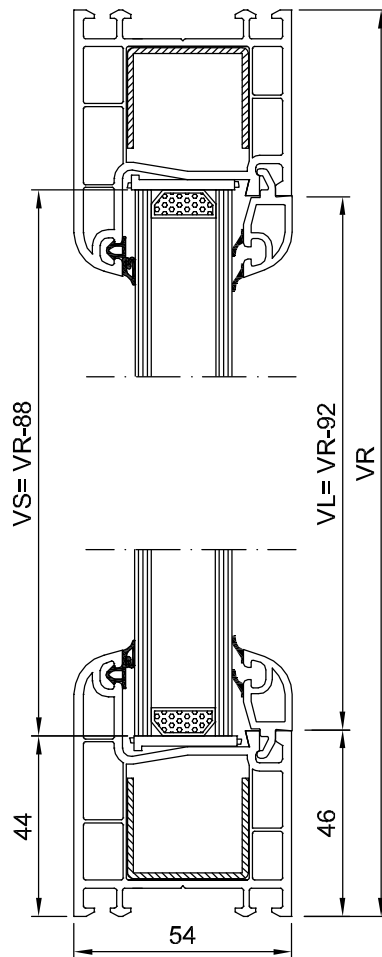
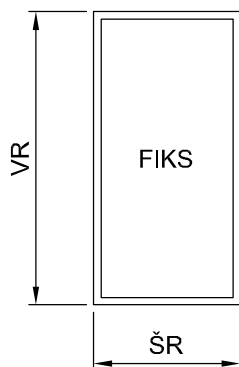
PRESEK PROZORA  
NASTAVAK RAMA - RAM  
SISTEM 300



# FIKSNI PROZOR SISTEM 300

## LEGENDA

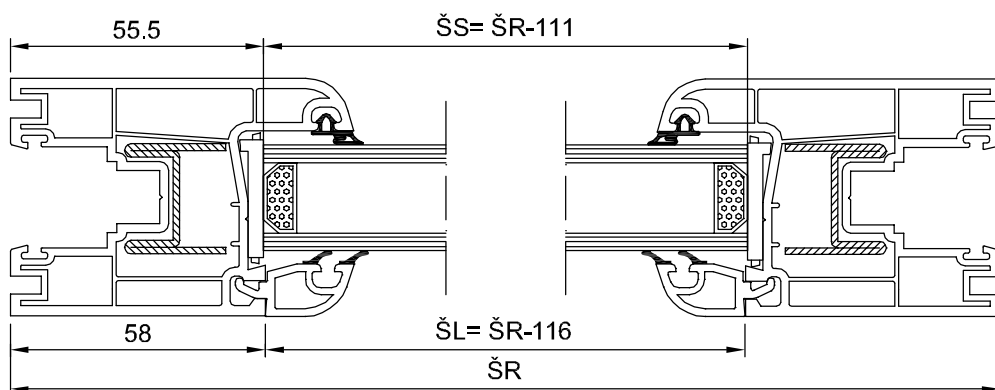
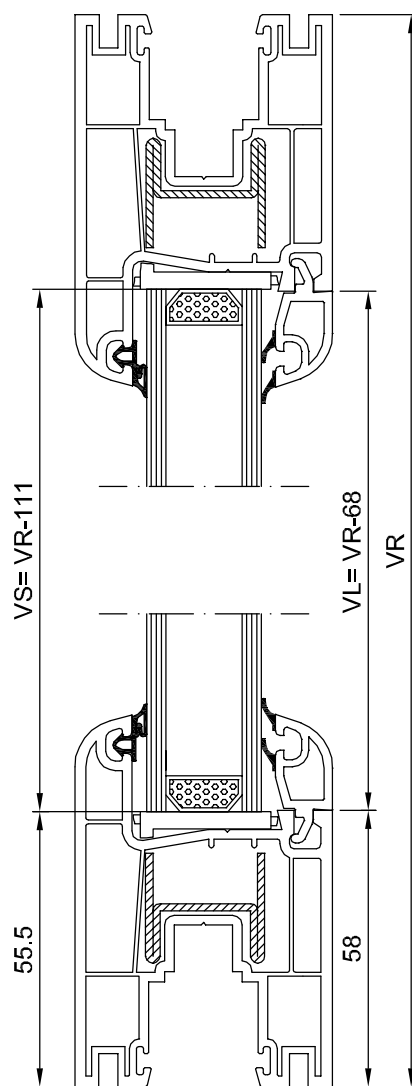
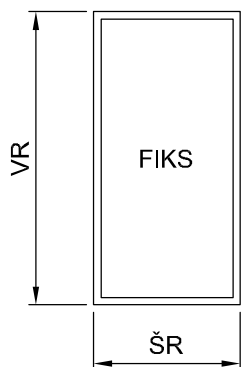
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 VS= VISINA STAKLA



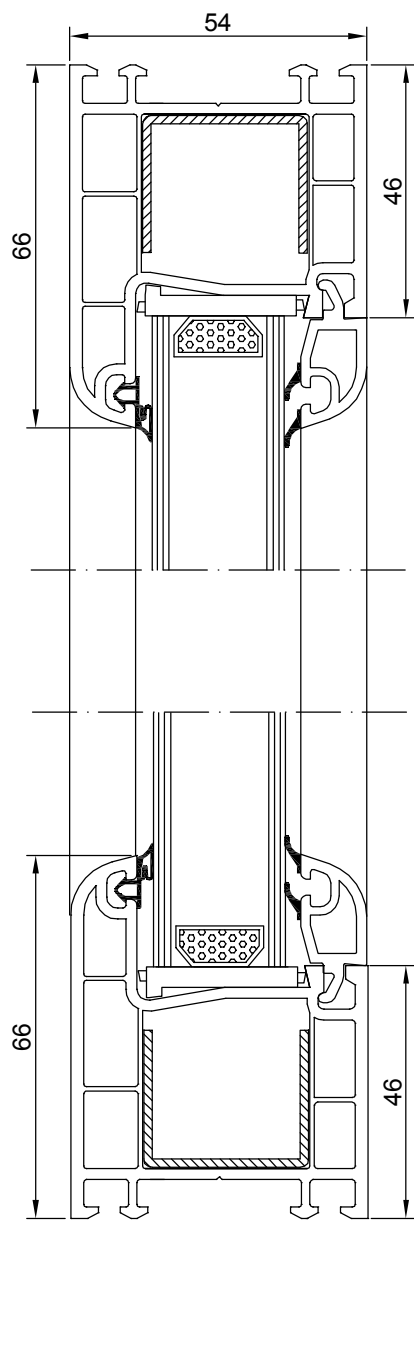
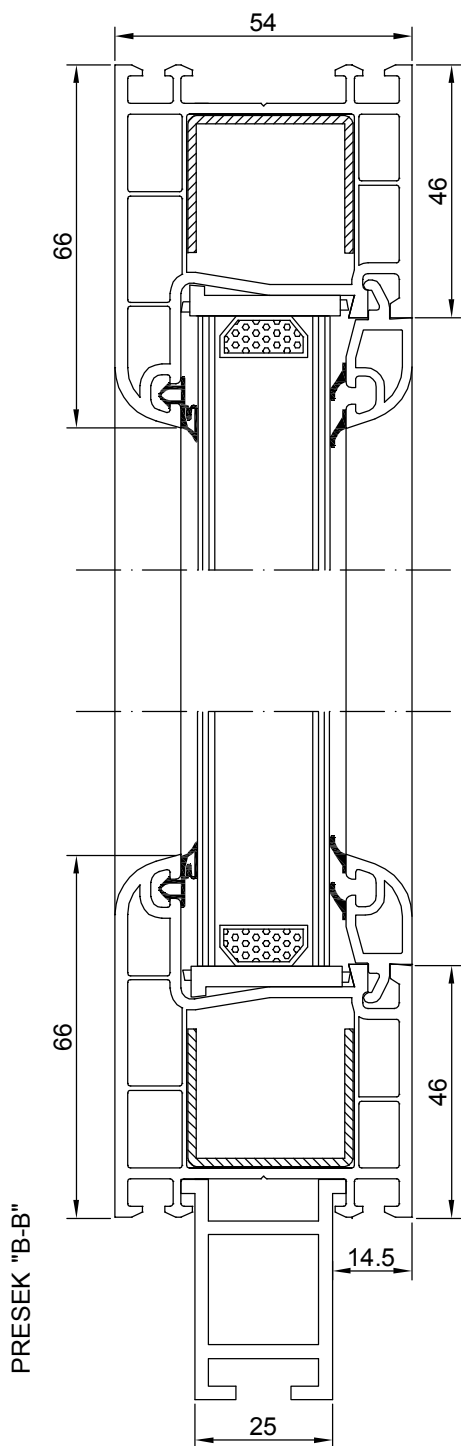
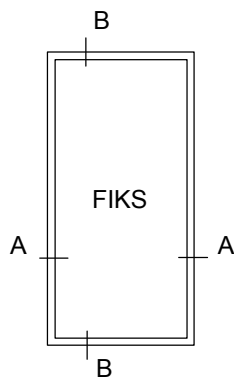
# FIKSNI PROZOR SA PROSIRENIM RAMOM SISTEM 300

## LEGENDA

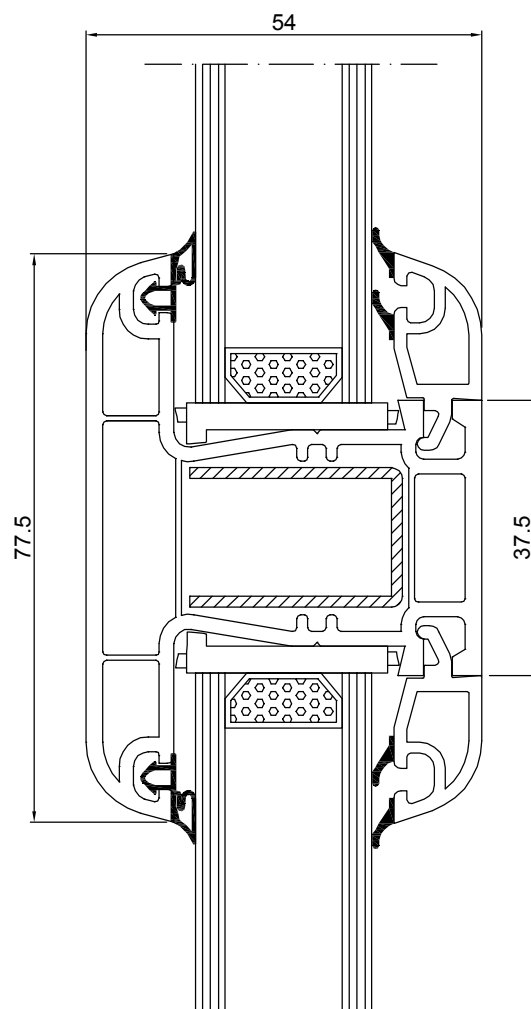
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# FIKSNI PROZOR SISTEM 300



# PRESEK PROZORA STUB - LAJSNA ZA STAKLO SISTEM 300

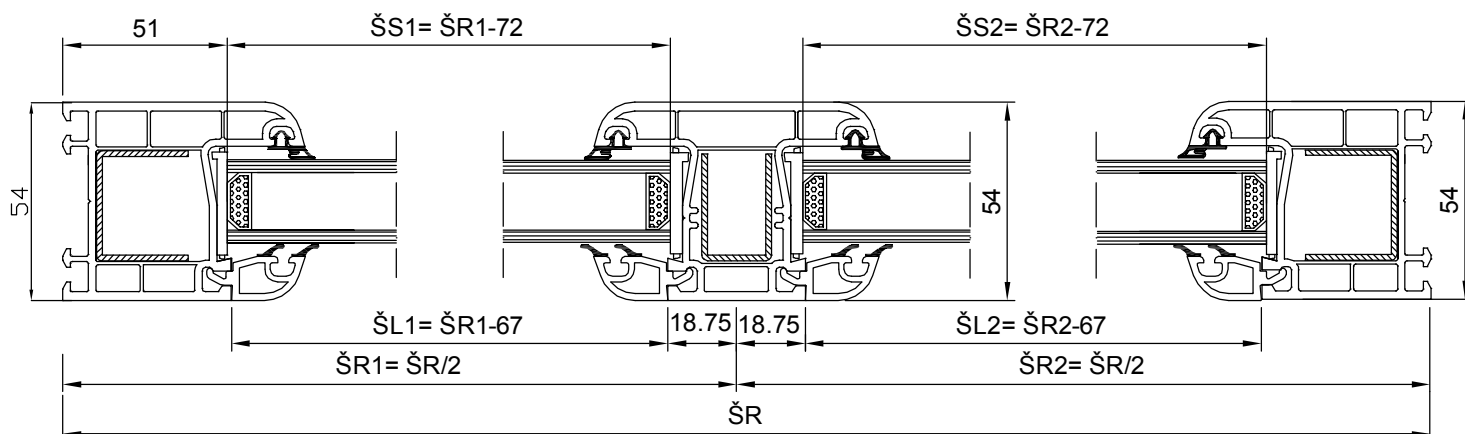
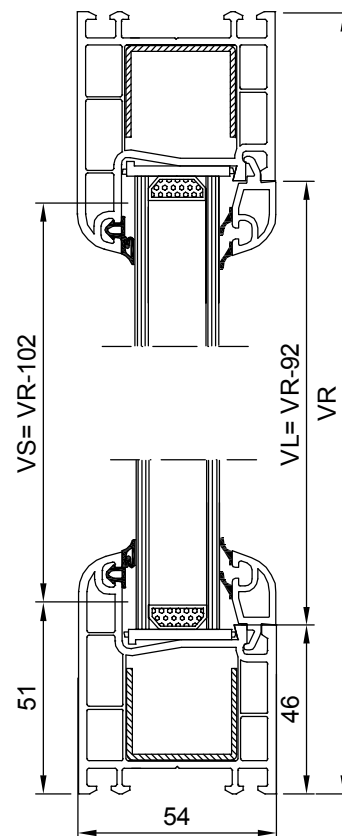
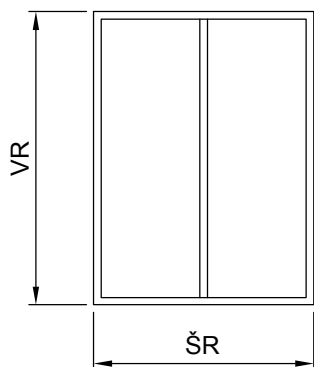




# FIKSNI PROZOR SA STUBOM SISTEM 300

## LEGENDA

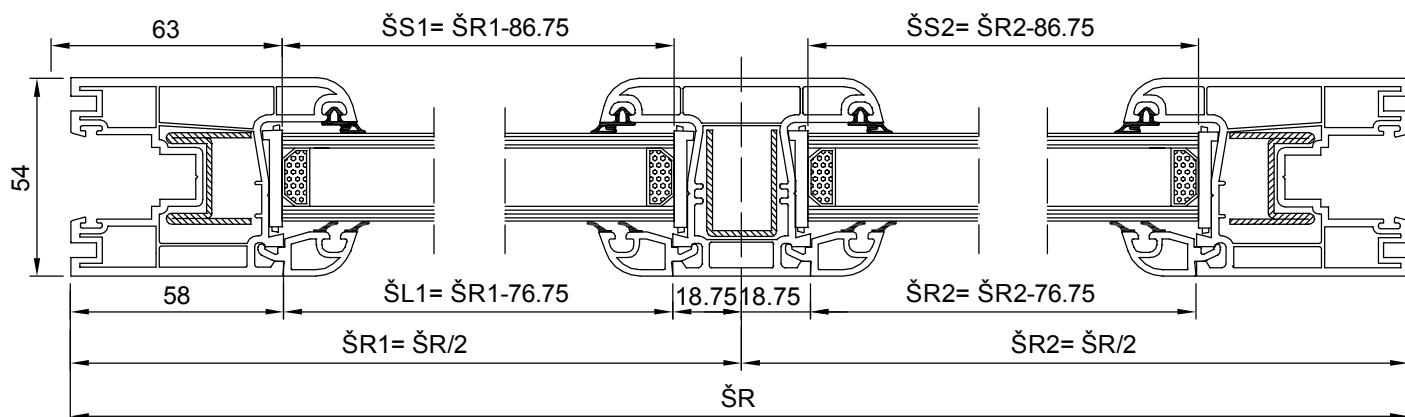
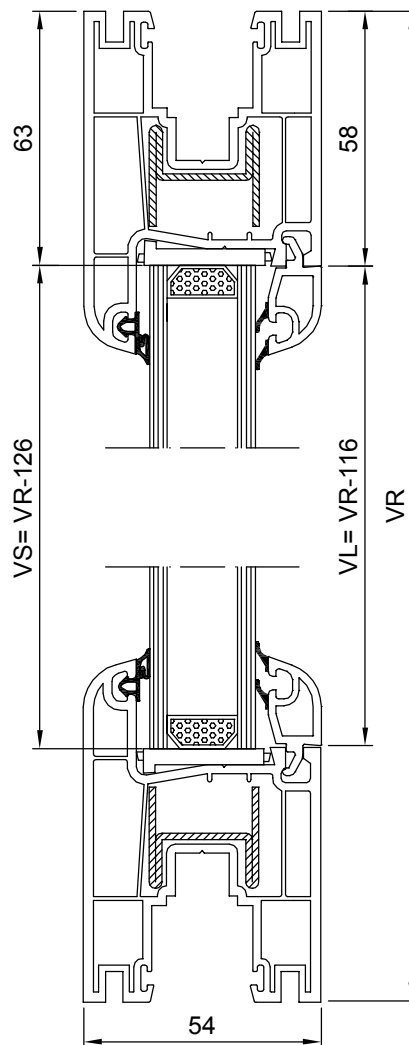
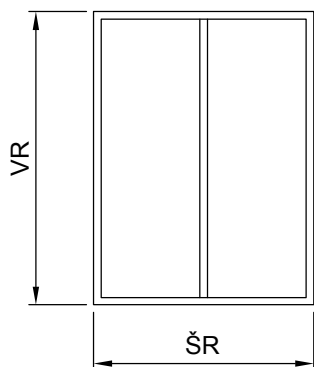
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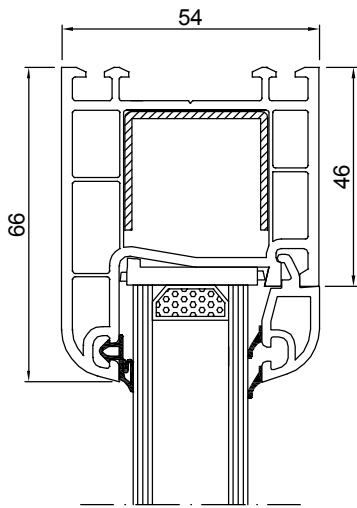
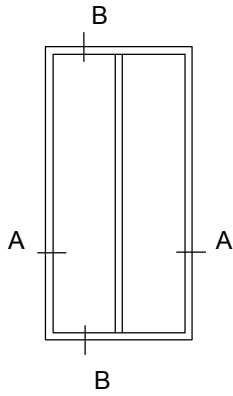
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## LEGENDA

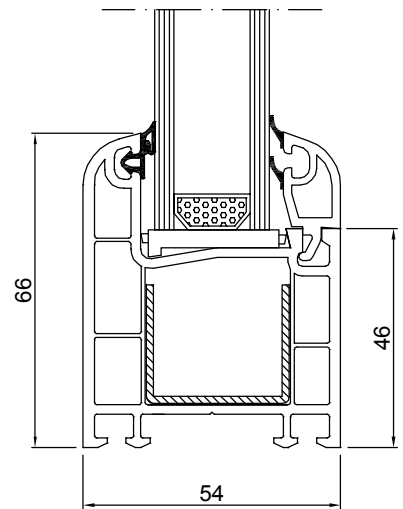
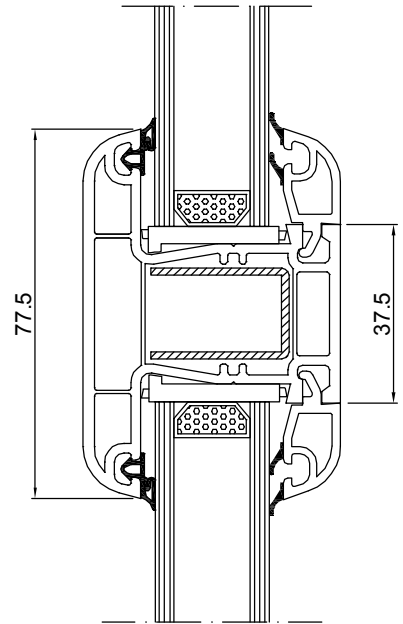
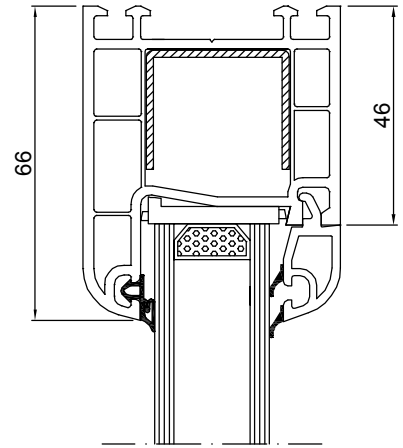
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# FIKSNI PROZOR SA STUBOM SISTEM 300

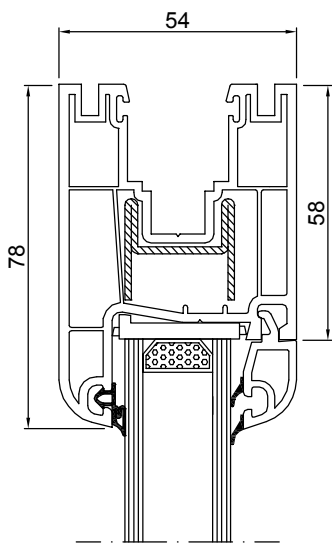
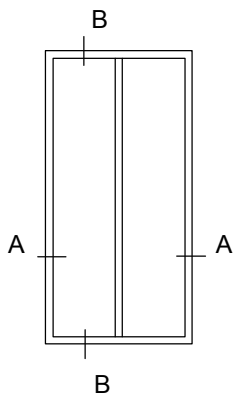


PRESEK "B-B"

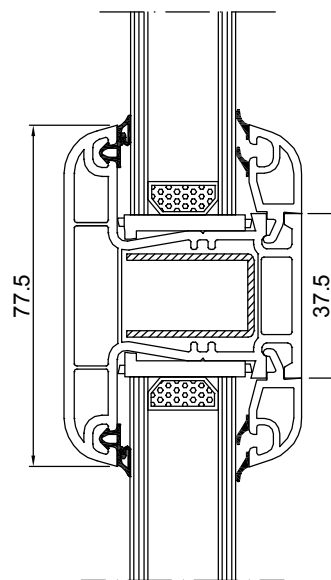
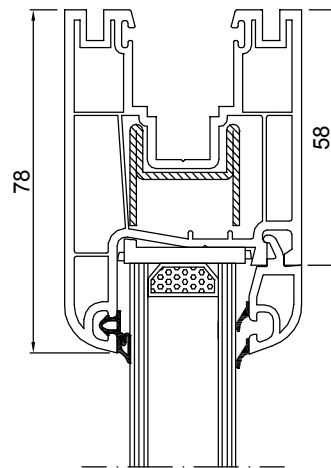
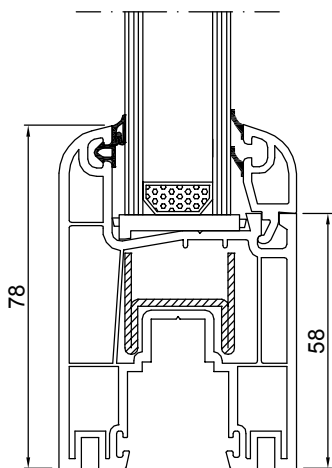


PRESEK "A-A"

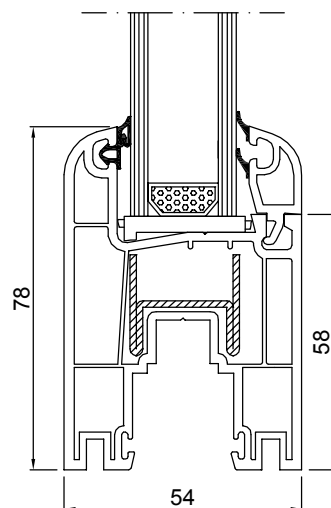
# FIKSNI PROZOR SA STUBOM I PROSIRENIM RAMOM SISTEM 300



PRESEK "B-B"



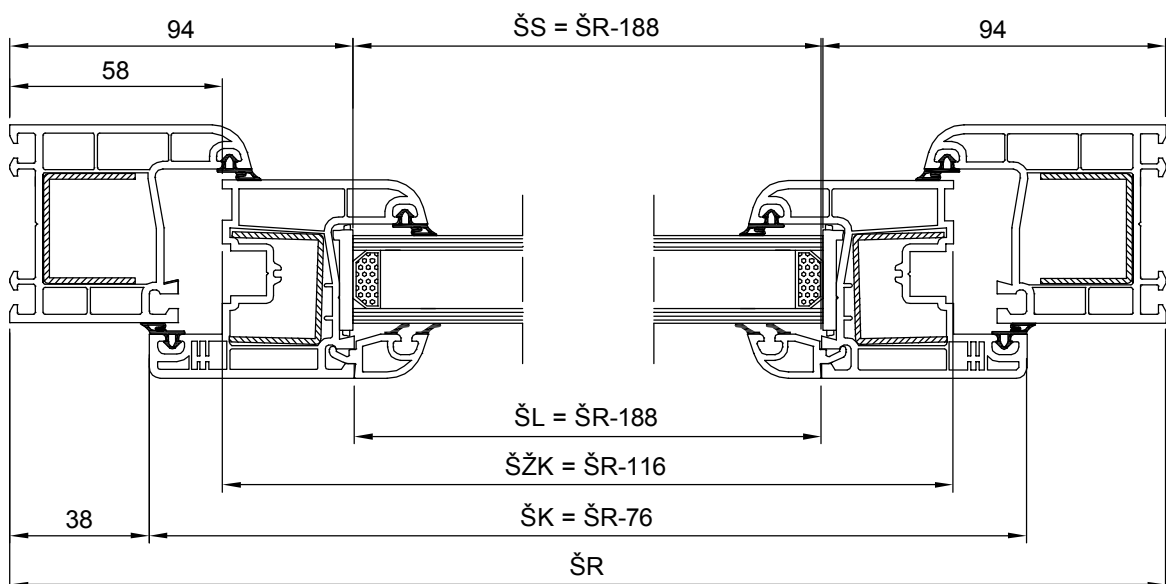
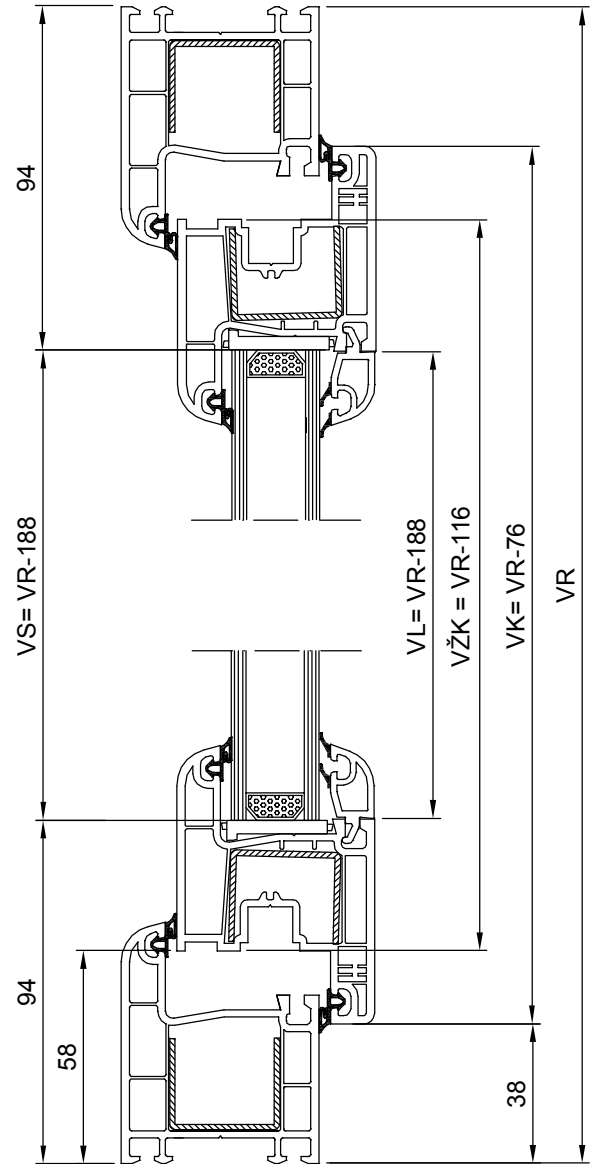
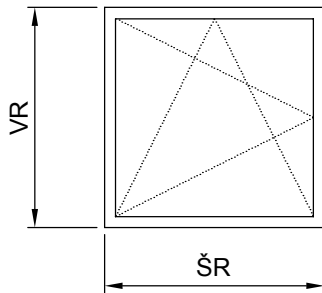
PRESEK "A-A"



# JEDNOKRILNI PROZOR SISTEM 300

## LEGENDA

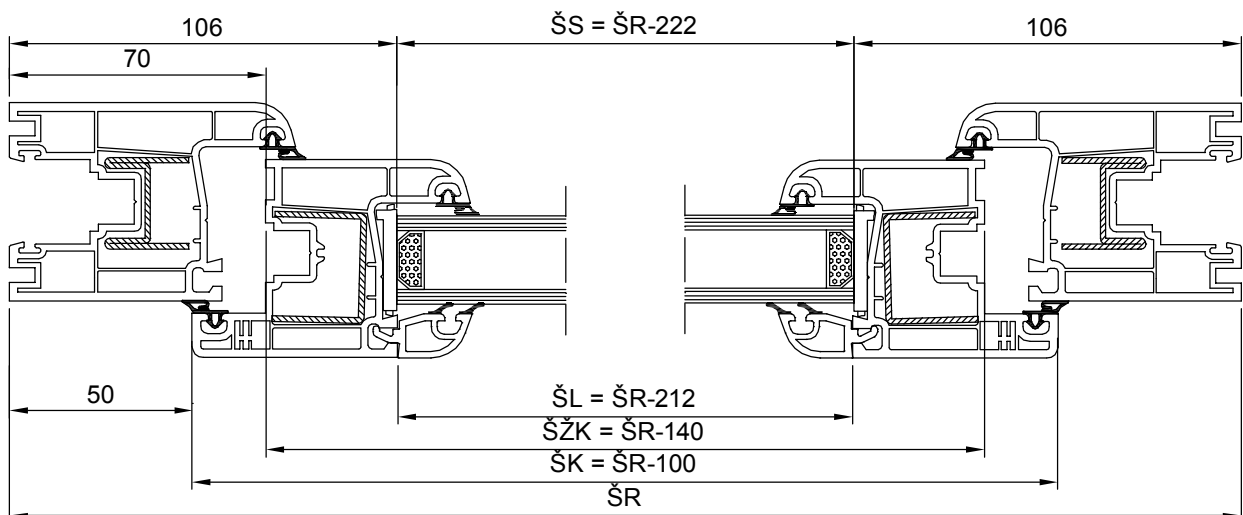
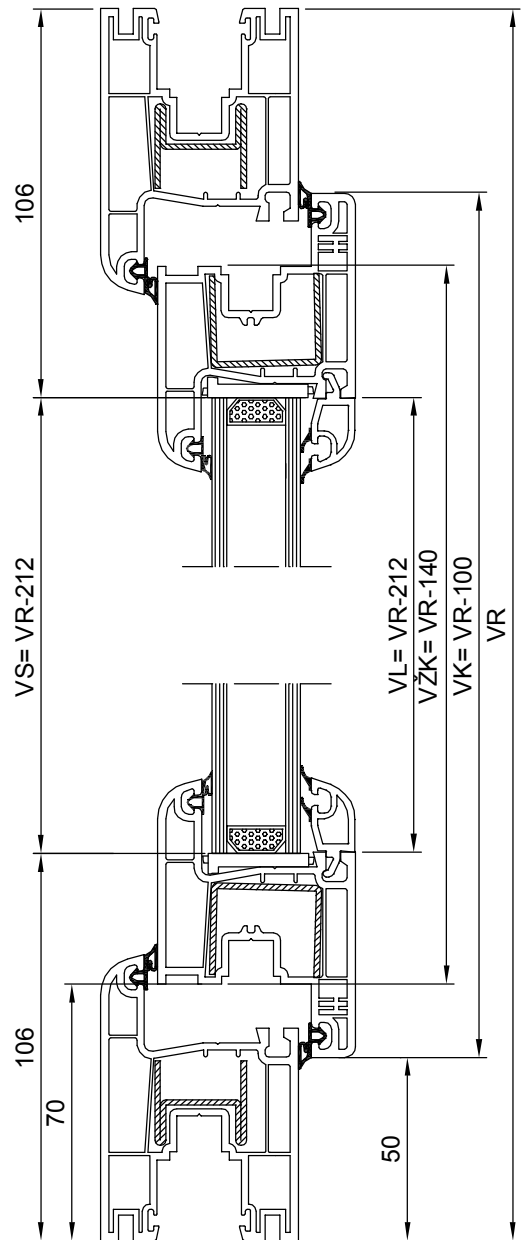
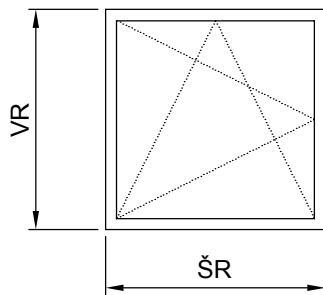
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 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



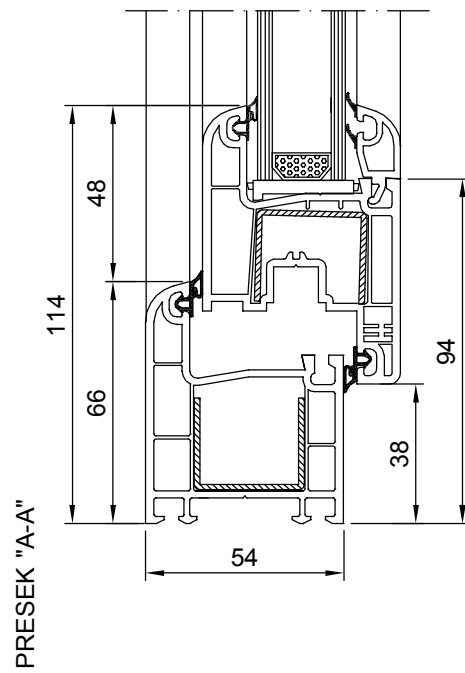
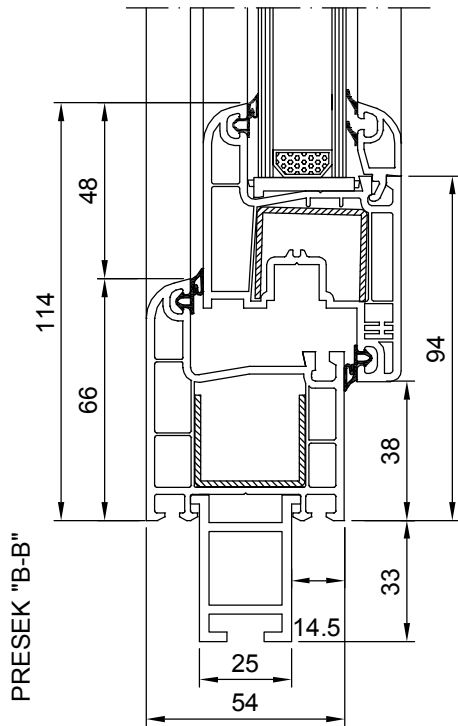
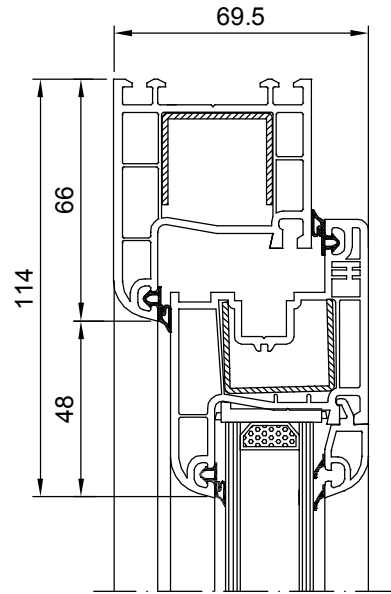
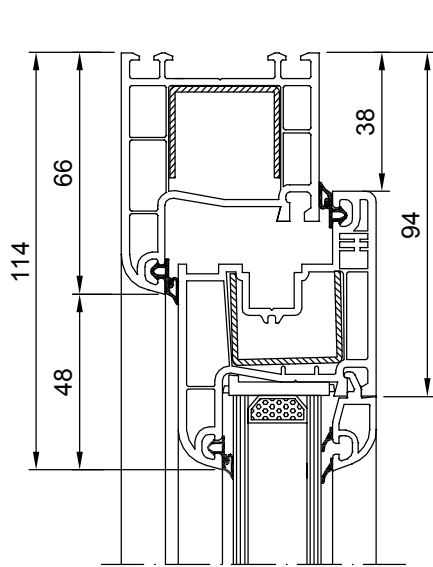
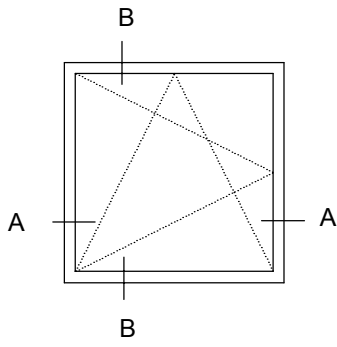
# JEDNOKRILNI PROZOR SA SIRIM RAMOM SISTEM 300

## LEGENDA

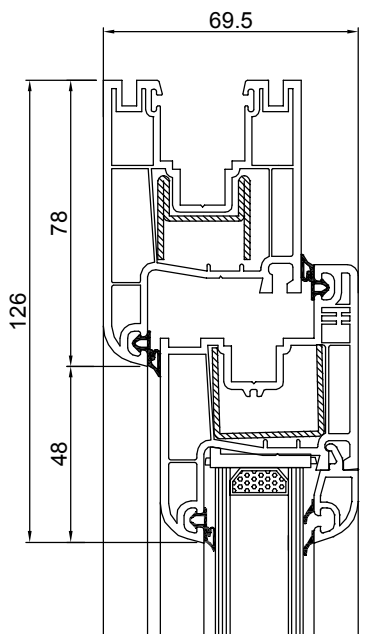
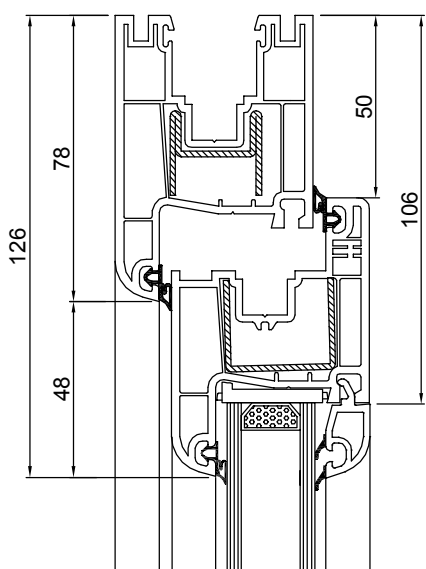
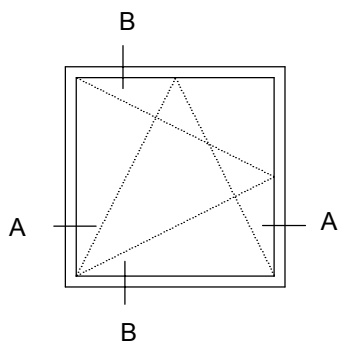
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLEBA KRILA  
 VŽK= VISINA ŽLEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



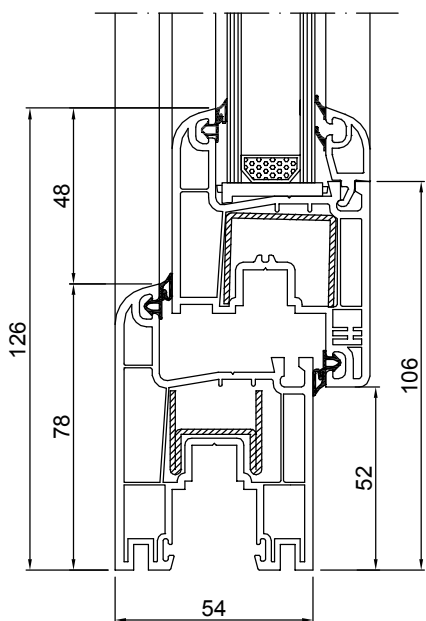
# JEDNOKRILNI PROZOR SISTEM 300



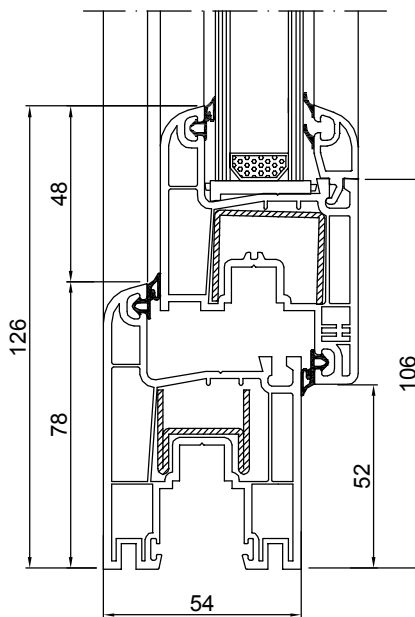
# JEDNOKRILNI PROZOR SA PROSIRENIM RAMOM SISTEM 300



PRESEK "B-B"

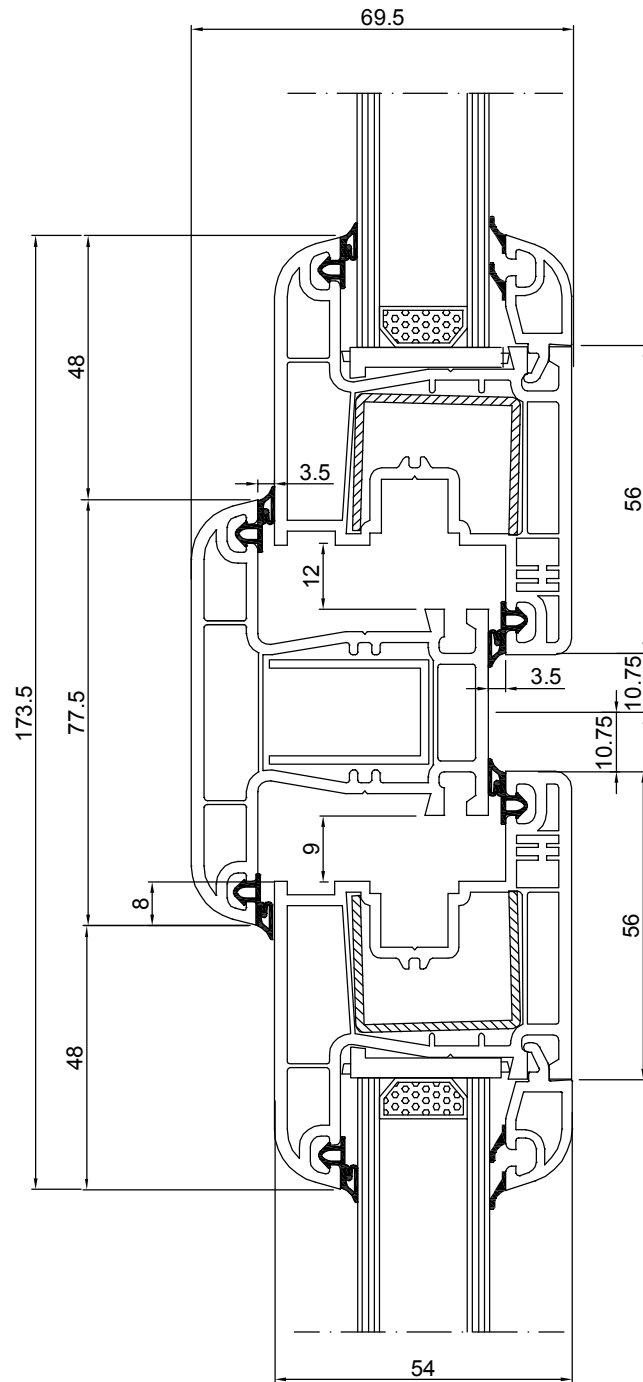


PRESEK "A-A"

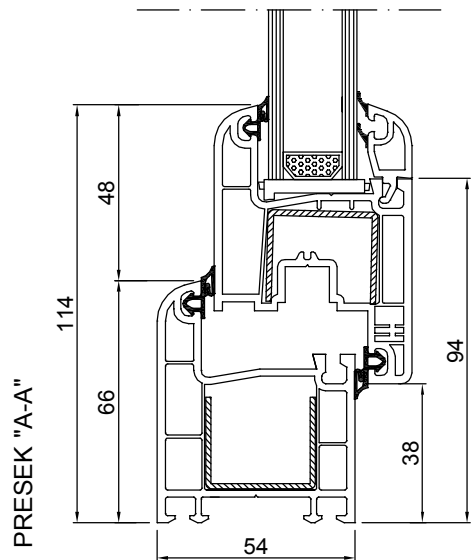
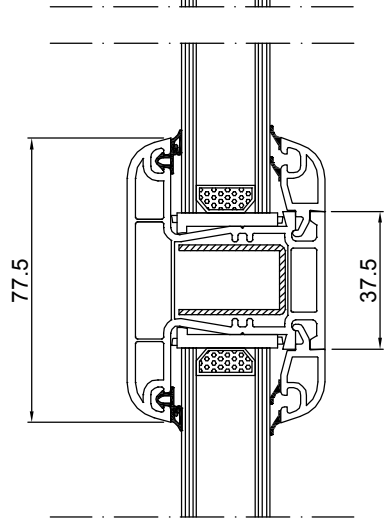
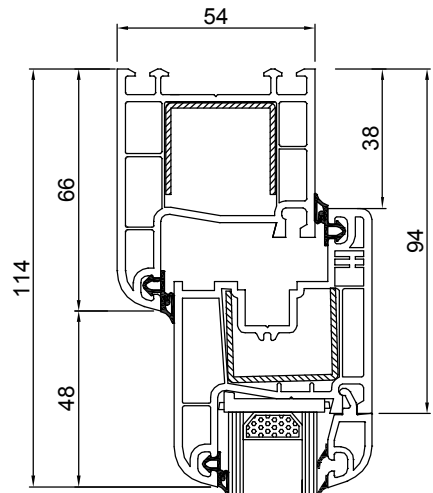
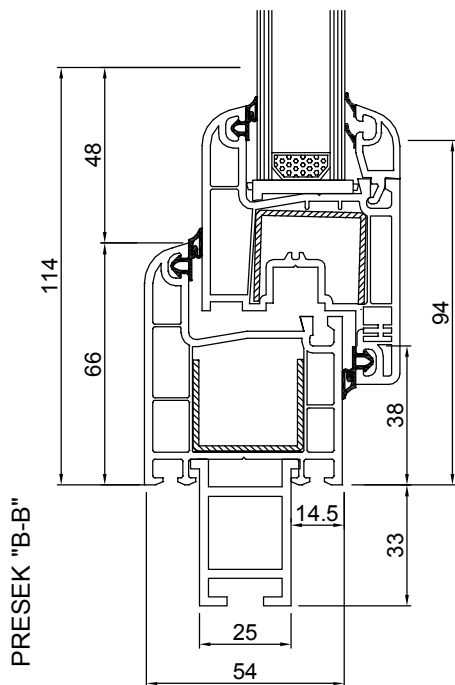
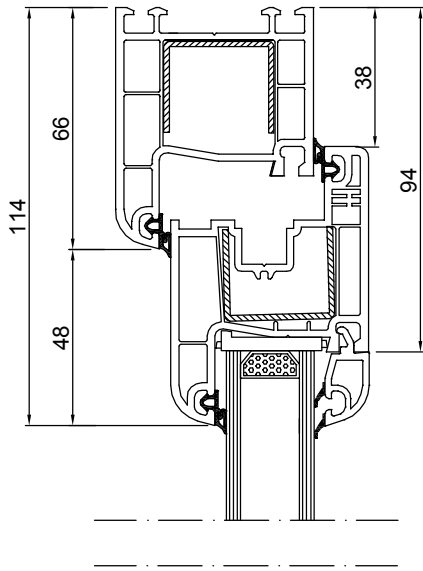
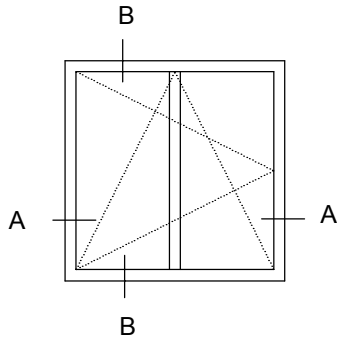




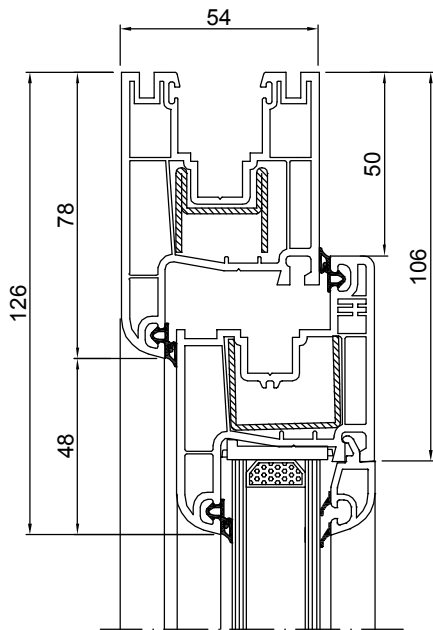
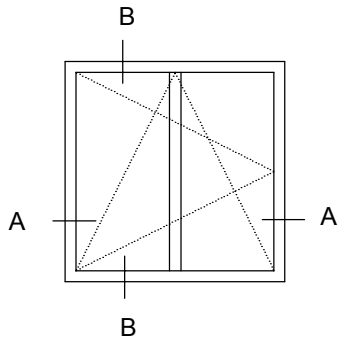
# PRESEK PROZORA KRILO-STUB-KRILO SISTEM 300



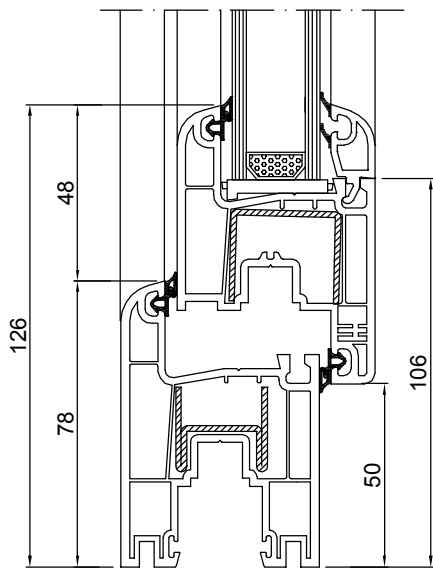
# JEDNOKRILNI PROZOR SA PREČKOM SISTEM 300



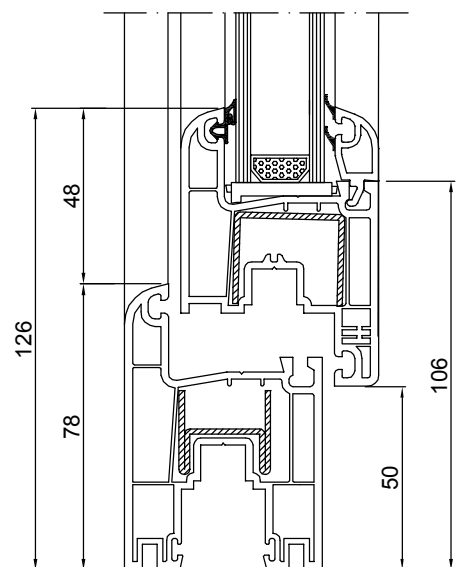
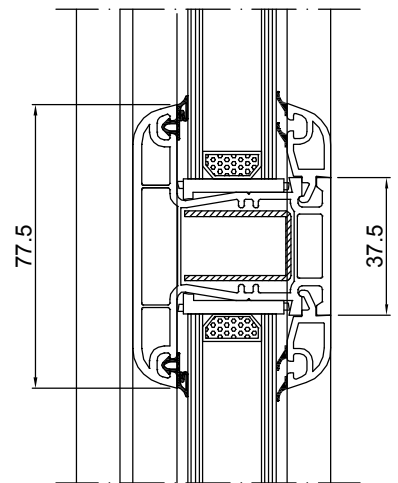
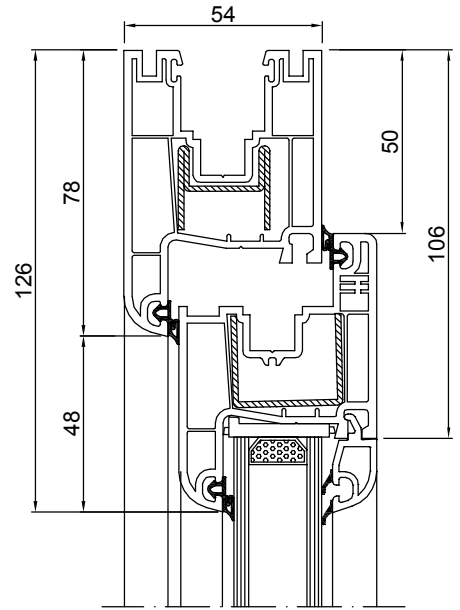
# JEDNOKRILNI PROZOR SA PREČKOM I PROSIRENIM RAMOM SISTEM 300



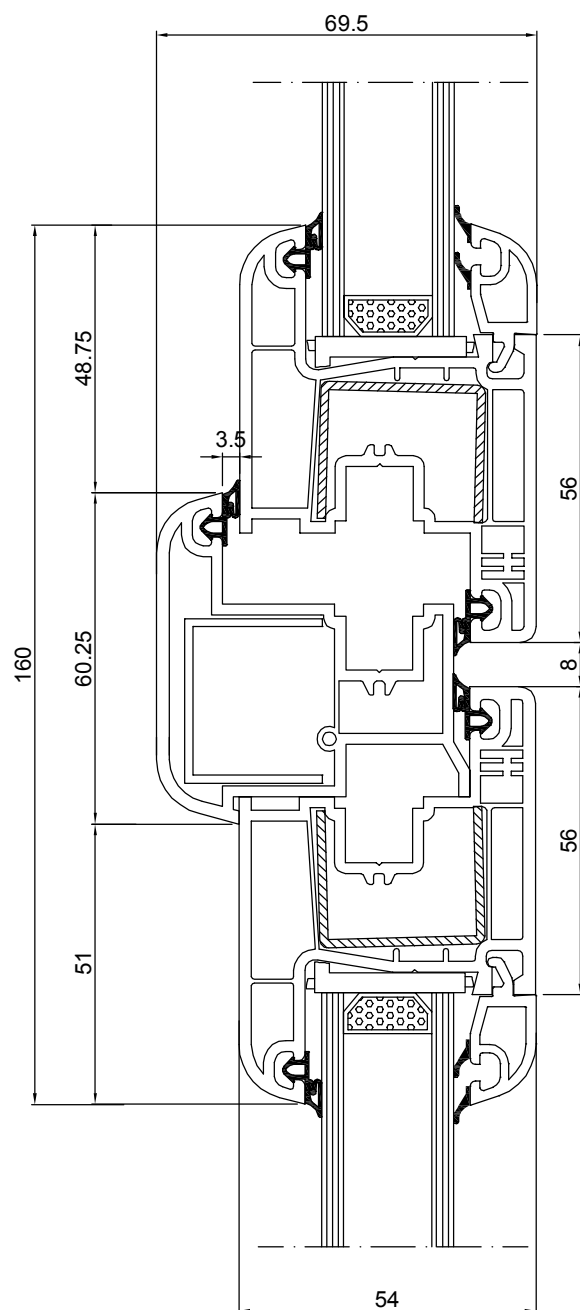
PRESEK "B-B"



PRESEK "A-A"



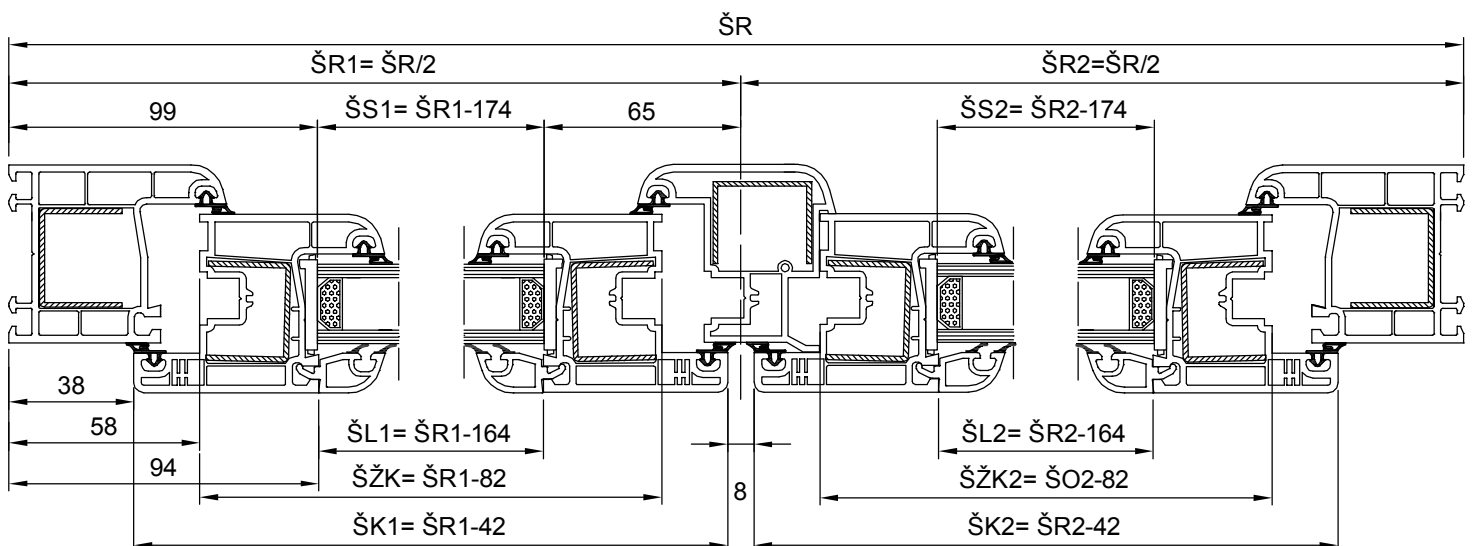
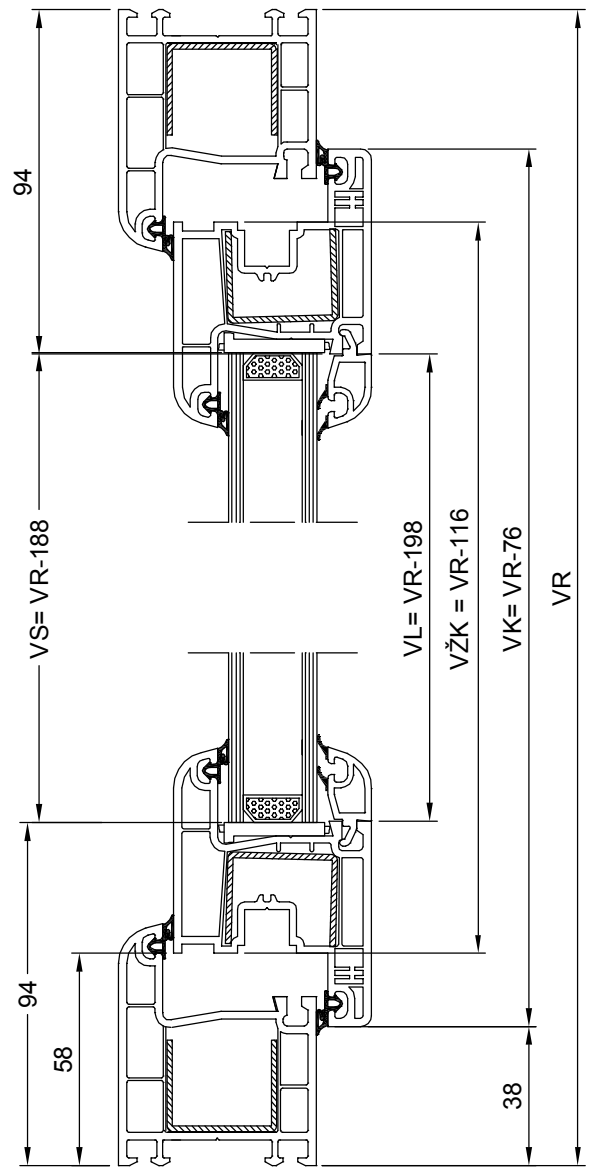
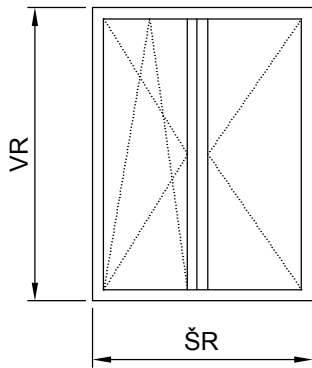
# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 300



# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 300

## LEGENDA

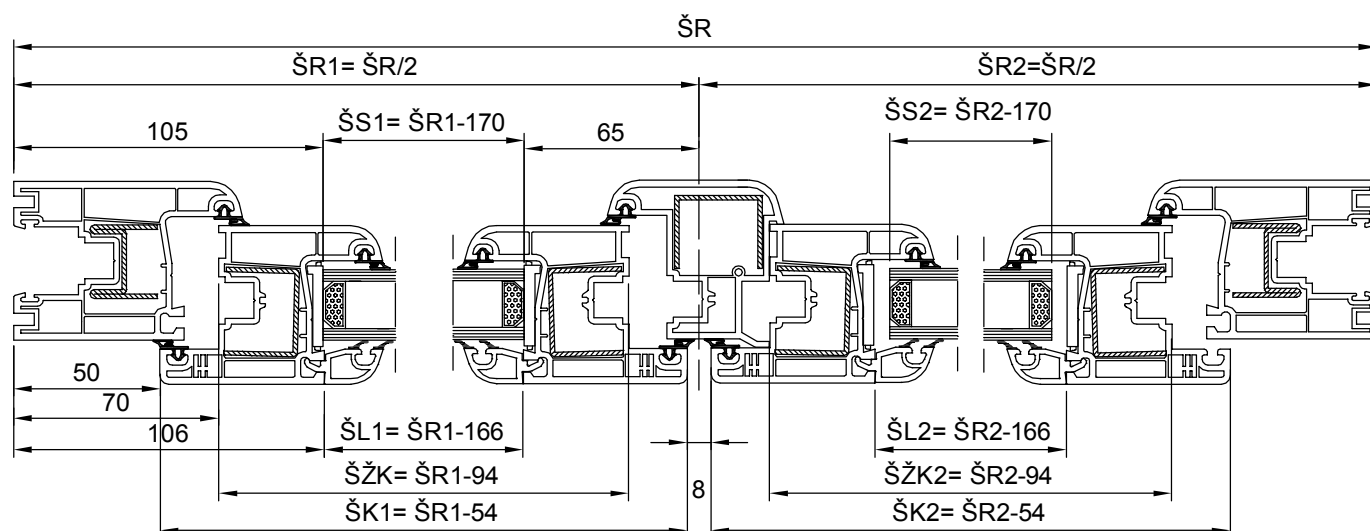
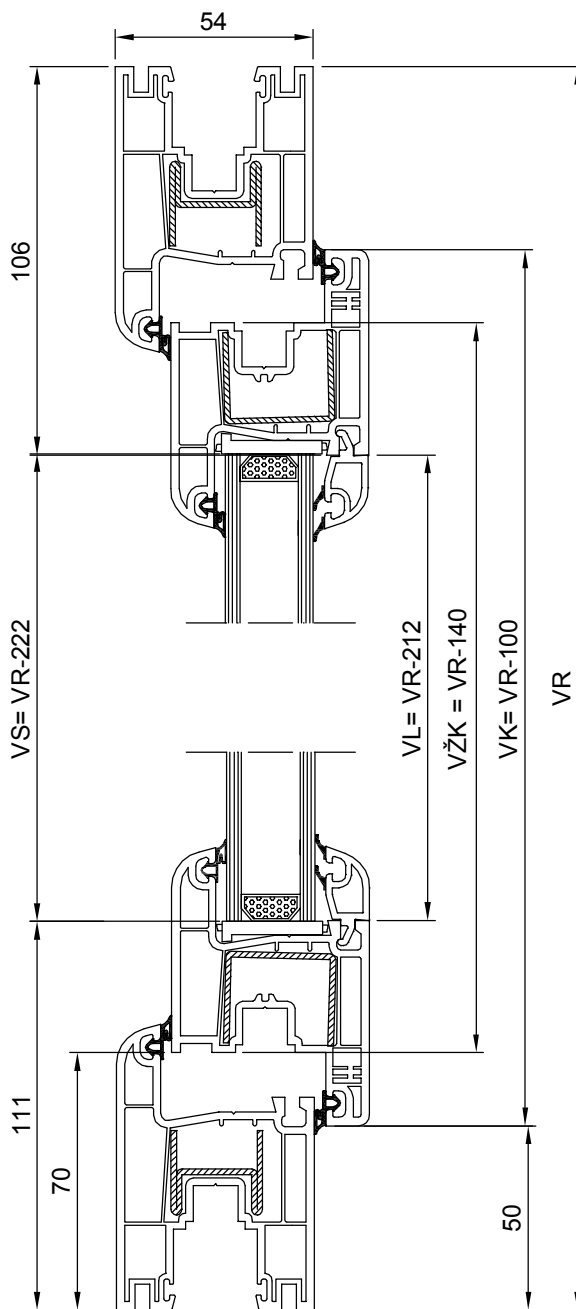
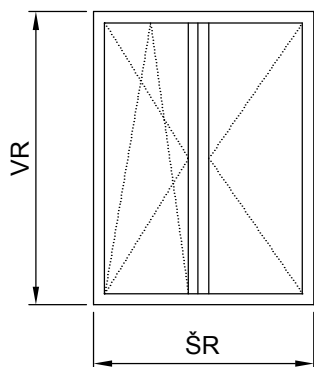
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 VŽK= VISINA ŽLJRBA KRILA  
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 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



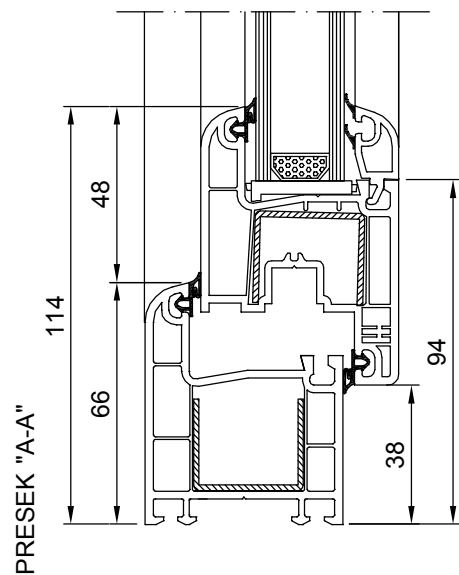
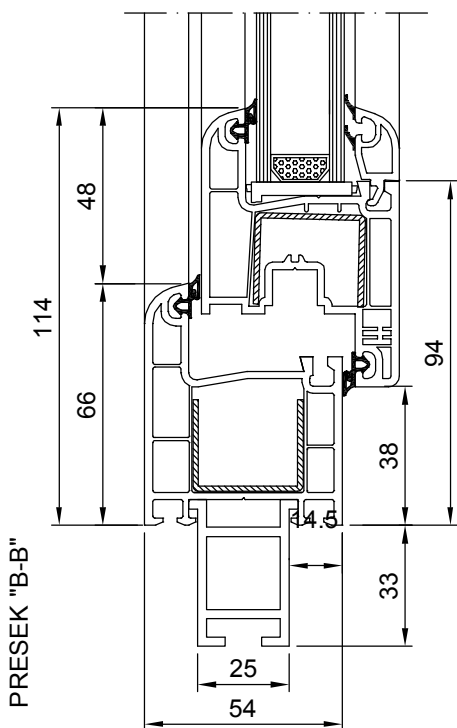
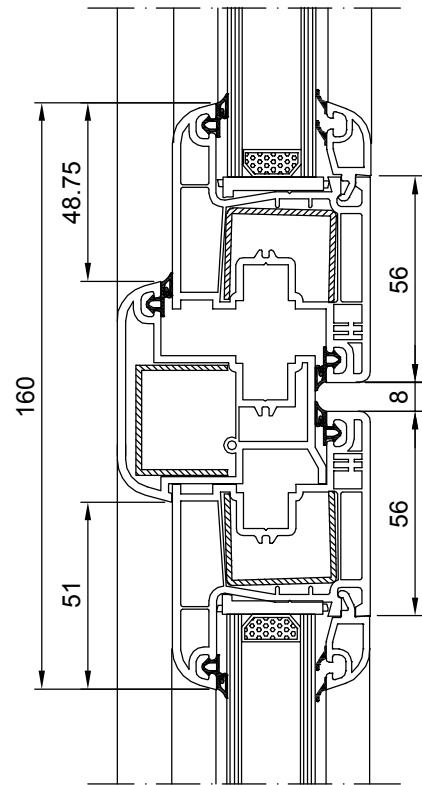
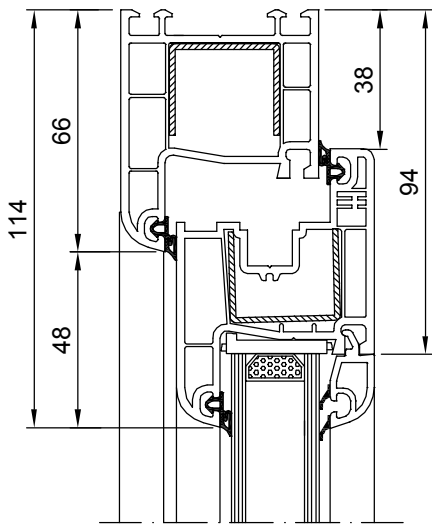
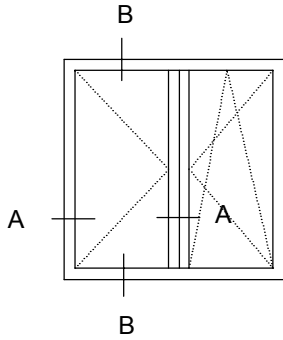
# DVOKRILNI PROZOR SA PREKLOPOM I PROSIRENIM RAMOM SISTEM 300

## LEGENDA

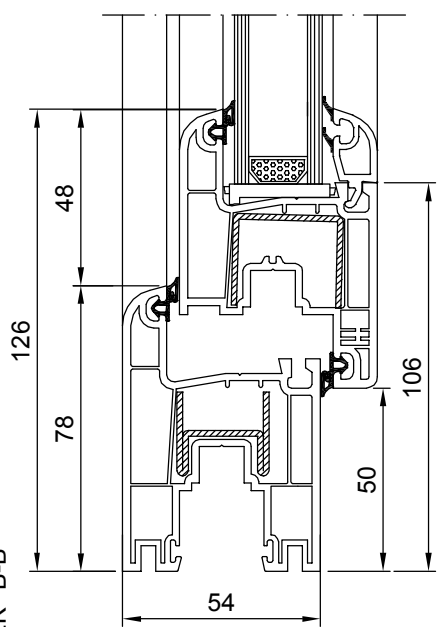
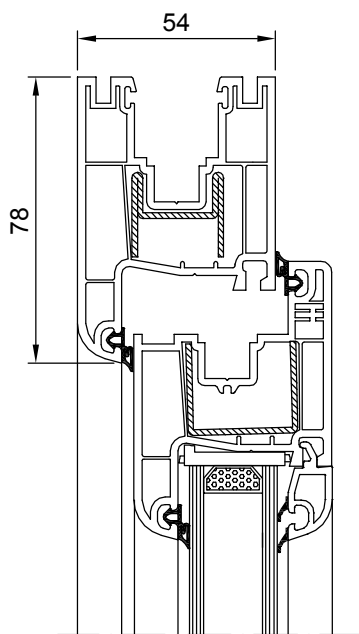
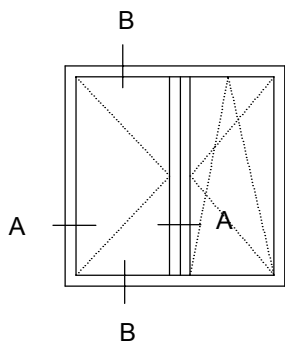
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 VL=VISINA LAJSNE  
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 VS= VISINA STAKLA



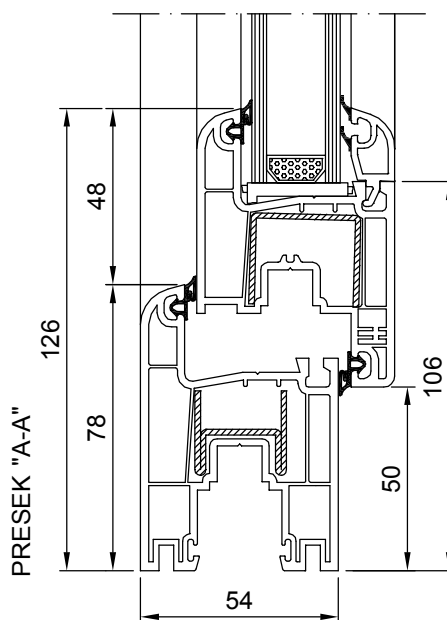
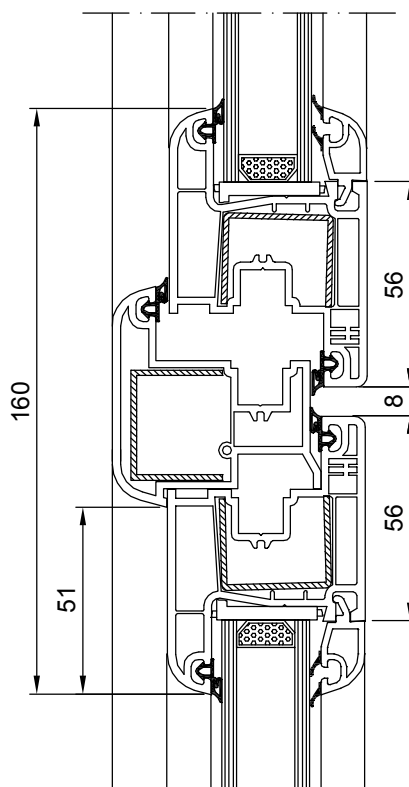
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 300



# DVOKRILNI PROZOR SA PREKLOPOM I PROSIRENIM RAMOM SISTEM 300



PRESEK "B-B"



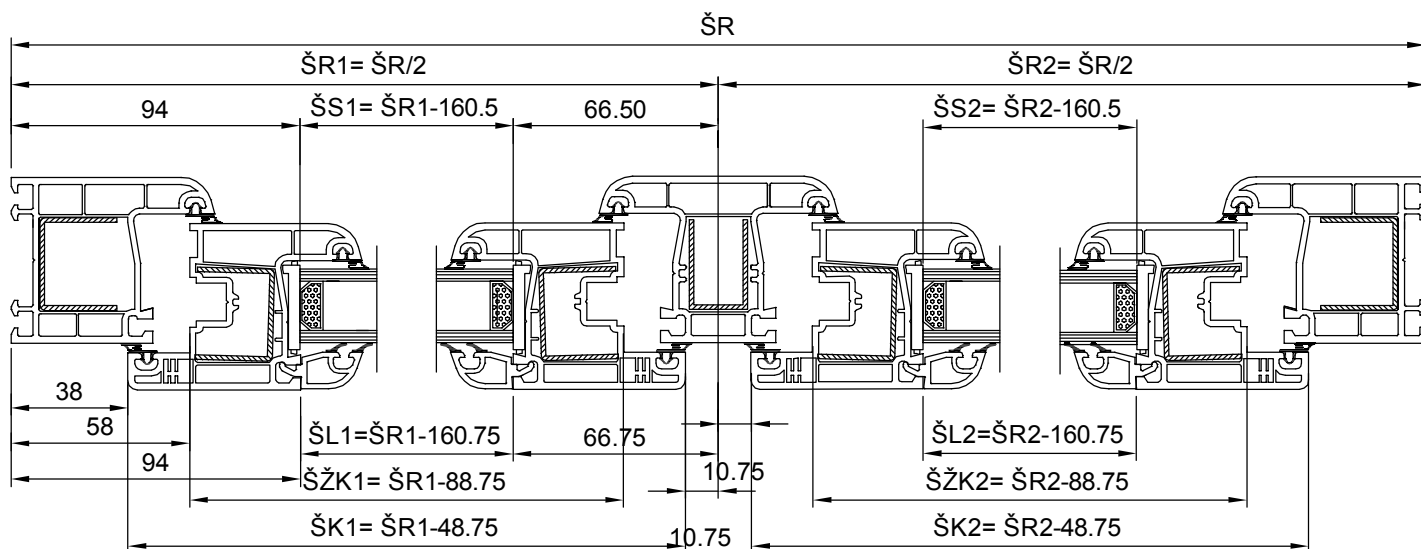
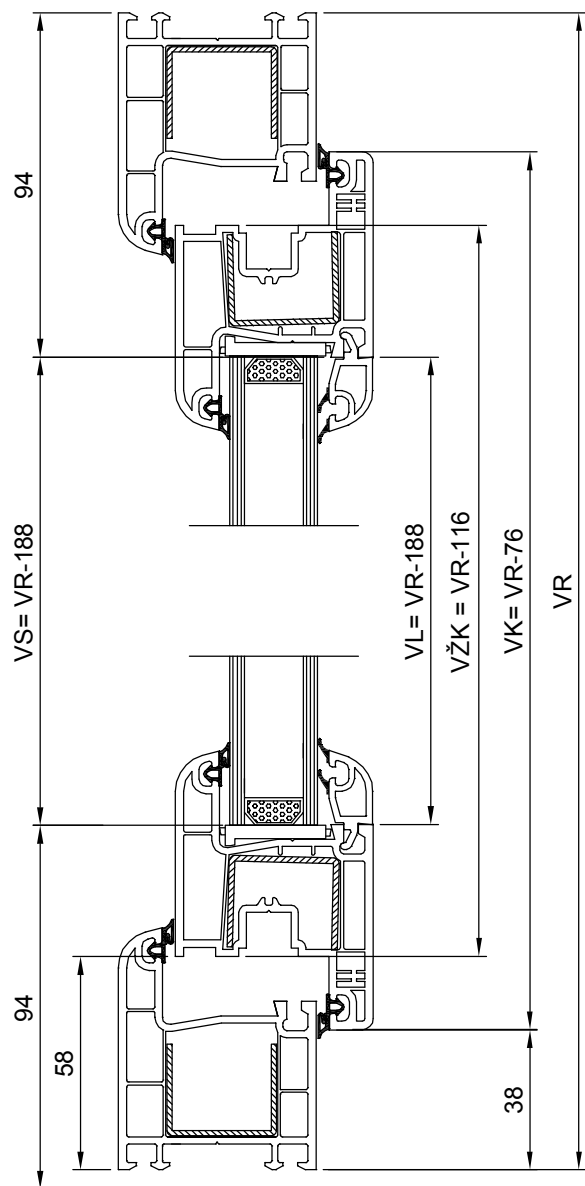
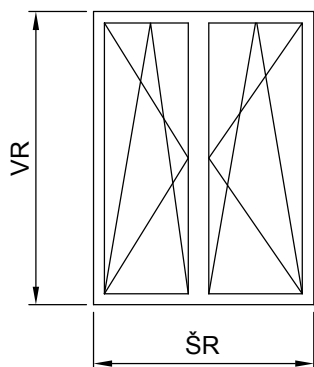
PRESEK "A-A"



# DVOKRILNI PROZOR SA STUBOM SISTEM 300

## LEGENDA

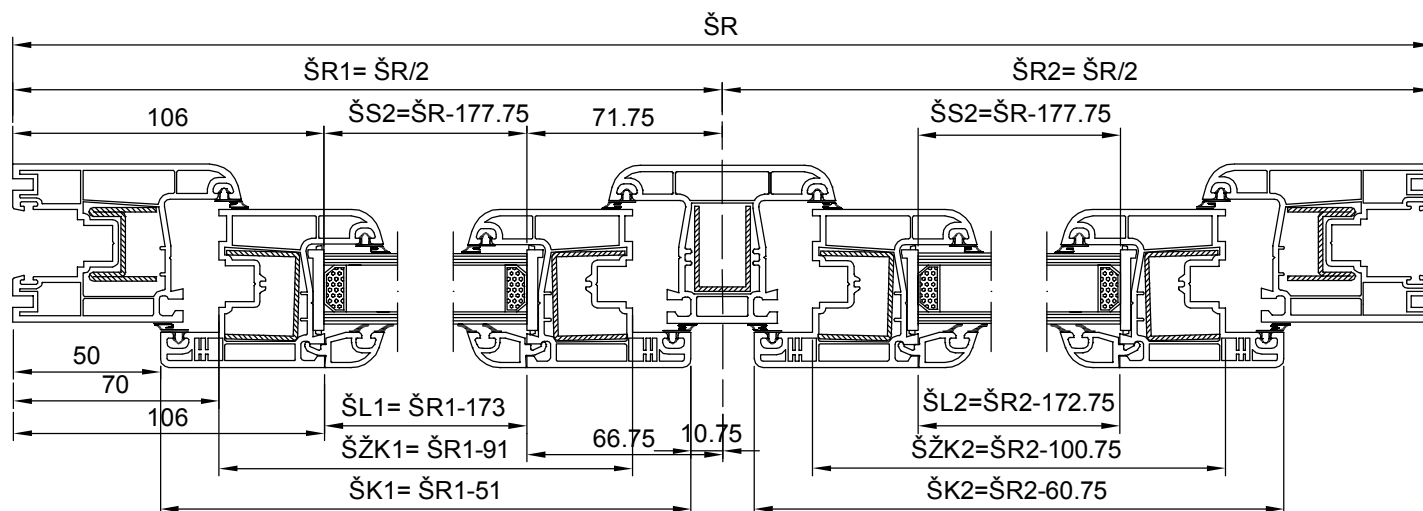
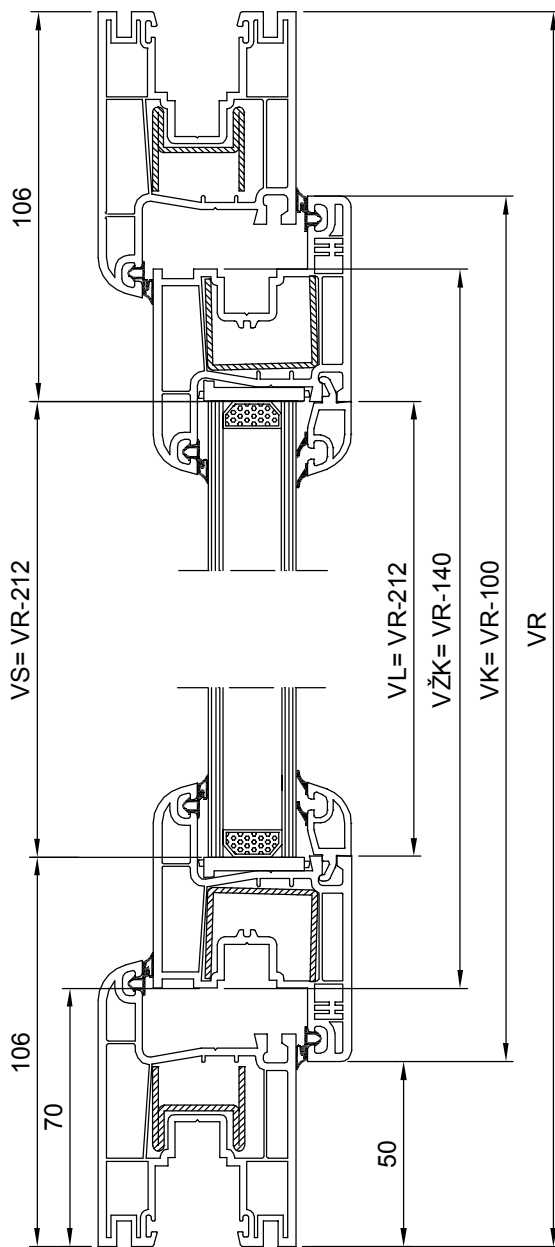
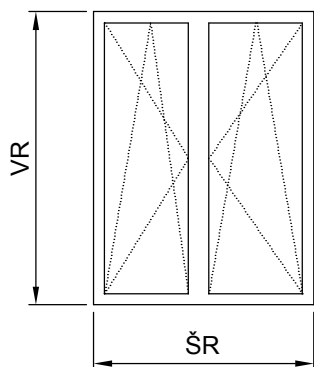
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 VŽK= VISINA ŽLJEBA KRILA  
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 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



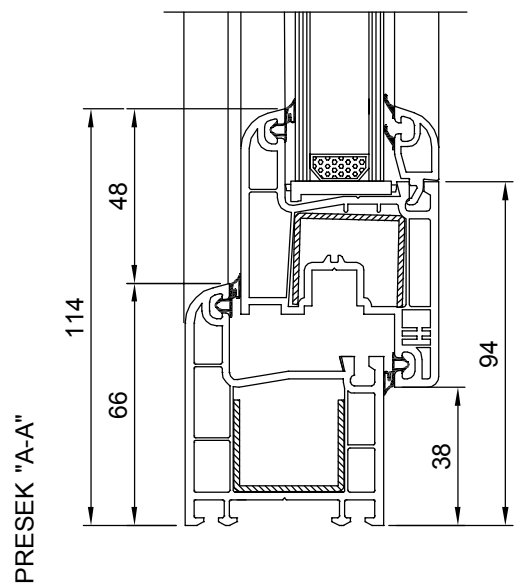
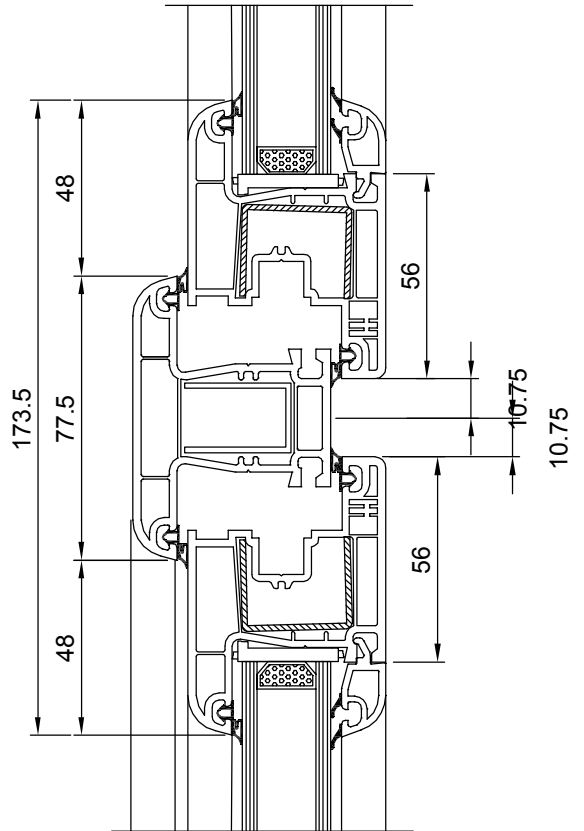
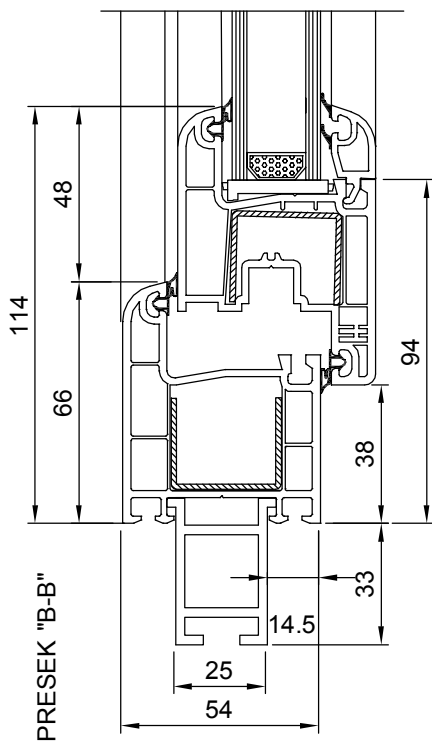
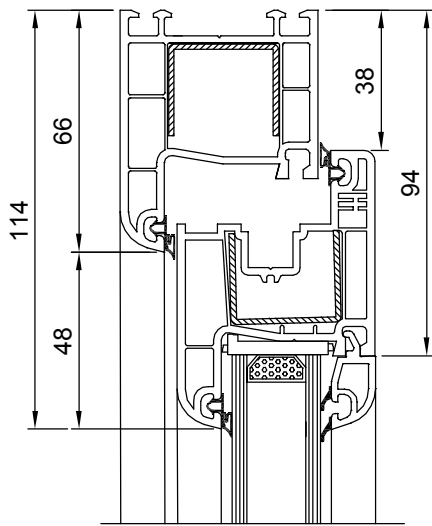
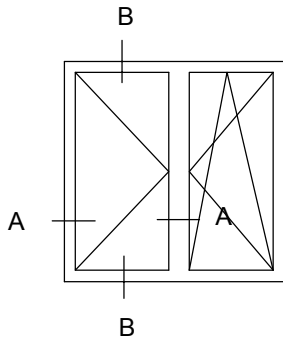
# DVOKRILNI PROZOR SA STUBOM I SIRIM RAMOM SISTEM 300

## LEGENDA

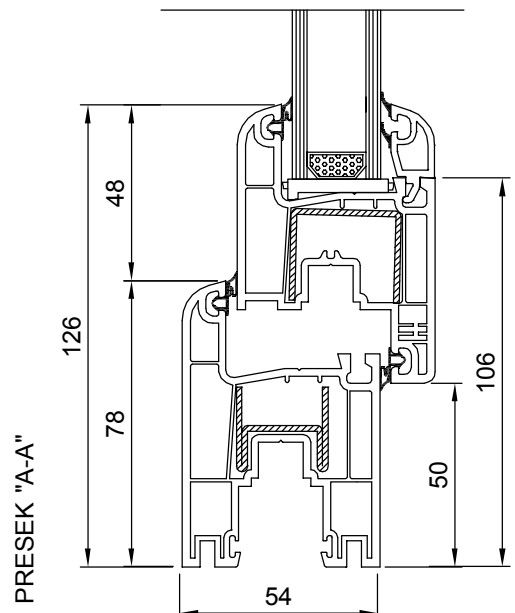
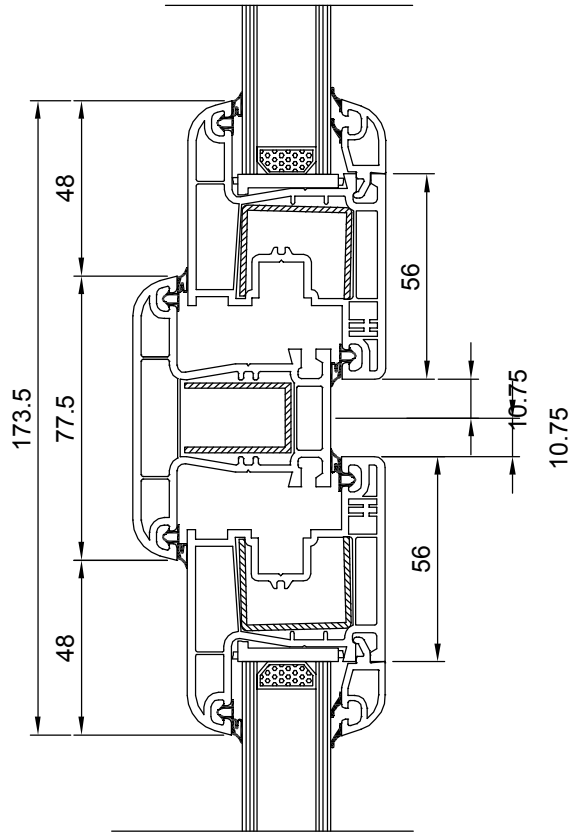
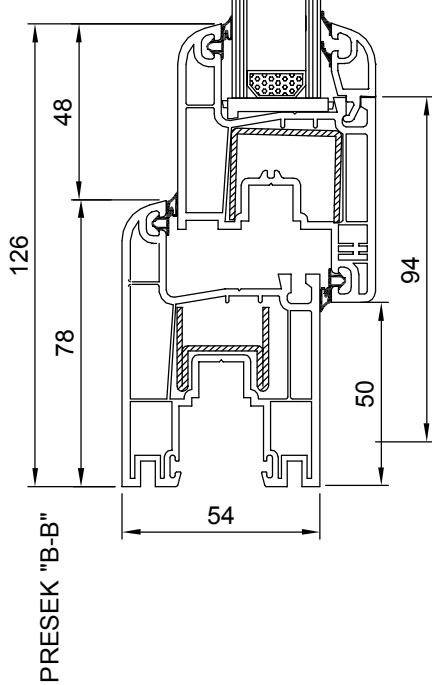
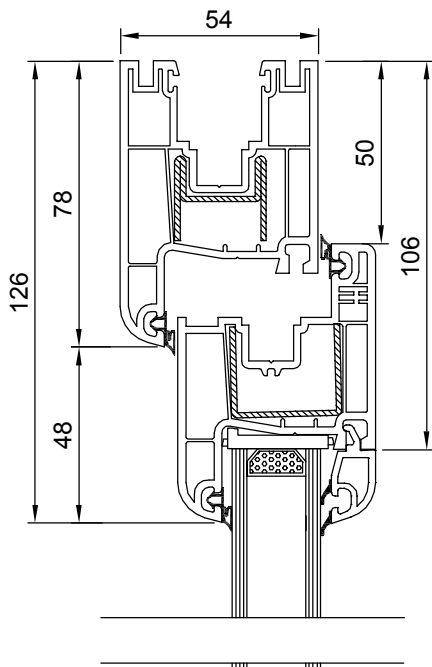
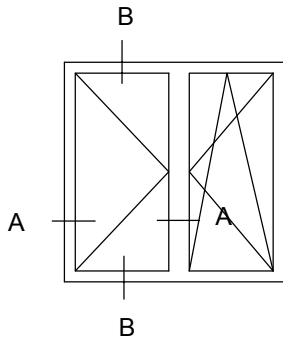
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 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
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 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# DVOKRILNI PROZOR SA STUBOM SISTEM 300



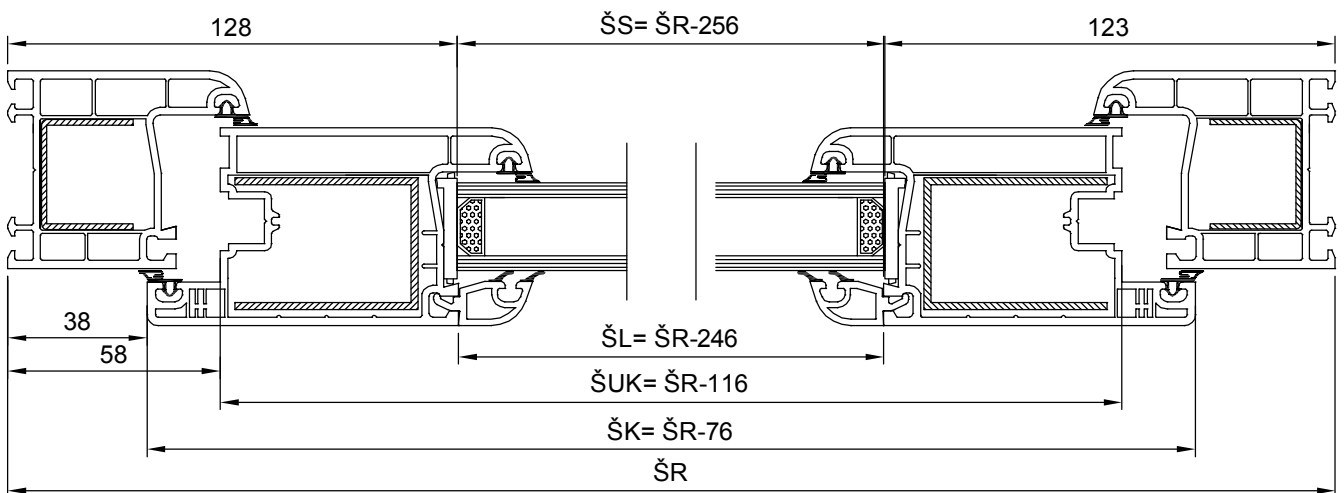
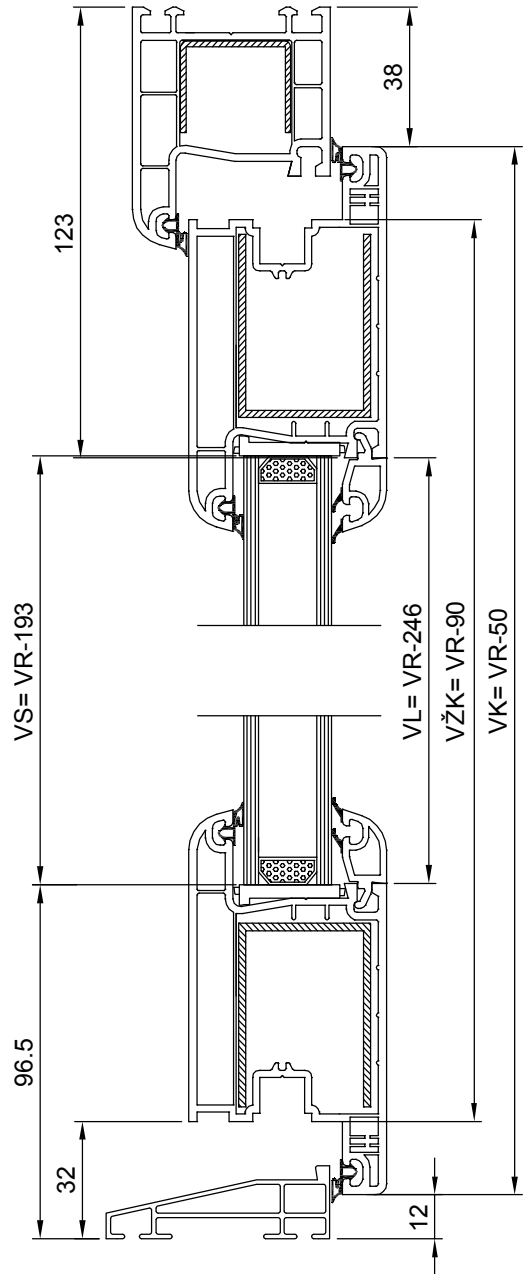
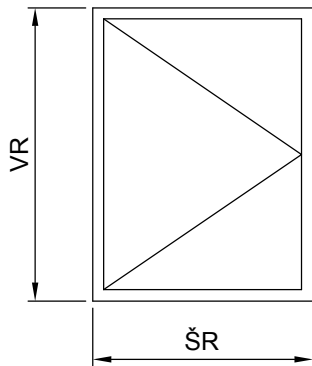
# DVOKRILNI PROZOR SA STUBOM I PROSIRENIM RAMOM SISTEM 300



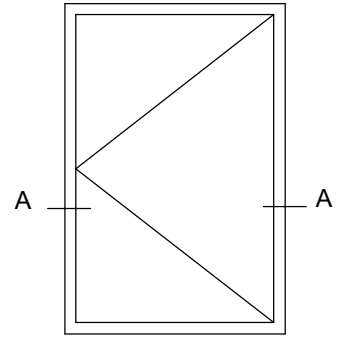
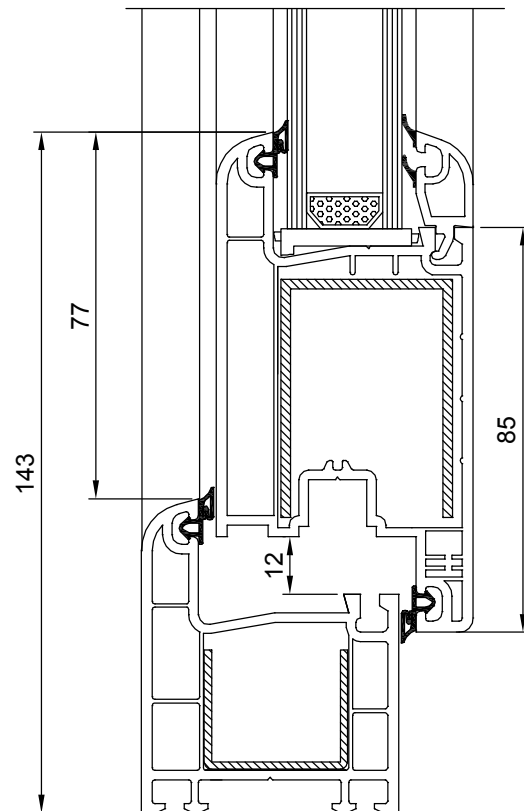
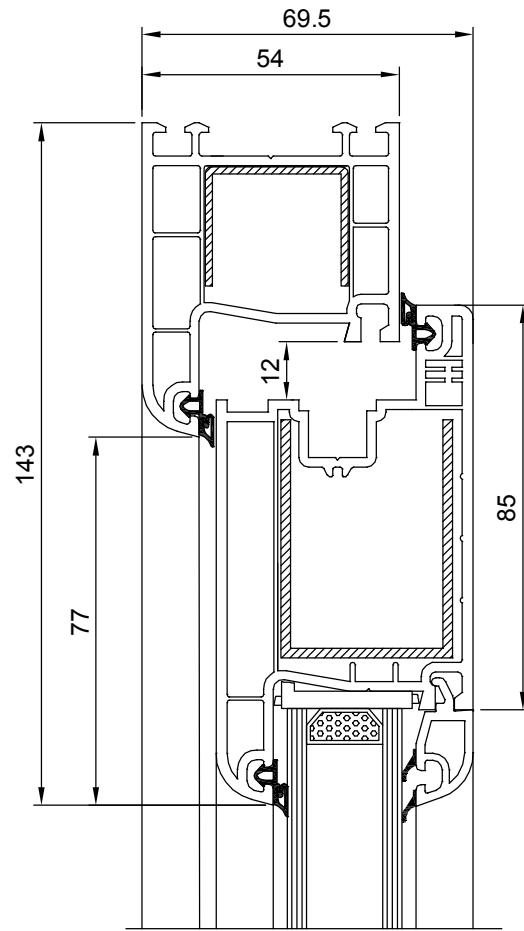
# ULAZNA VRATA SISTEM 300

## LEGENDA

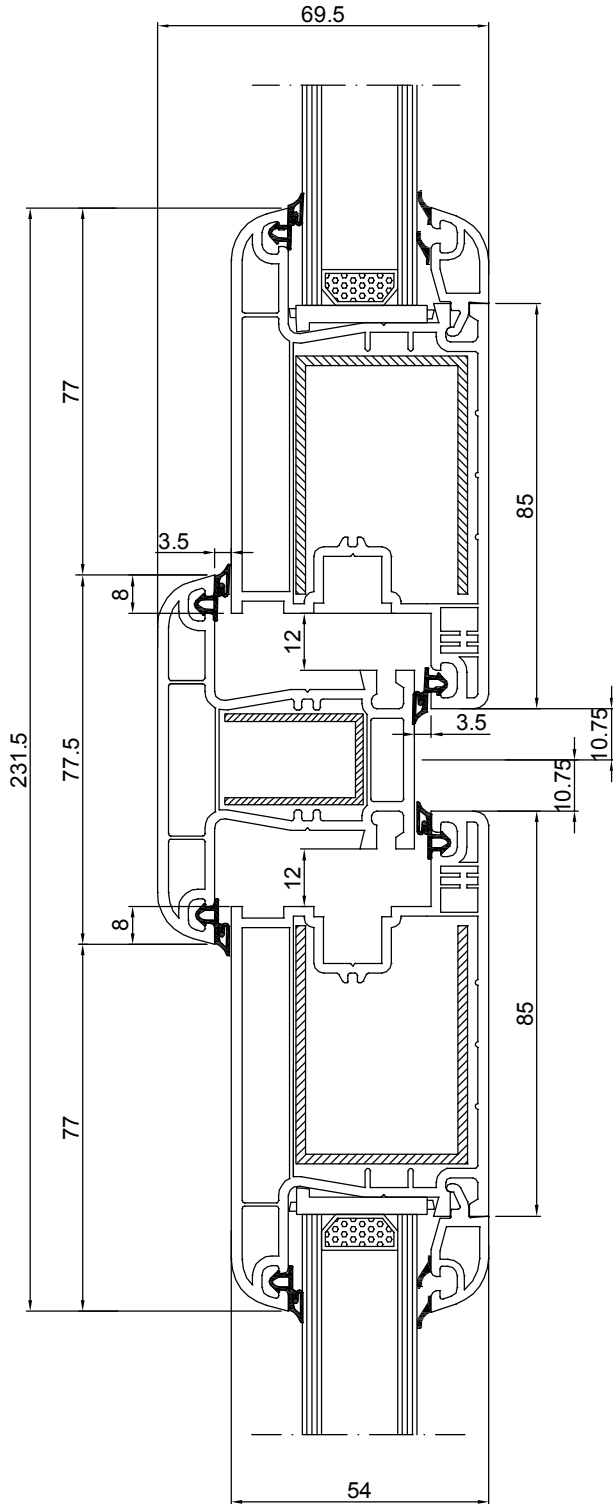
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 VS= VISINA STAKLA



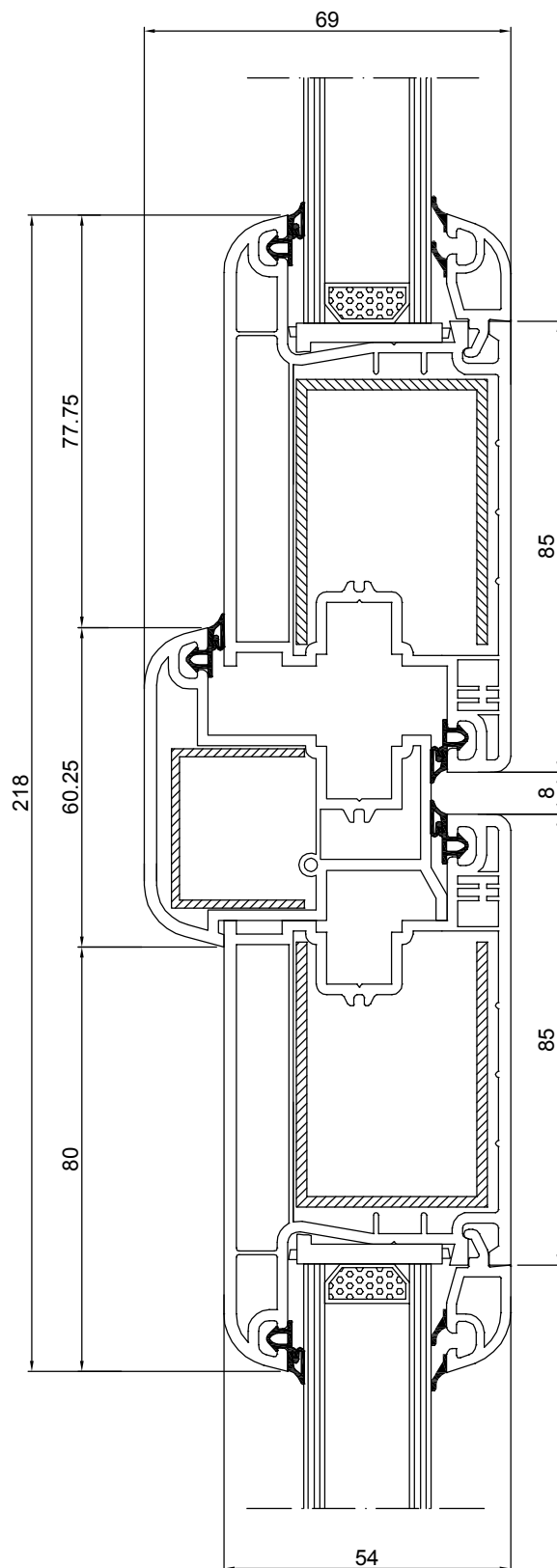
# ULAZNA VRATA SISTEM 300



# PRESEK VRATA KRILO-STUB-KRILO SISTEM 300



# PRESEK VRATA KRILO-PREKLOP-KRILO SISTEM 300

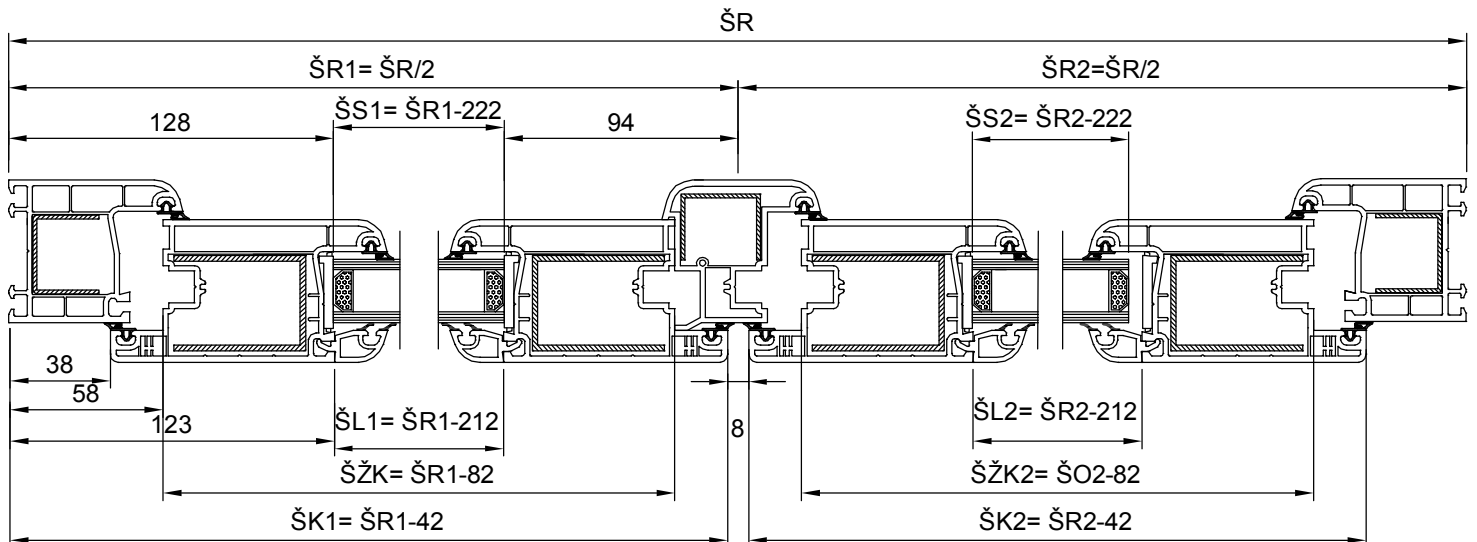
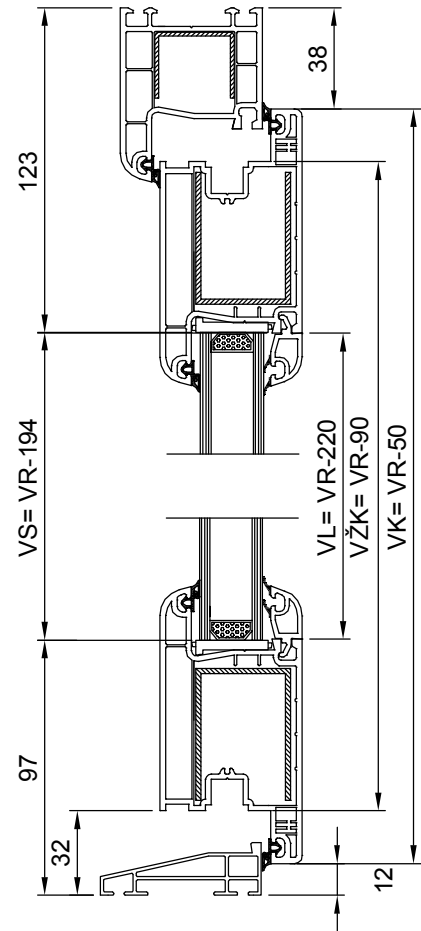
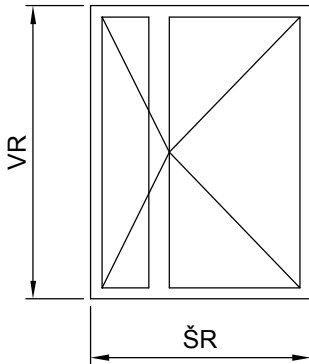




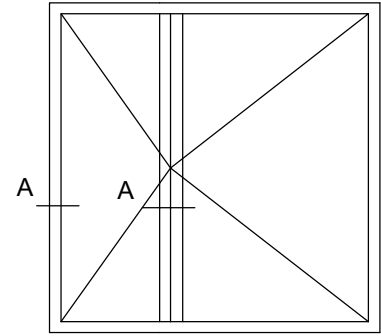
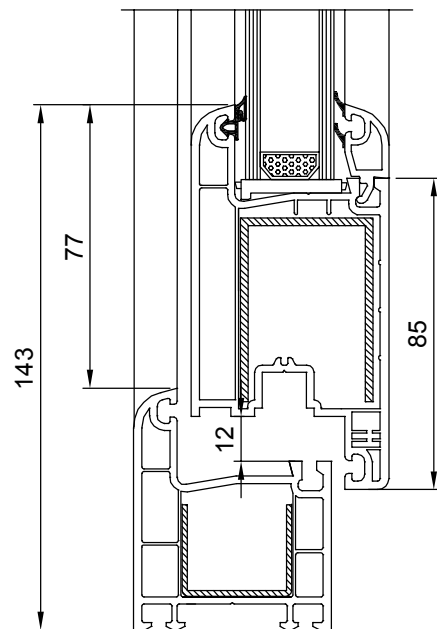
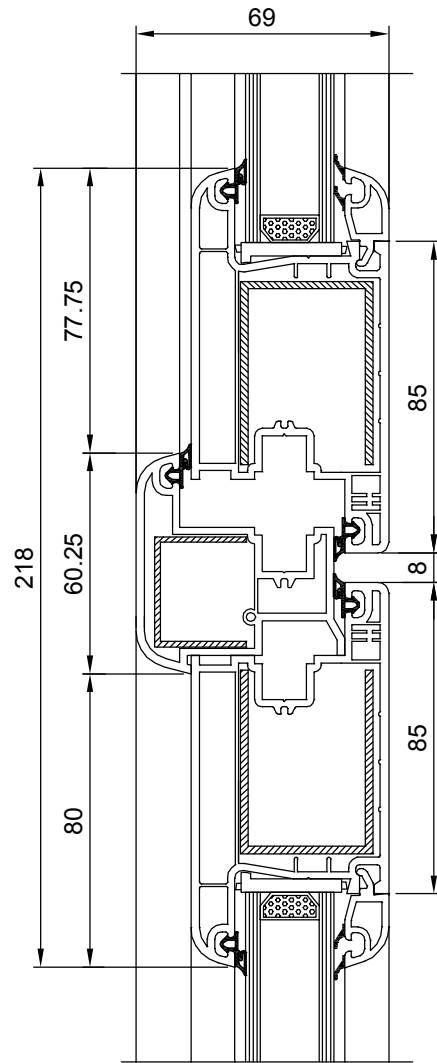
# DVOKRILNA ULAZNA VRATA SISTEM 300

## LEGENDA

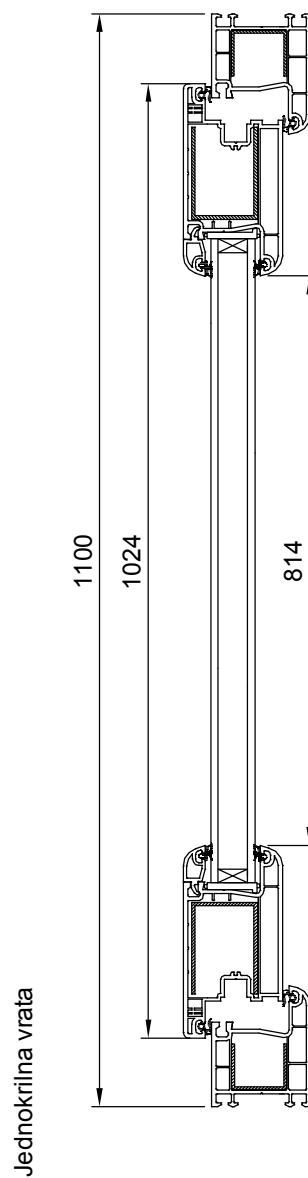
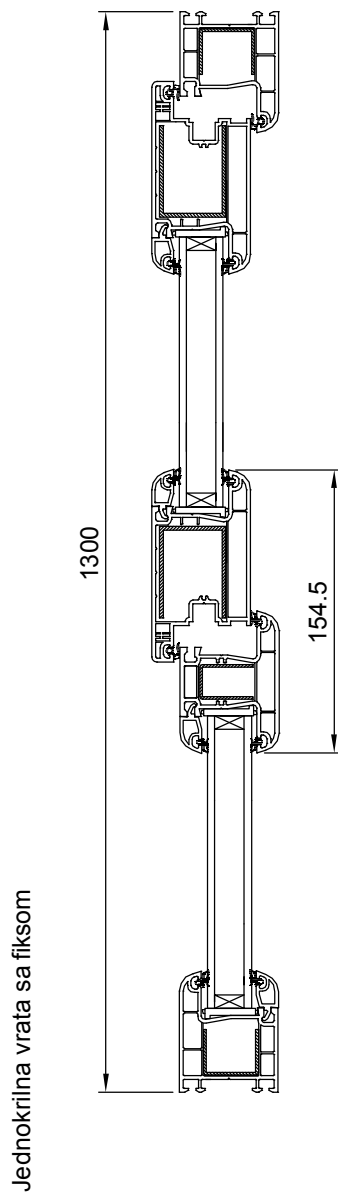
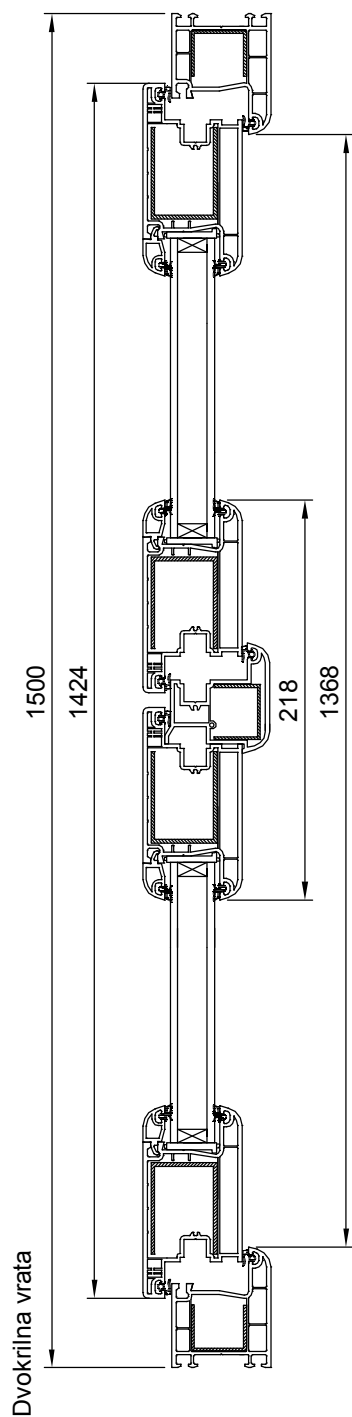
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 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
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 VŽK= VISINA ŽLJEBA KRILA  
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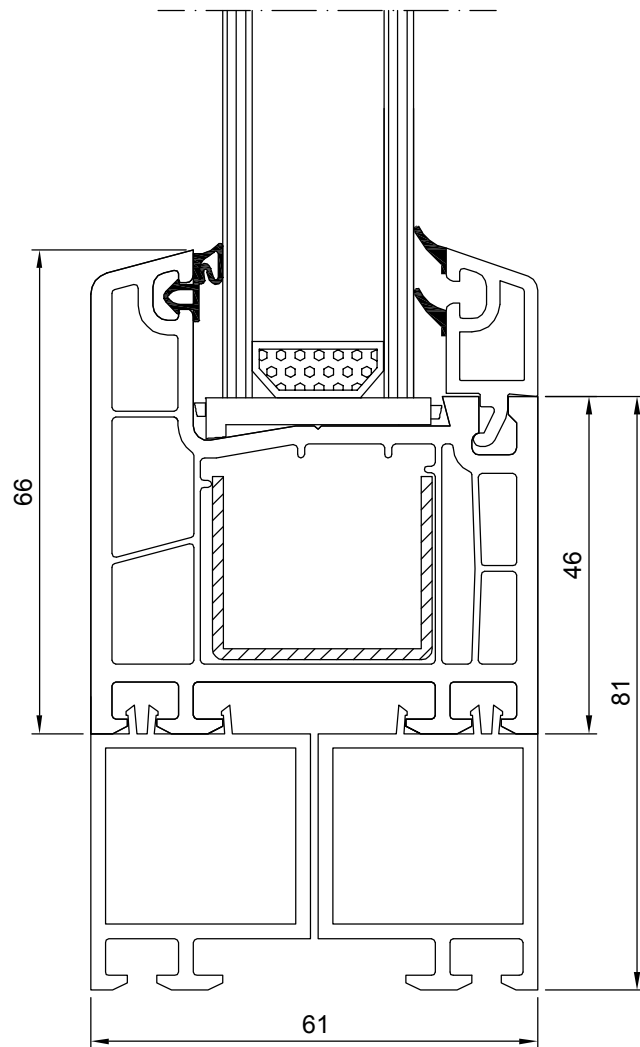
# DVOKRILNA ULAZNA VRATA SISTEM 300



# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA SISTEM 300



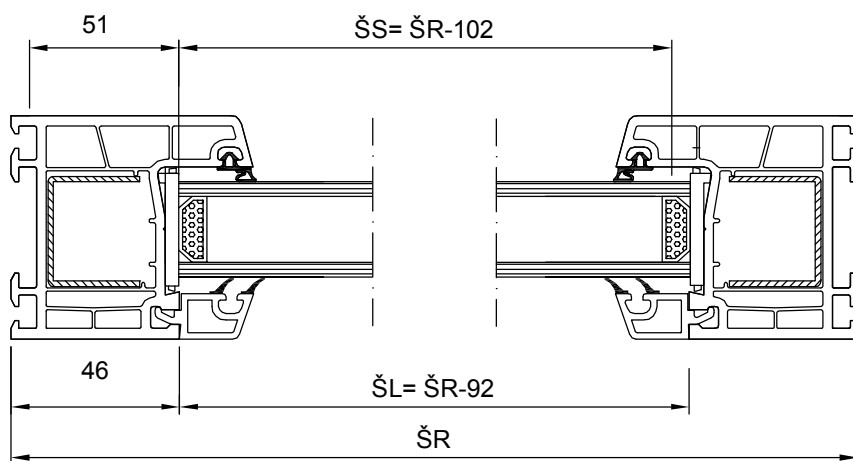
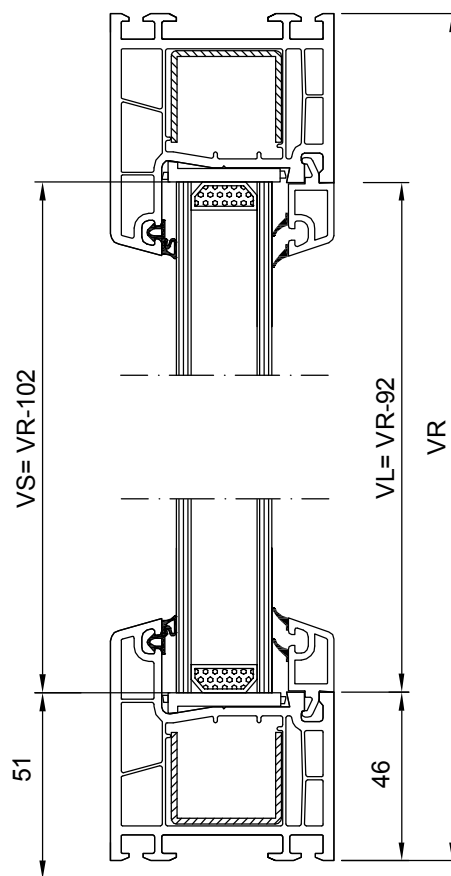
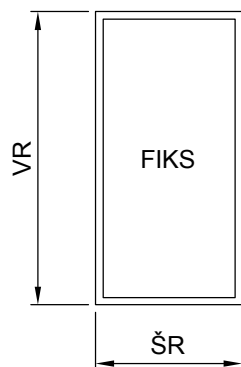
PRESEK PROZORA  
NASTAVAK RAMA - RAM  
SISTEM 400



# FIKSNI PROZOR SISTEM 400

## LEGENDA

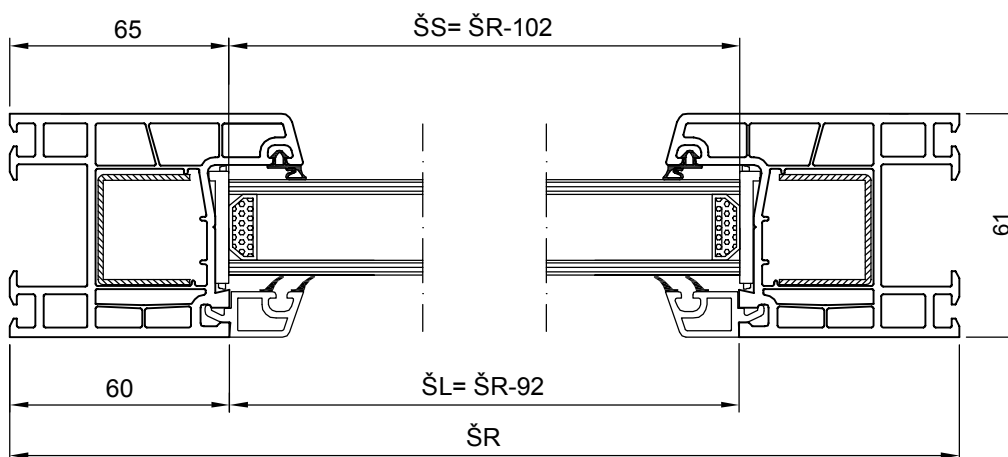
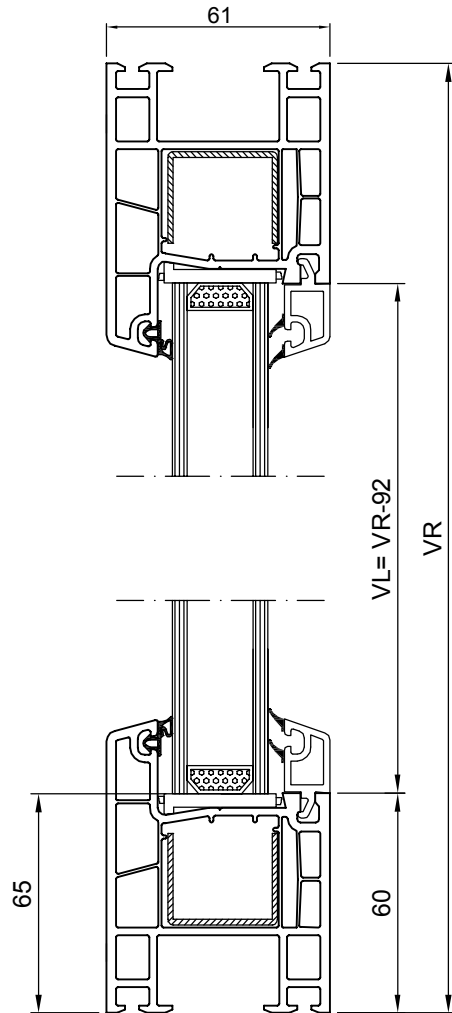
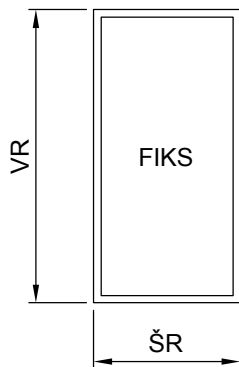
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VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



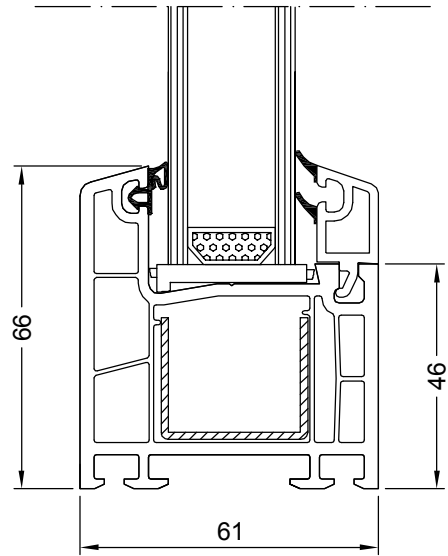
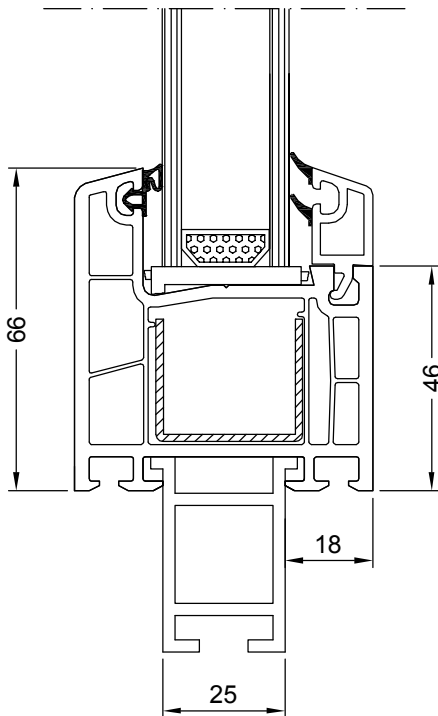
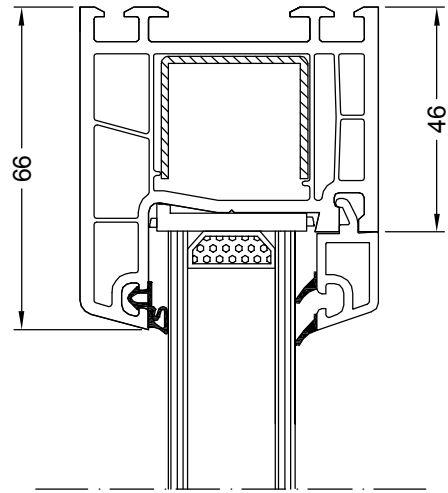
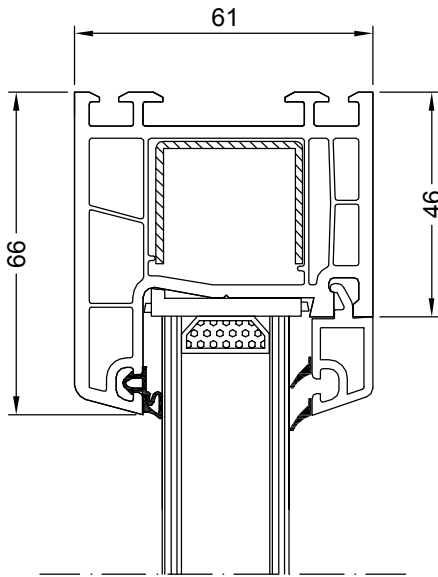
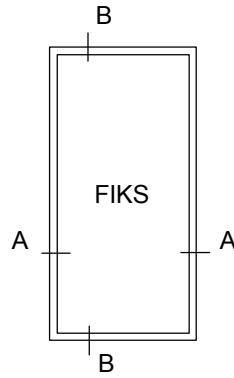
# FIKSNI PROZOR SA PROSIRENIM RAMOM SISTEM 400

## LEGENDA

ŠR= ŠIRINA RAMA  
VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



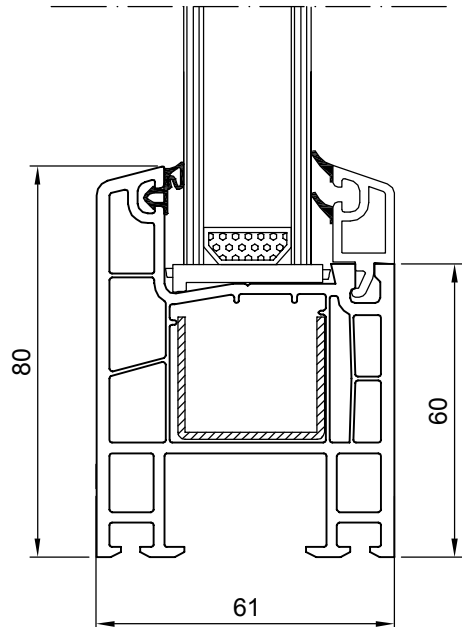
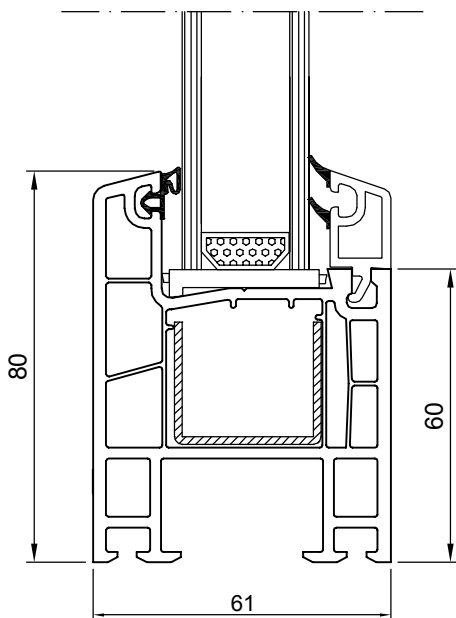
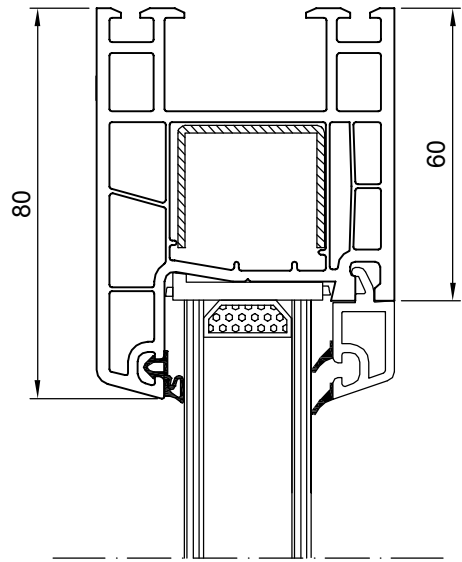
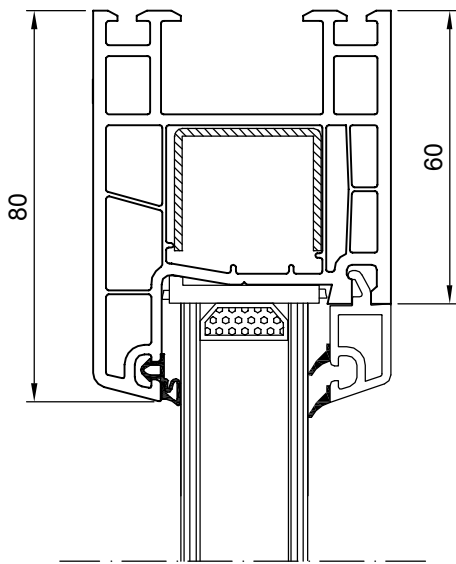
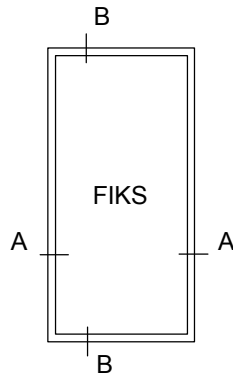
# FIKSNI PROZOR SISTEM 400



PRESEK "B-B"

PRESEK "A-A"

# FIKSNI PROZOR SA PROSIRENIM RAMOM SISTEM 400

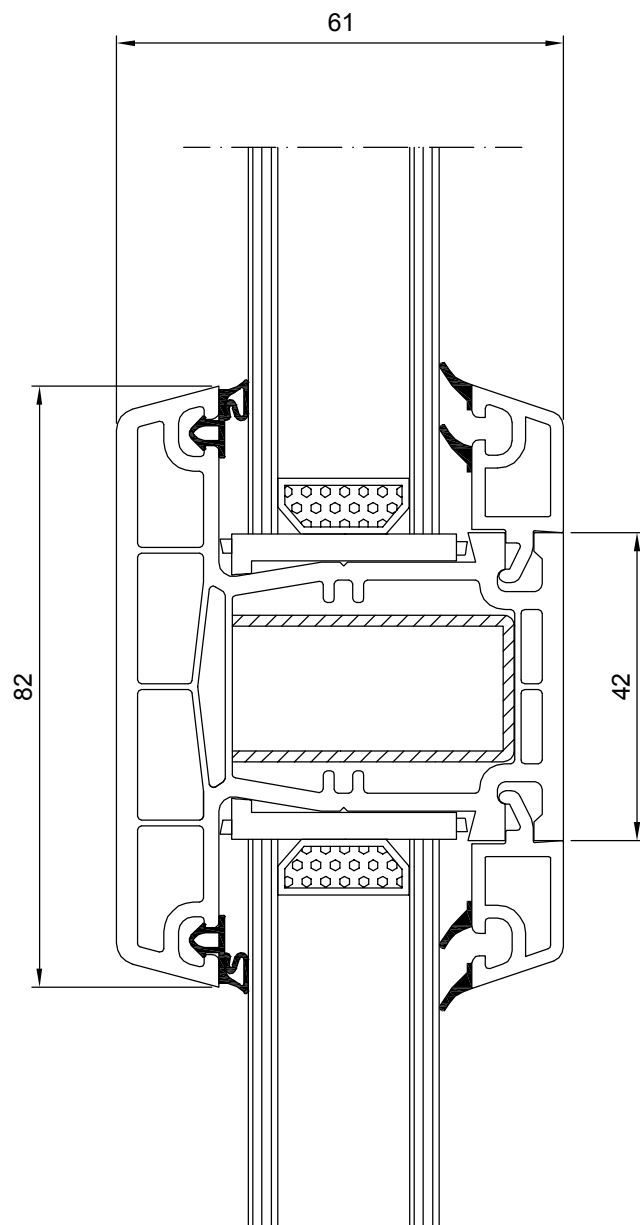


PRESEK "B-B"

PRESEK "A-A"



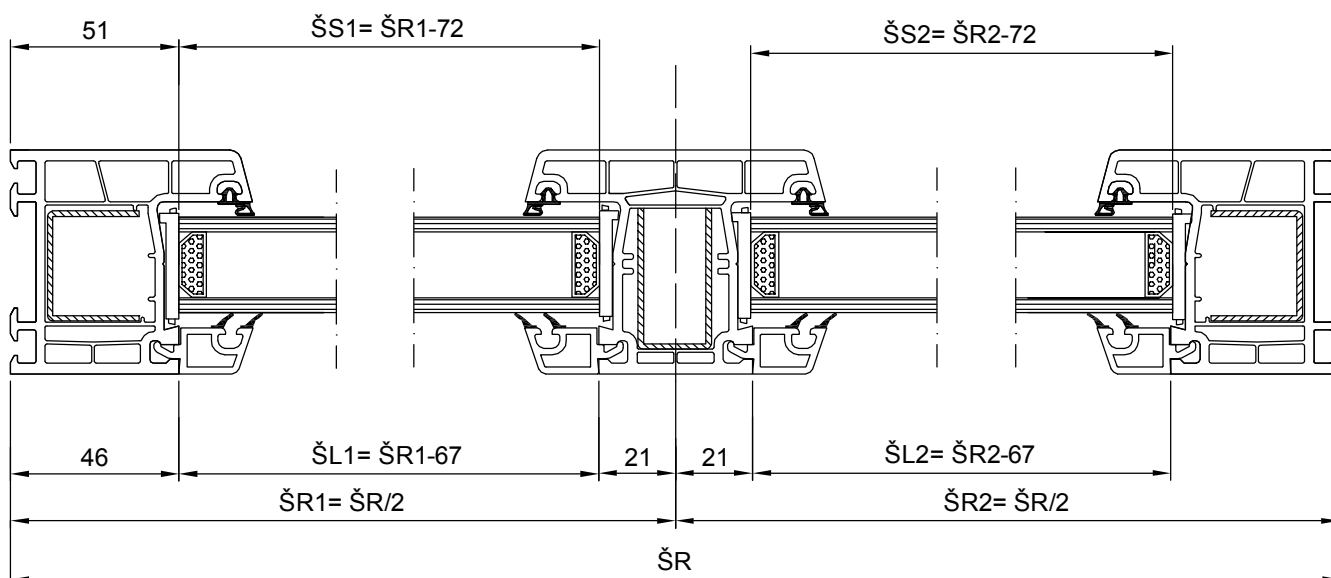
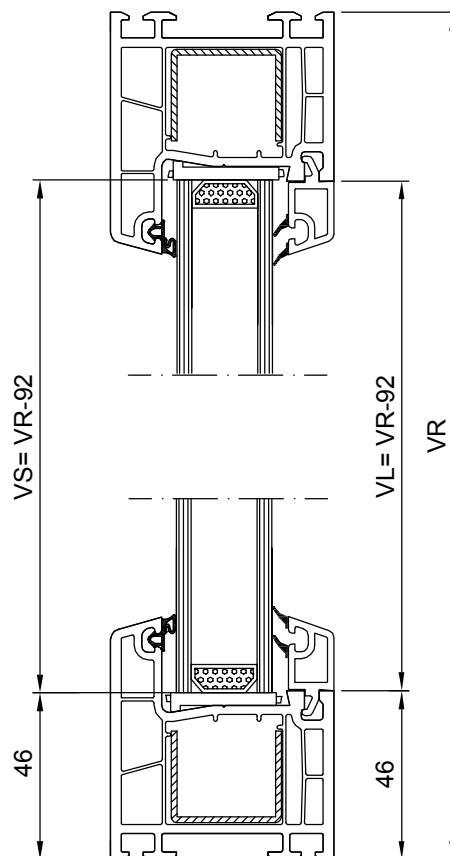
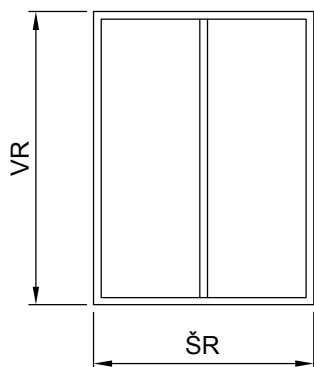
PRESEK PROZORA  
STUB - LAJSNA ZA STAKLO  
SISTEM 400



# FIKSNI PROZOR SA STUBOM SISTEM 400

## LEGENDA

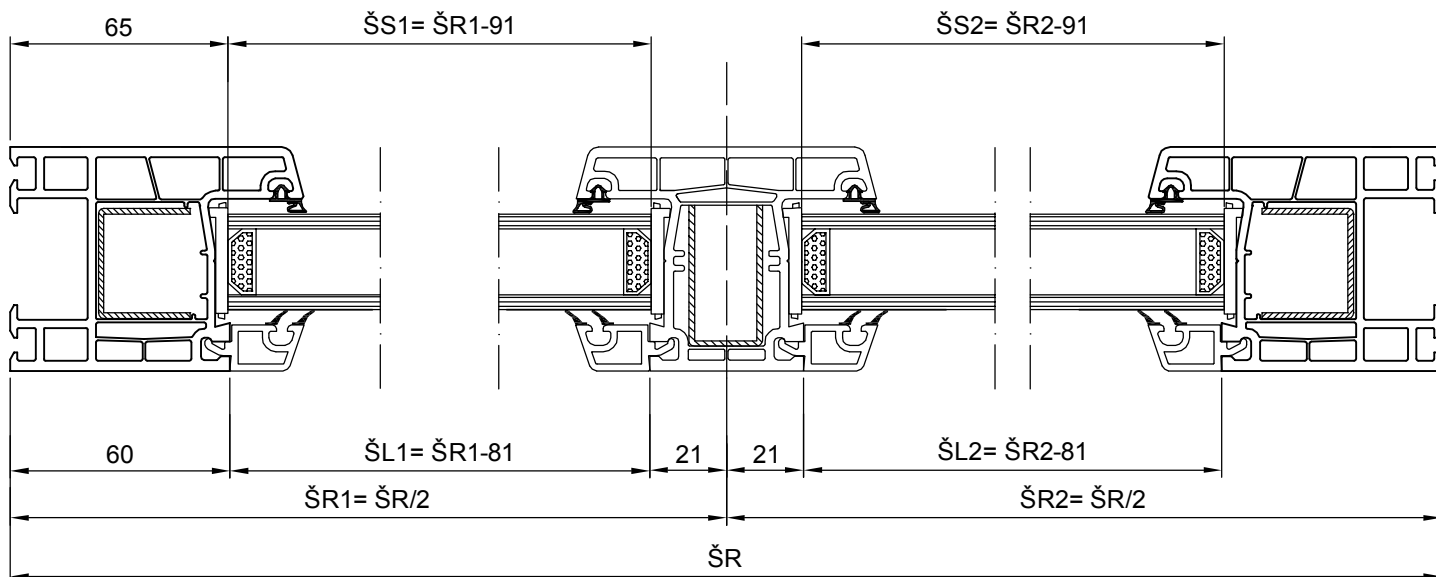
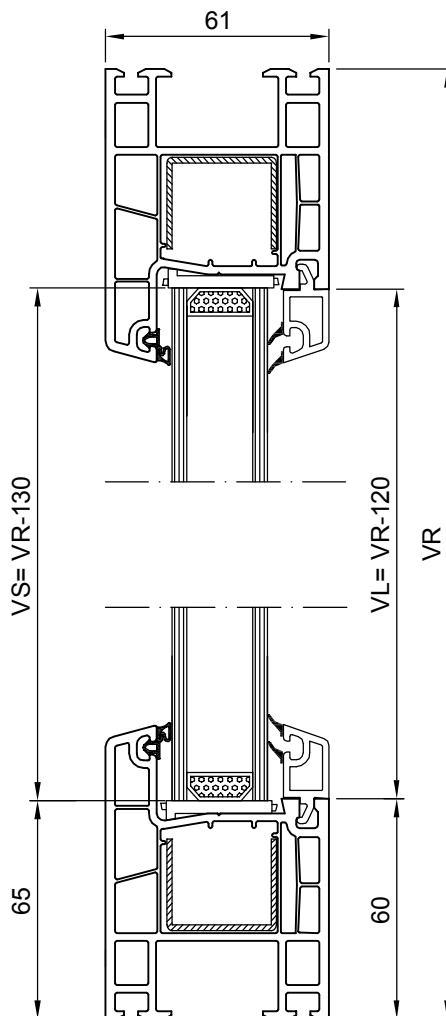
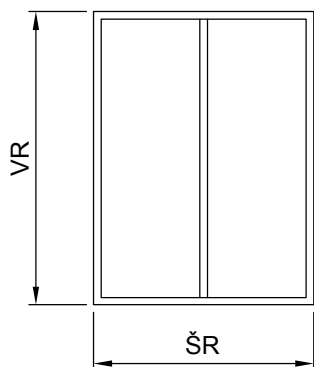
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 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



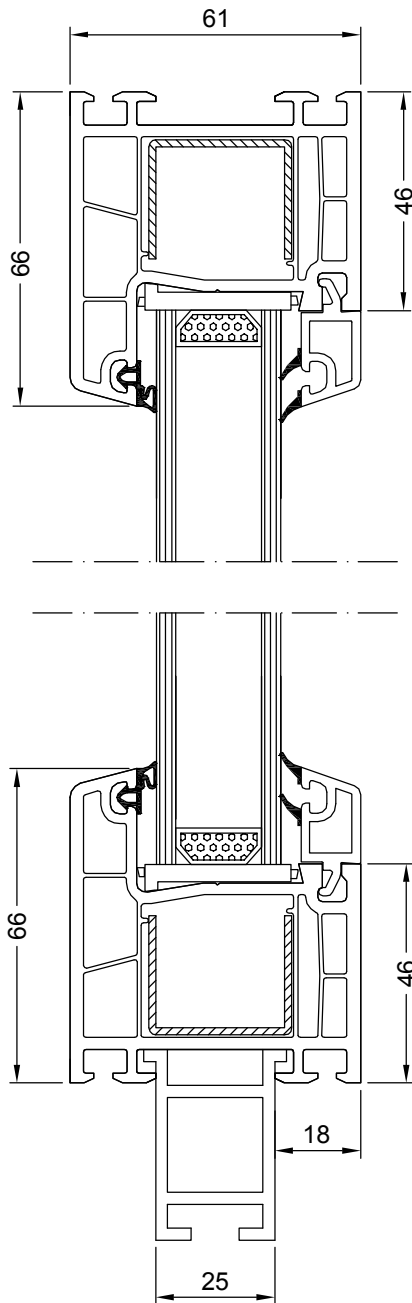
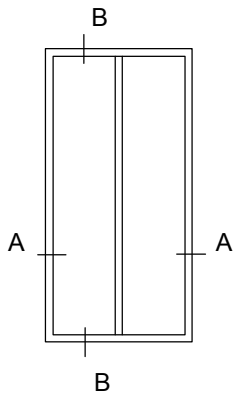
# FIKSNI PROZOR SA STUBOM I PROSIRENIM RAMOM SISTEM 400

## LEGENDA

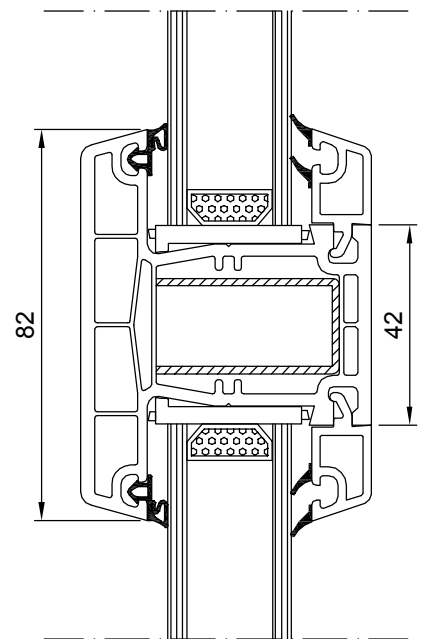
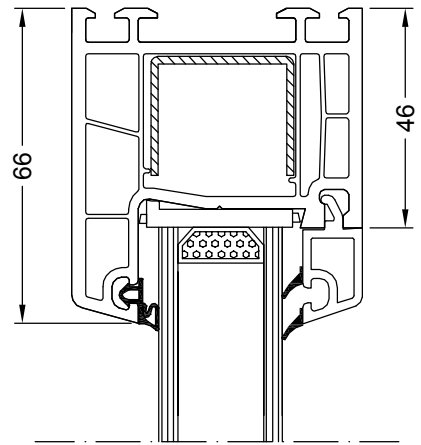
ŠR= ŠIRINA RAMA  
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 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



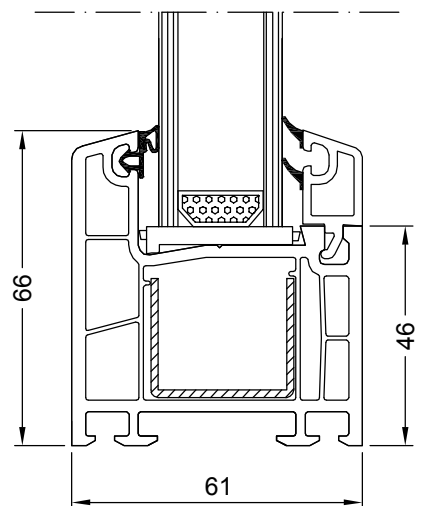
# FIKSNI PROZOR SA STUBOM SISTEM 400



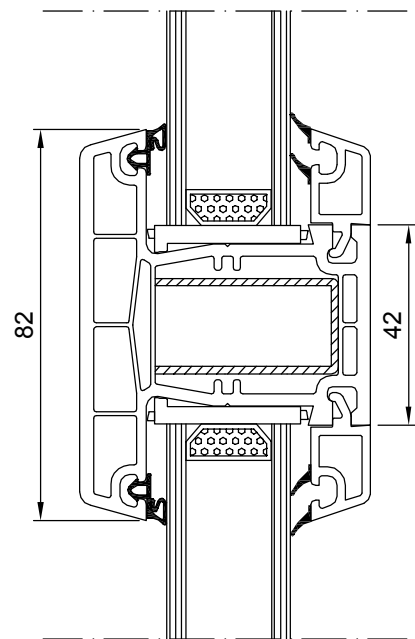
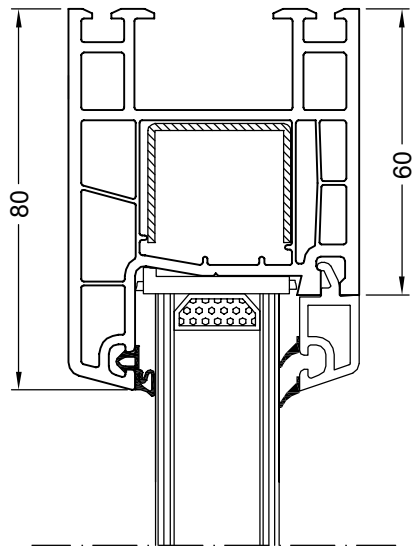
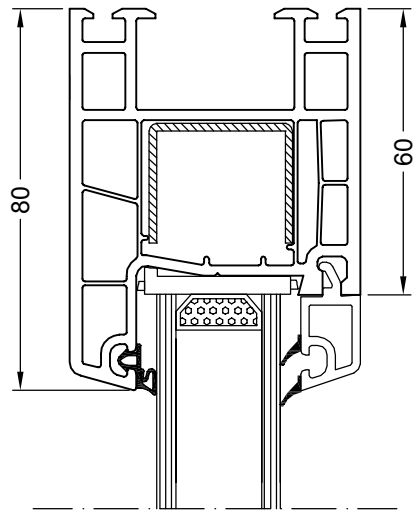
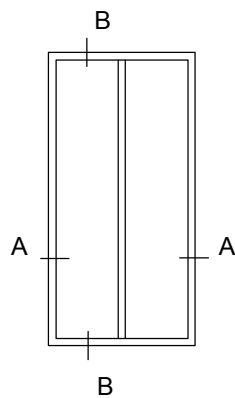
PRESEK "B-B"



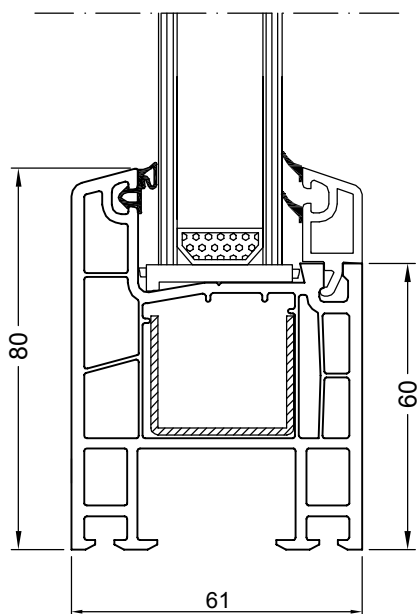
PRESEK "A-A"



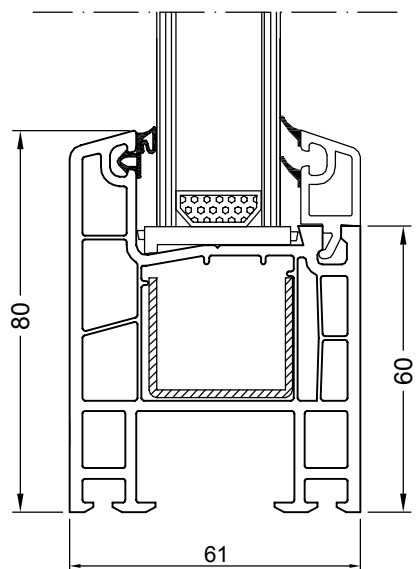
# FIKSNI PROZOR SA STUBOM I PROSIRENIM RAMOM SISTEM 400



PRESEK "B-B"



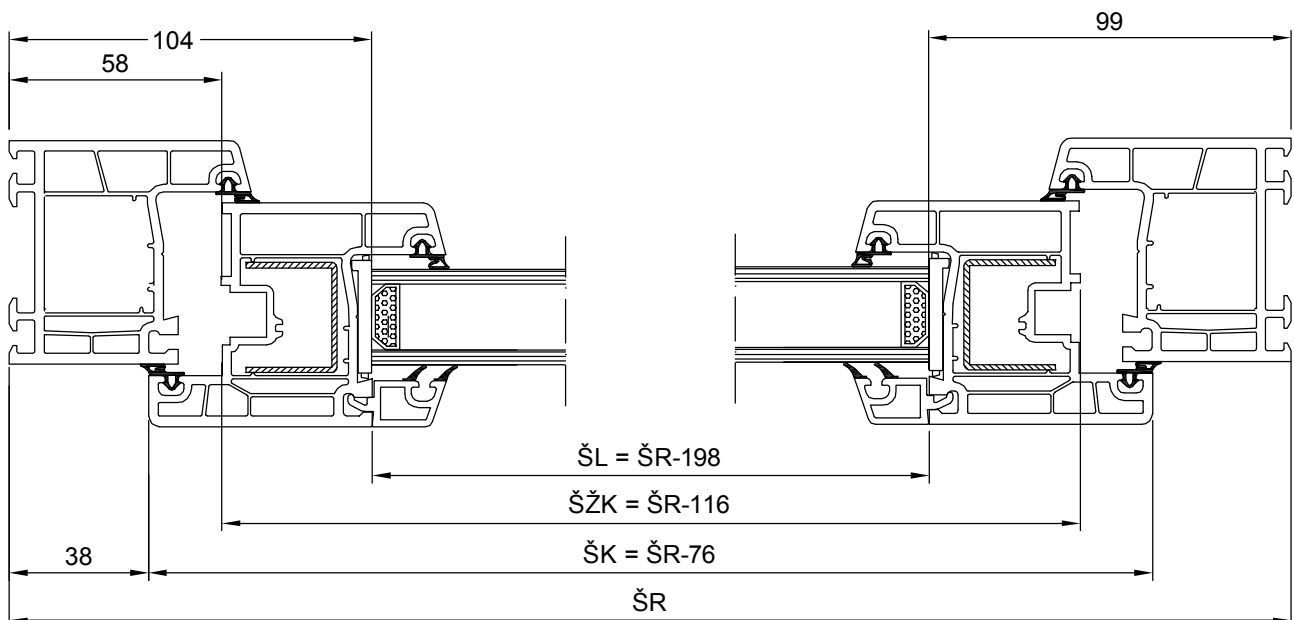
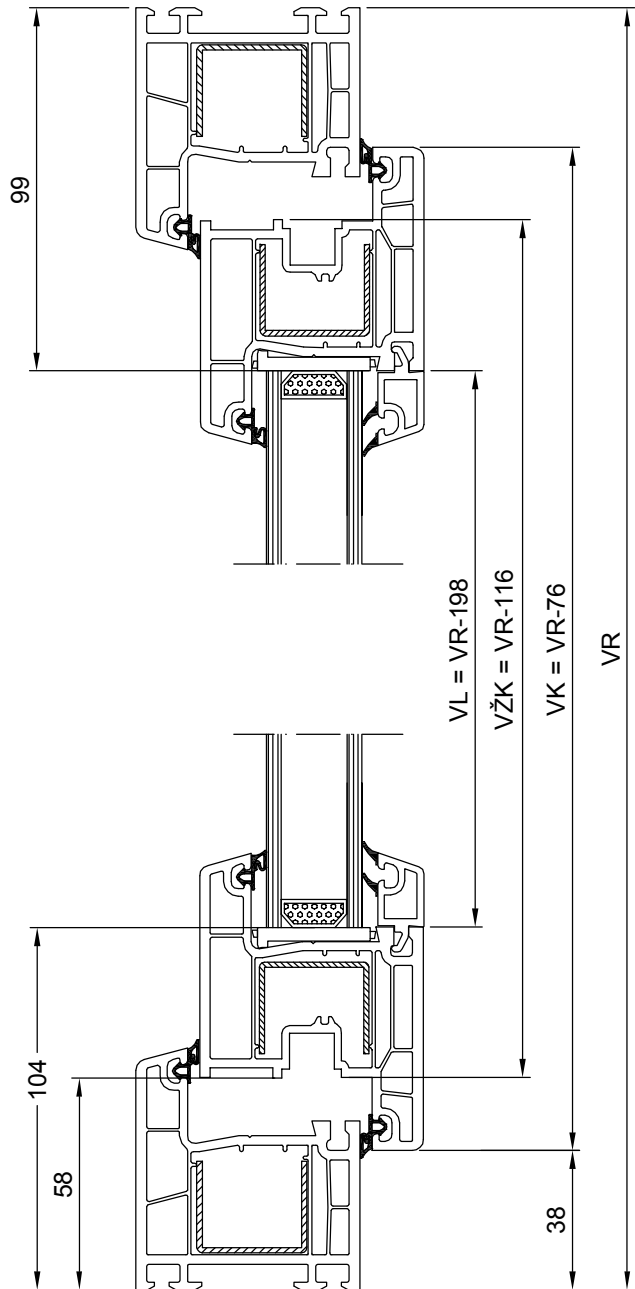
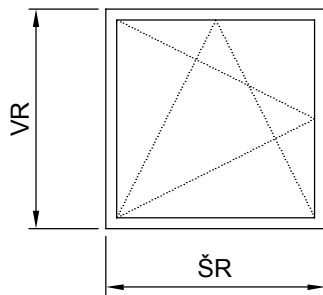
PRESEK "A-A"



# JEDNOKRILNI PROZOR SISTEM 400

## LEGENDA

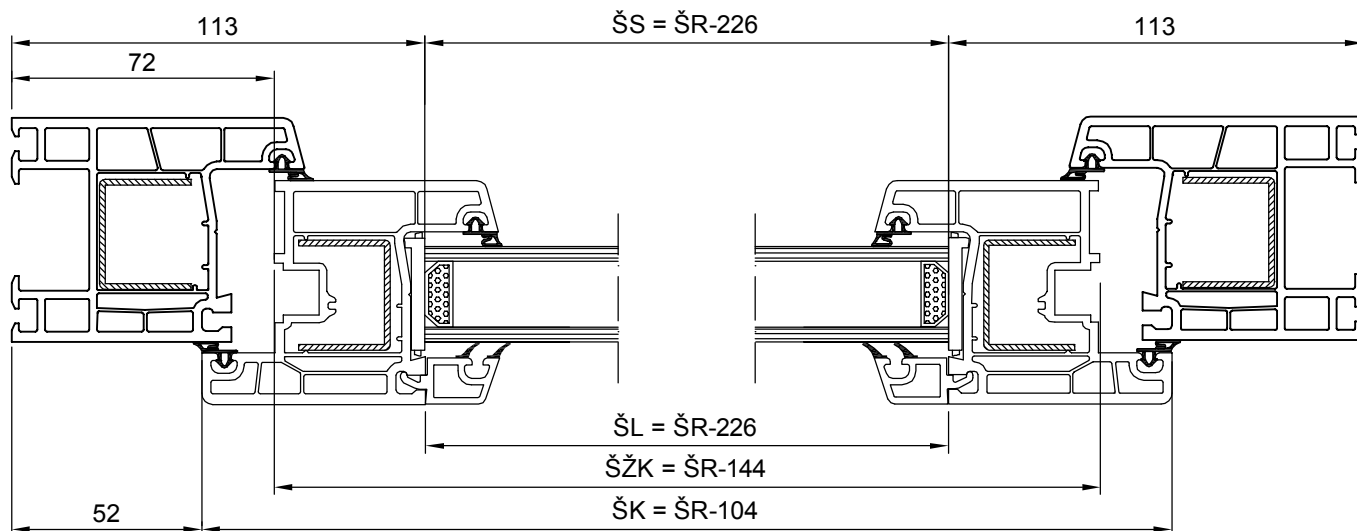
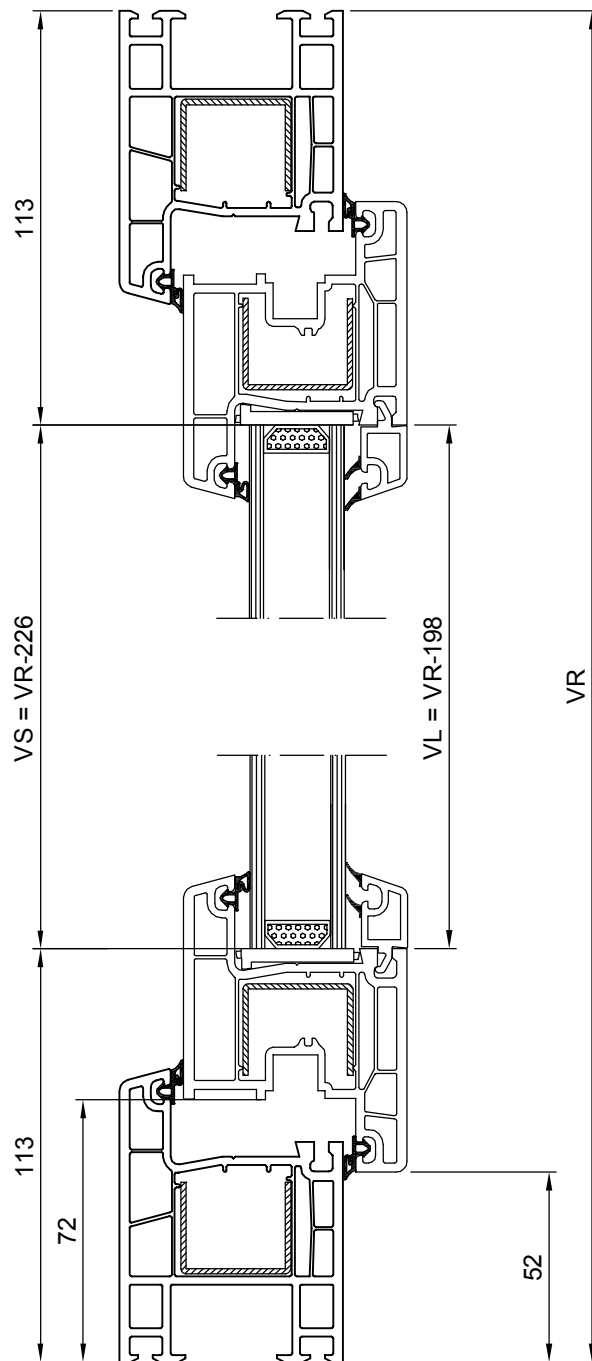
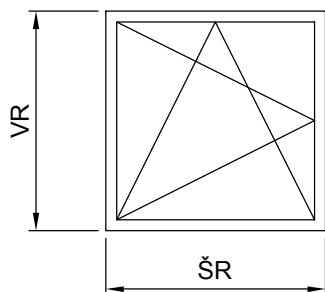
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLEBA KRILA  
 VŽK= VISINA ŽLEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



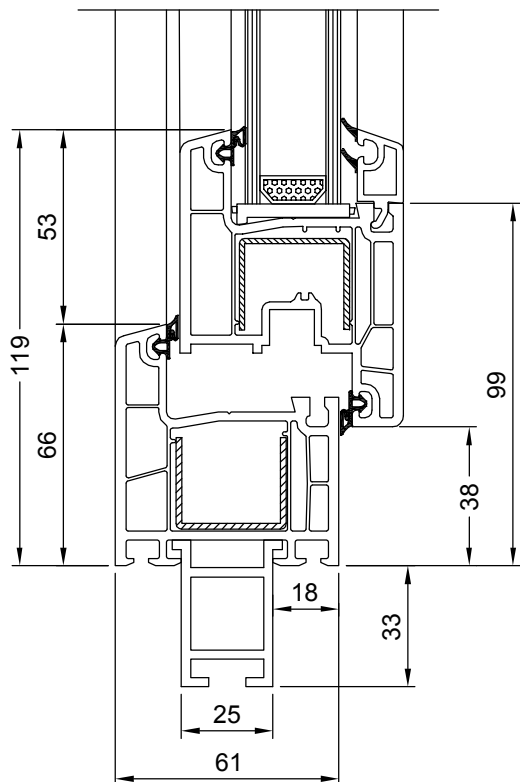
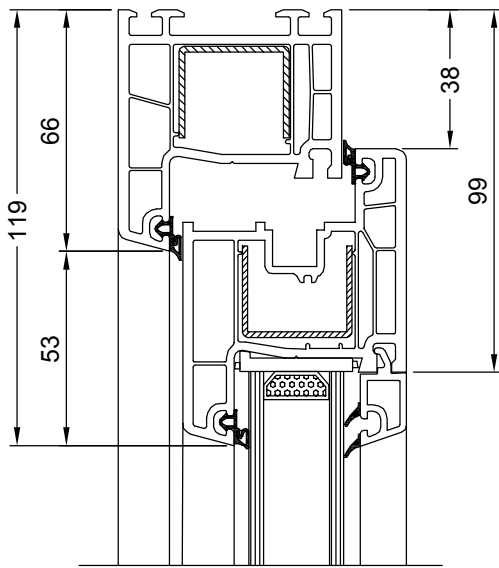
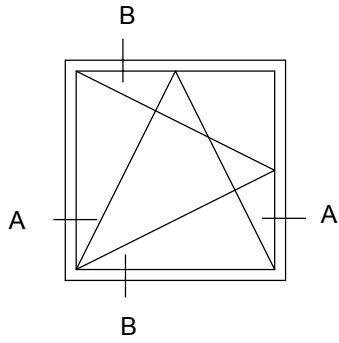
# JEDNOKRILNI PROZOR SA PROSIRENIM RAMOM SISTEM 400

## LEGENDA

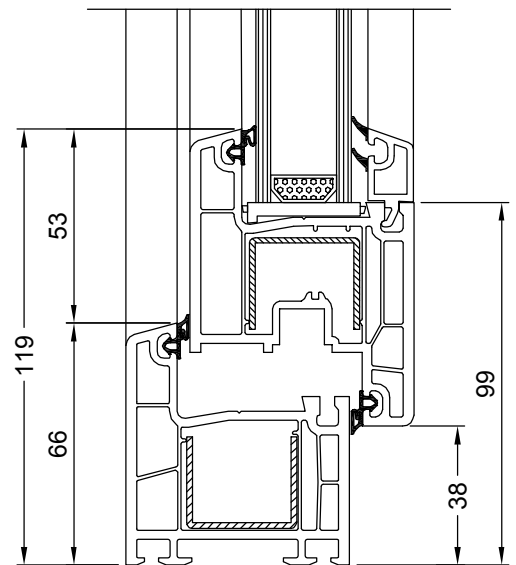
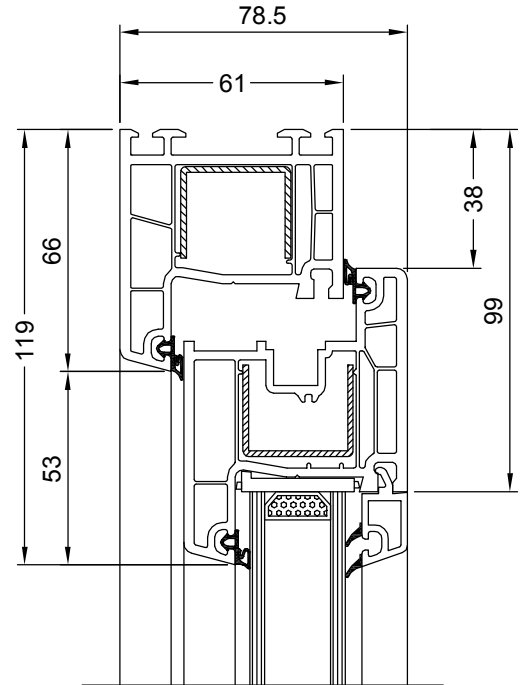
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 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLEBA KRILA  
 VŽK= VISINA ŽLEBA KRILA  
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 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# JEDNOKRILNI PROZOR SISTEM 400



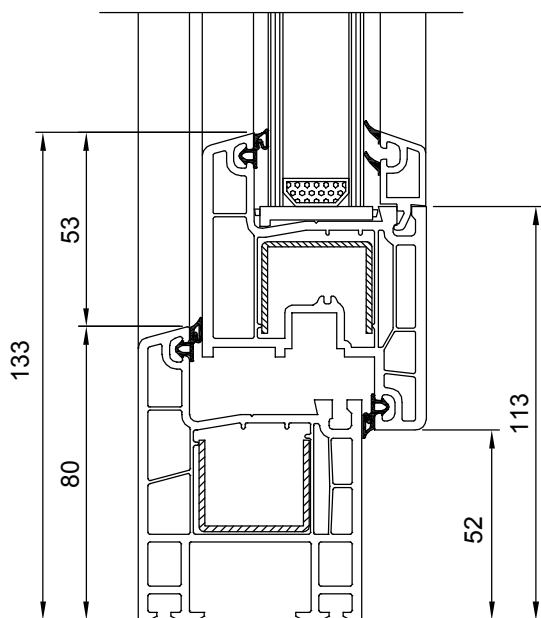
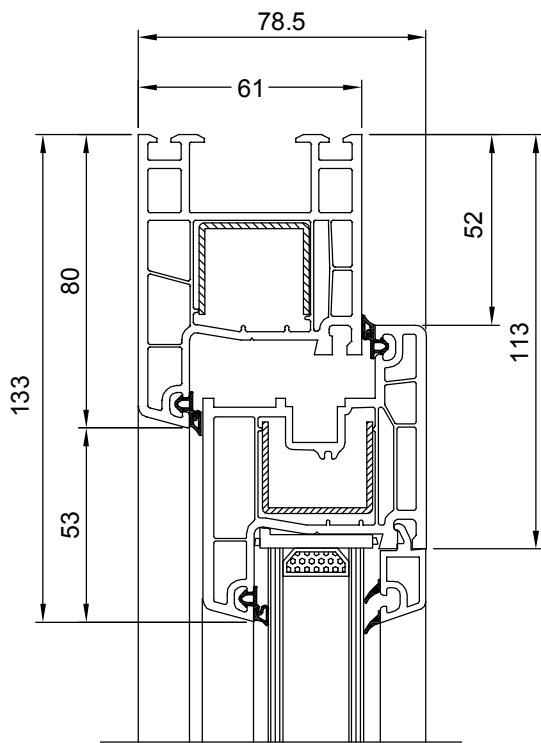
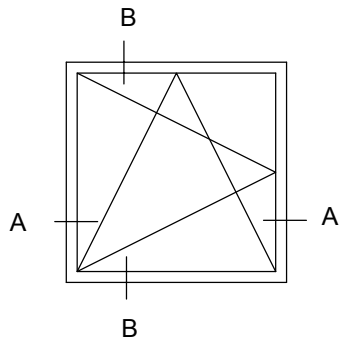
PRESEK "B-B"



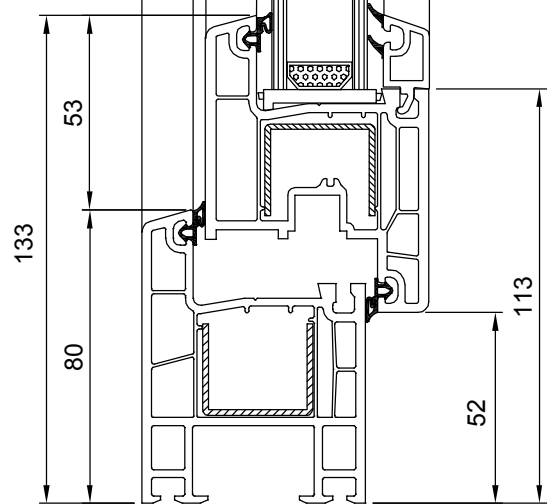
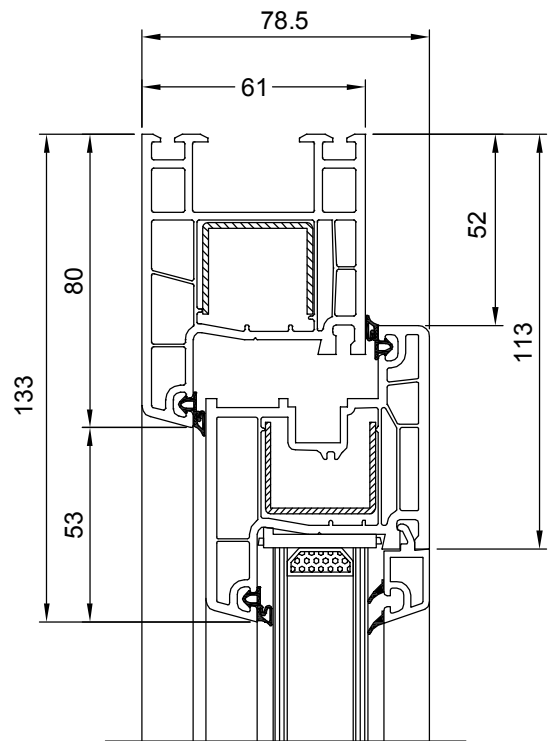
PRESEK "A-A"



# JEDNOKRILNI PROZOR SA PRO ŠIRENIM RAMOM SISTEM 400

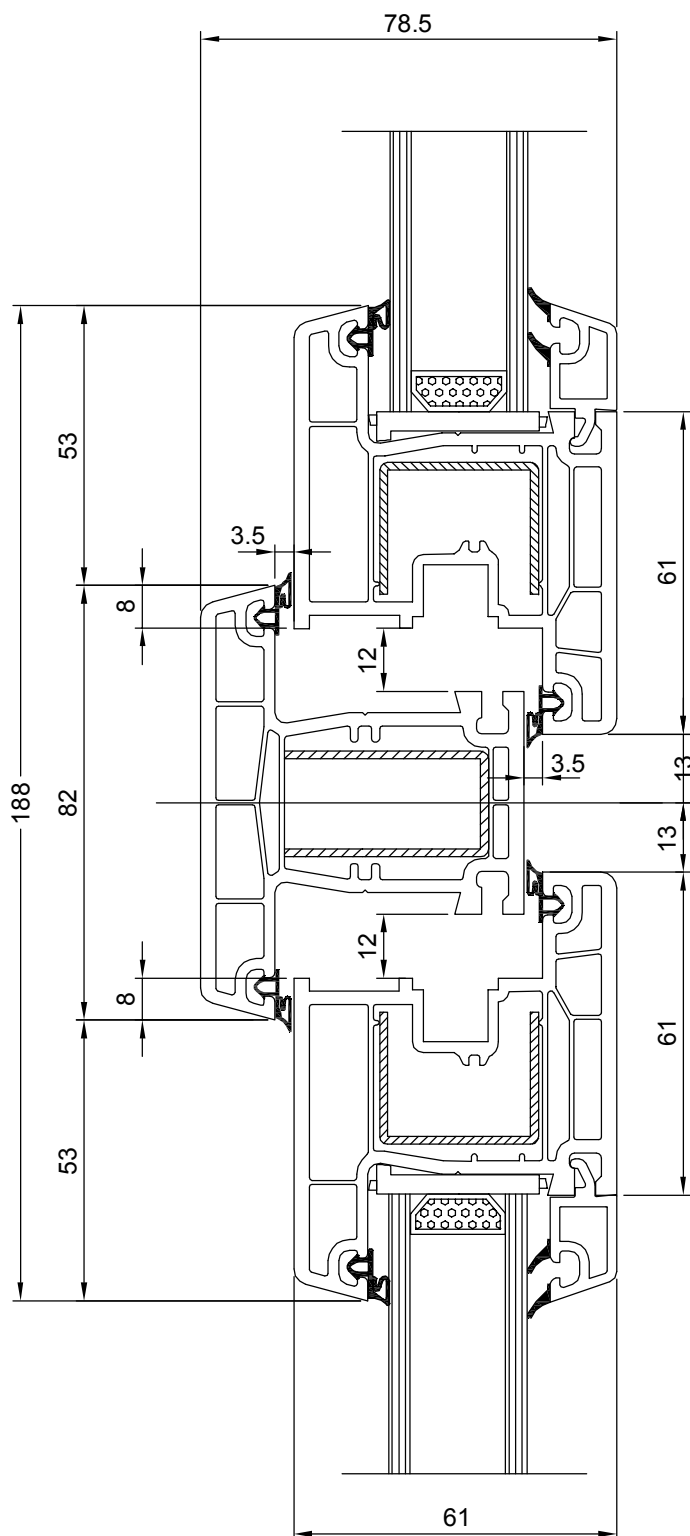


PRESEK "B-B"



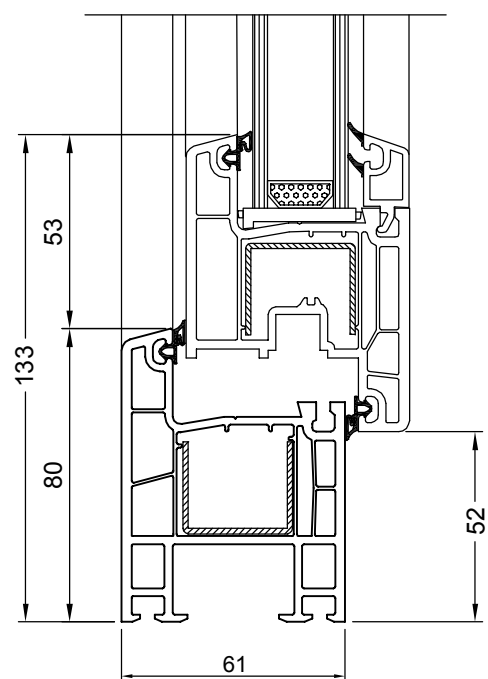
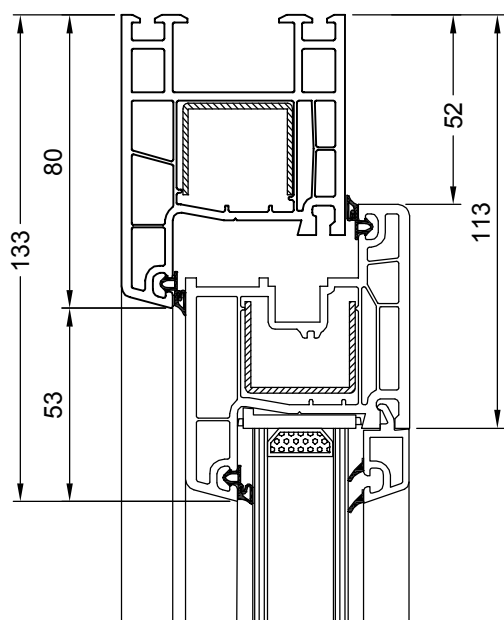
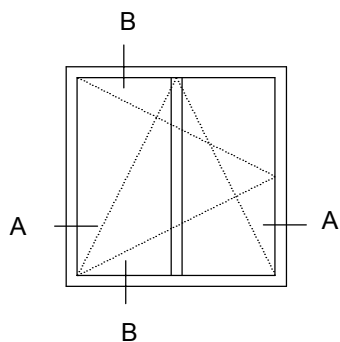
PRESEK "A-A"

# PRESEK PROZORA KRILO-STUB-KRILO SISTEM 400

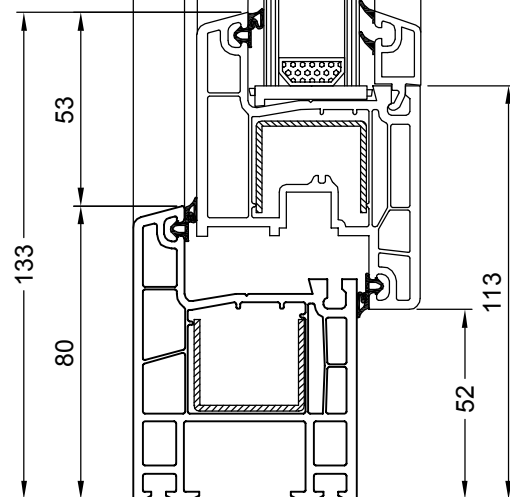
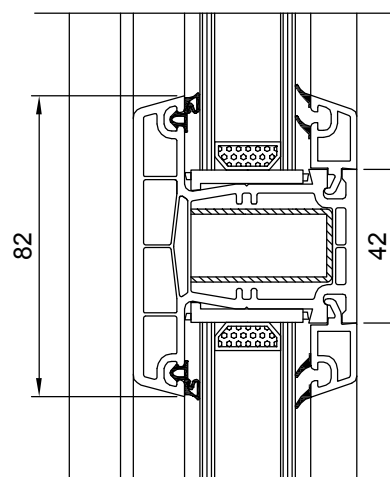
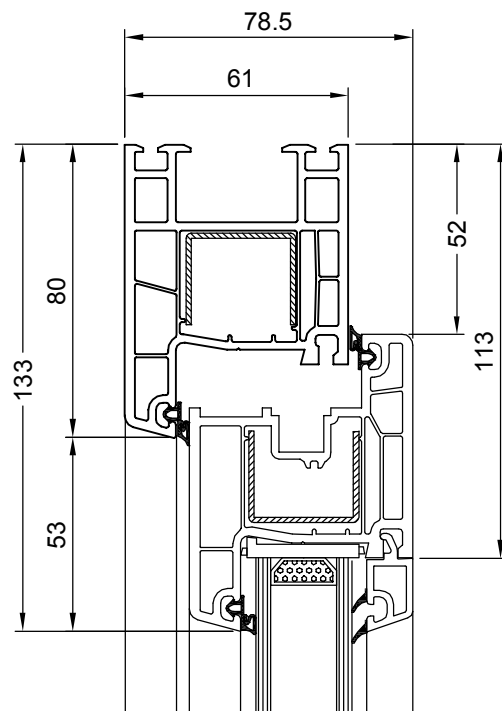




# JEDNOKRILNI PROZOR SA PREČKOM I PROSIRENIM RAMOM SISTEM 400

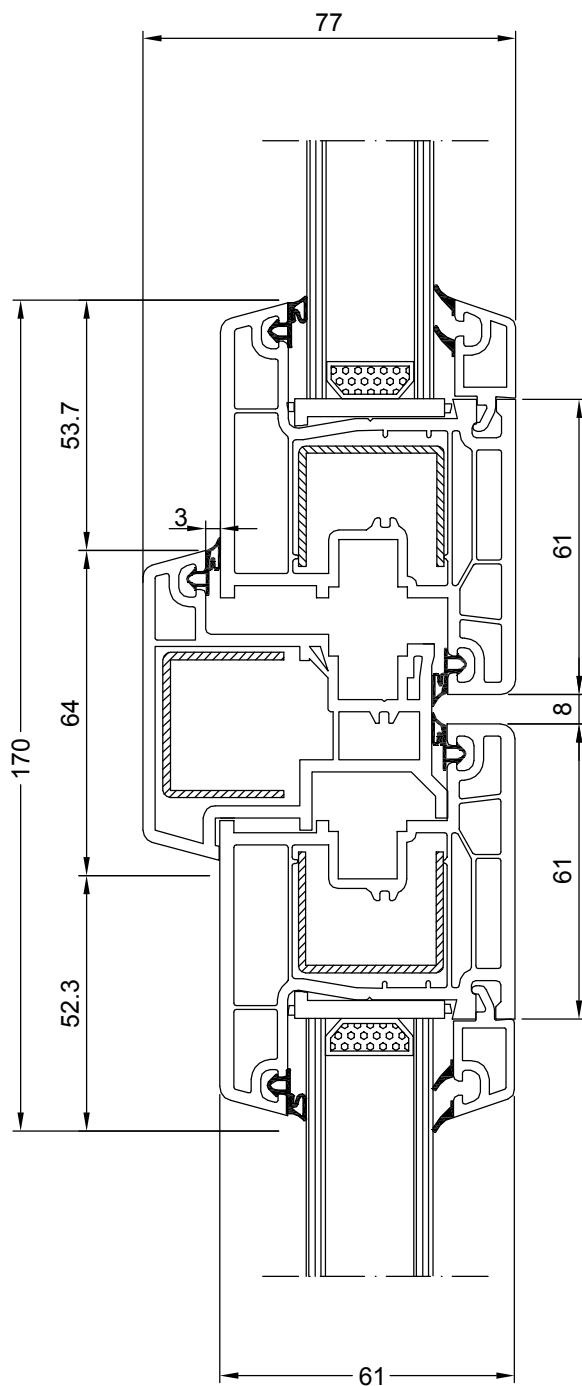


PRESEK "B-B"



PRESEK "A-A"

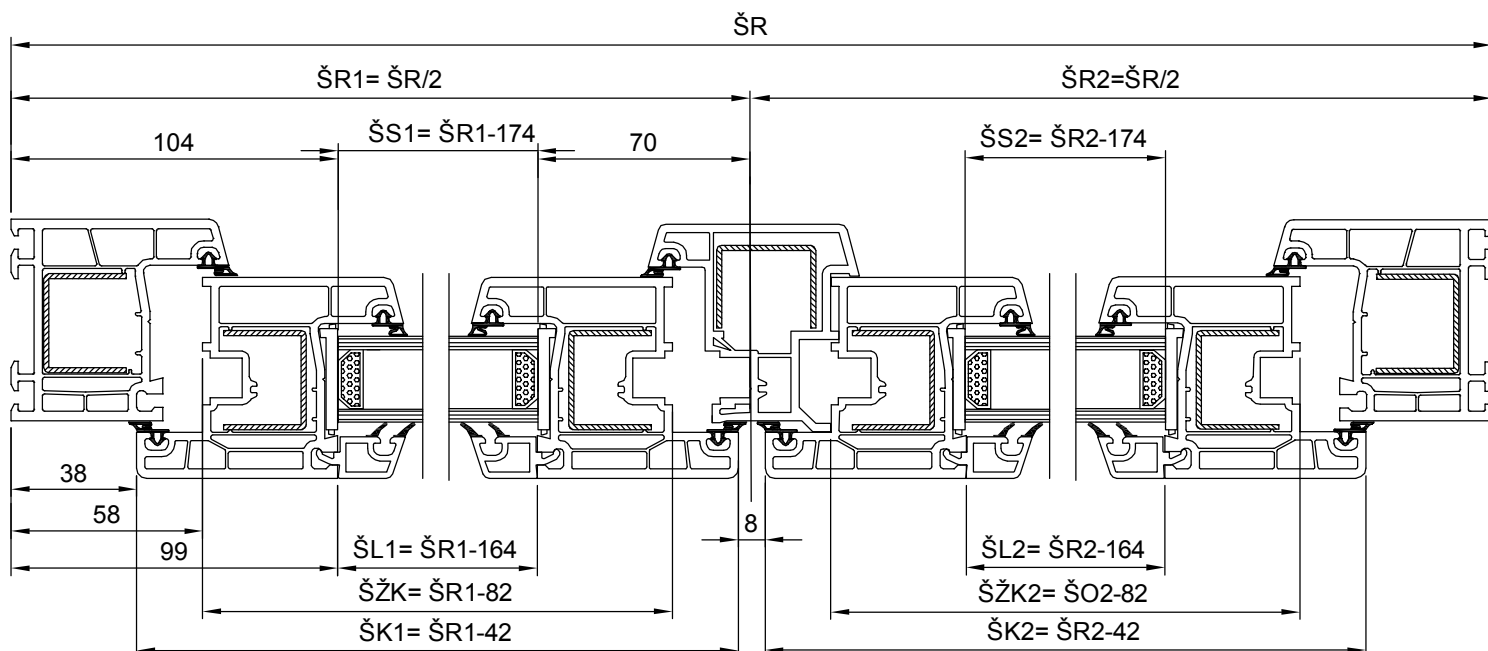
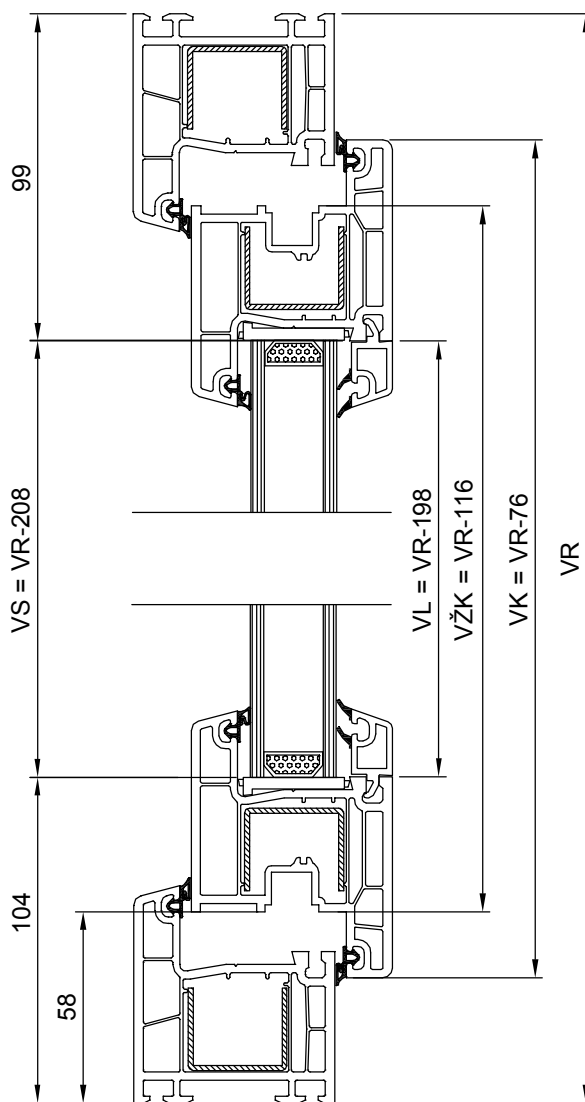
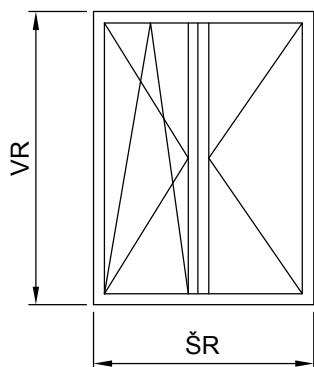
# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 400



# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 400

## LEGENDA

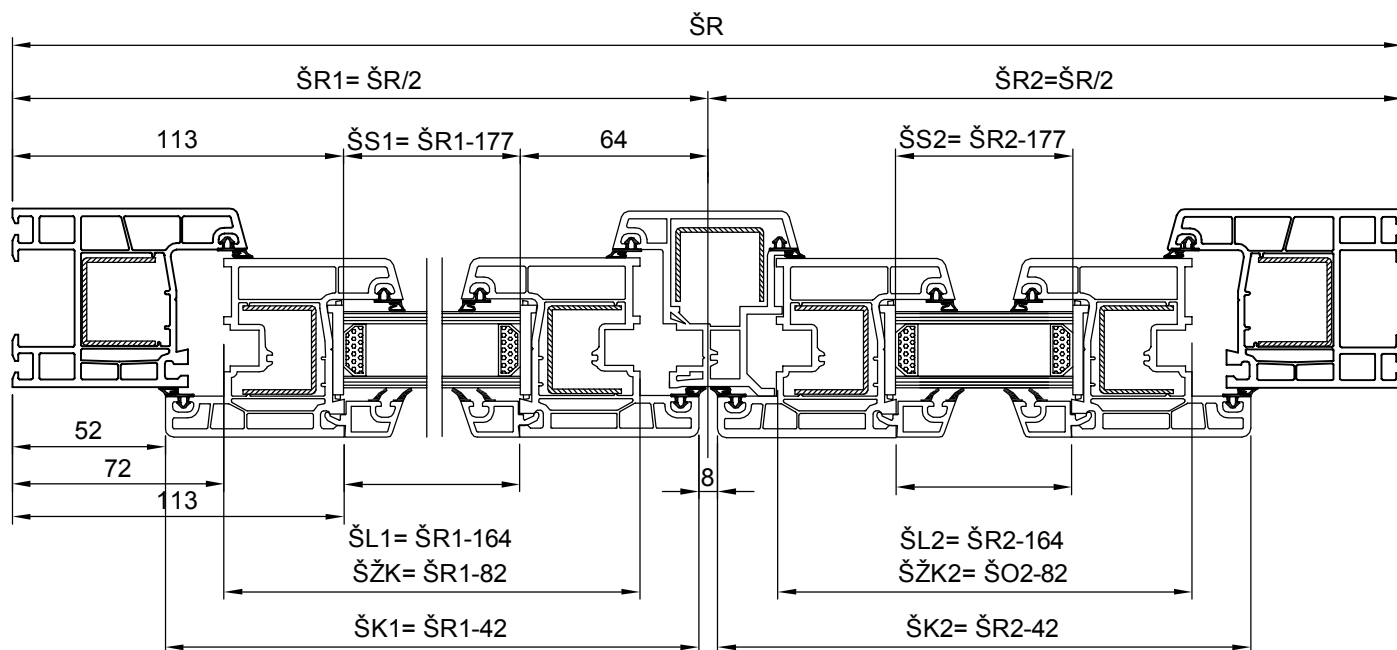
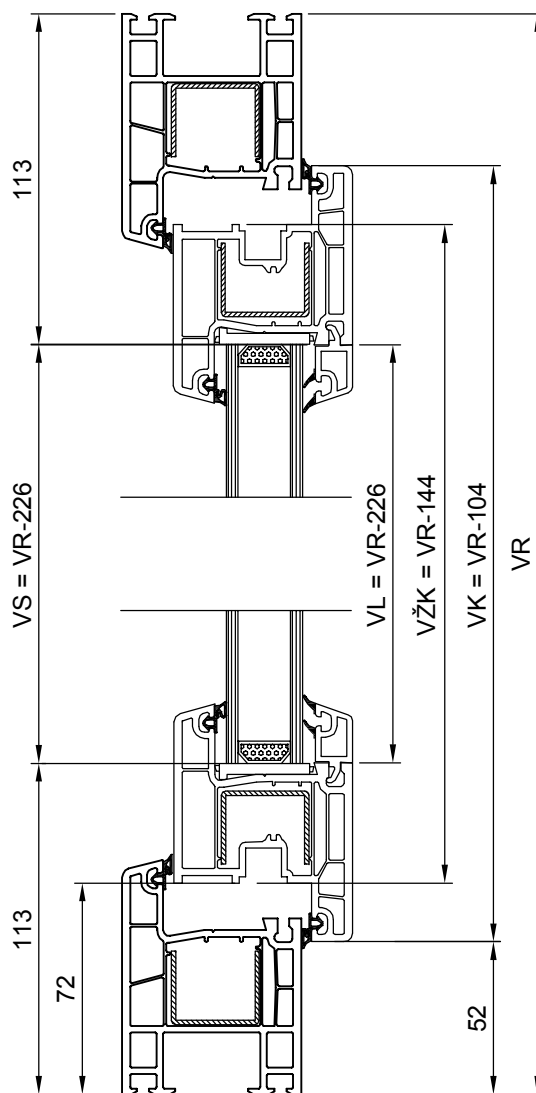
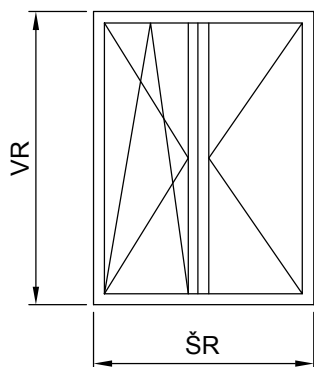
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 VK= VISINA KRILA  
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 VS= VISINA STAKLA



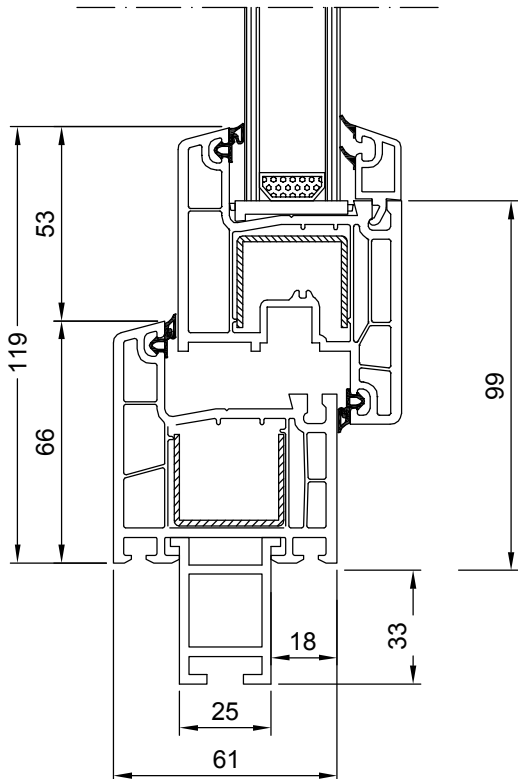
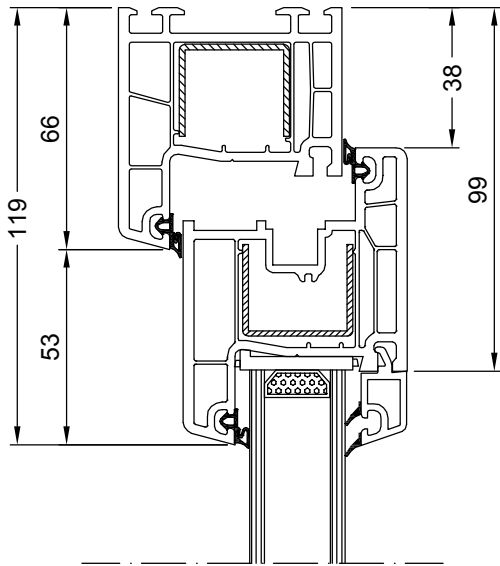
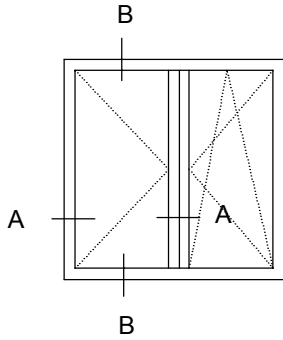
# DVOKRILNI PROZOR SA PREKLOPOM I PROSIRENIM RAMOM SISTEM 400

## LEGENDA

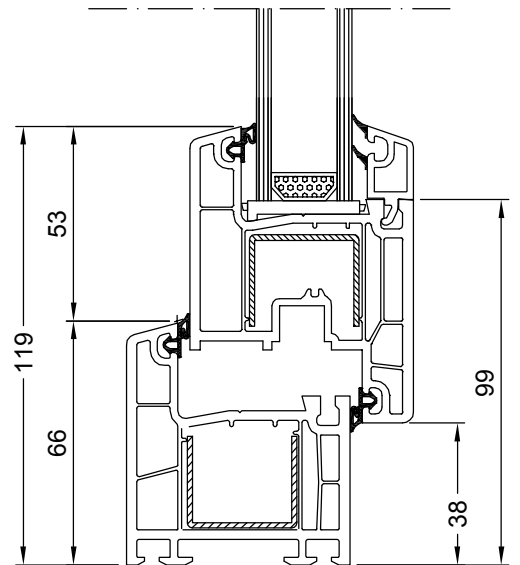
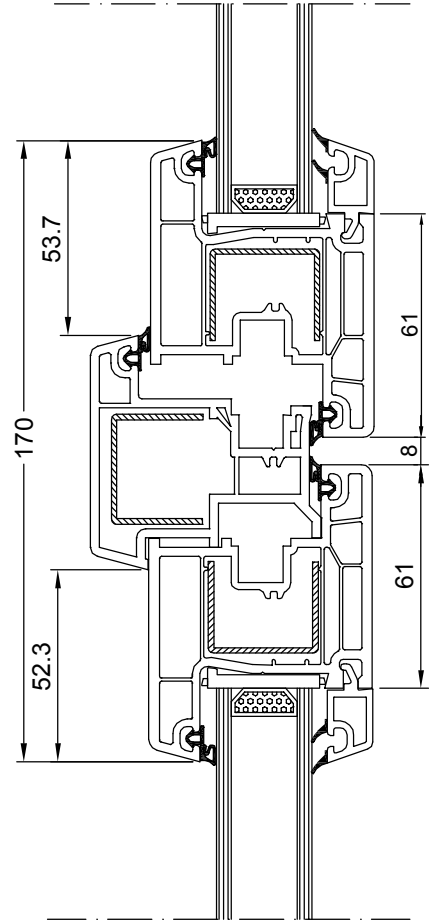
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 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJRBA KRILA  
 ŠL=ŠIRINA LAJSNE  
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# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 400



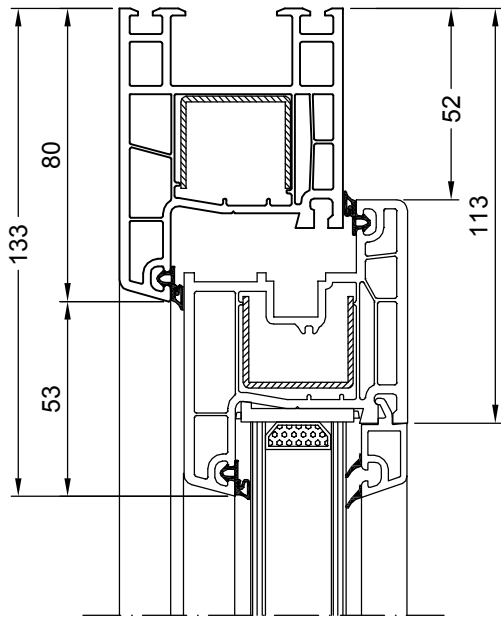
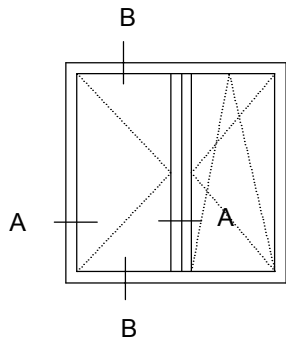
PRESEK "B-B"



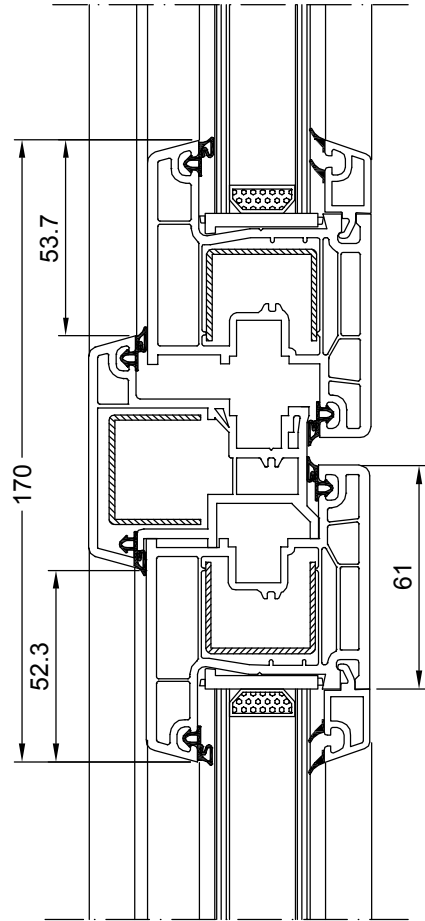
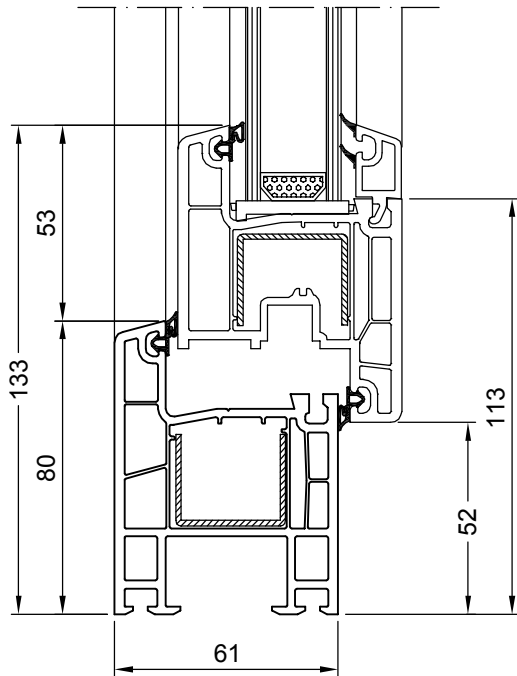
PRESEK "A-A"



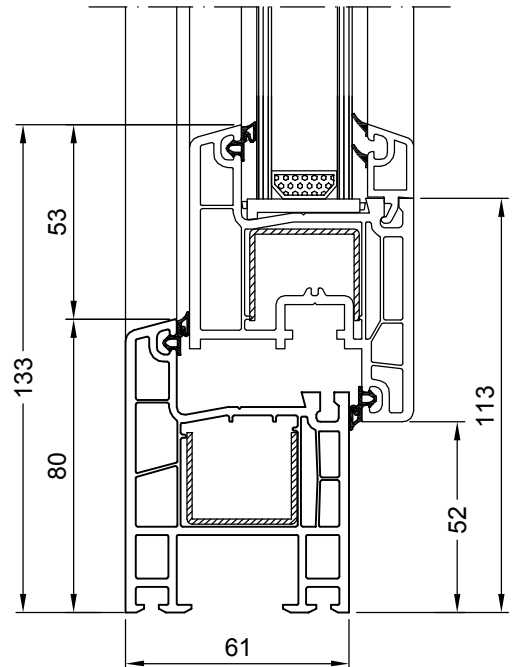
# DVOKRILNI PROZOR SA PREKLOPOM I PROSIRENIM RAMOM SISTEM 400



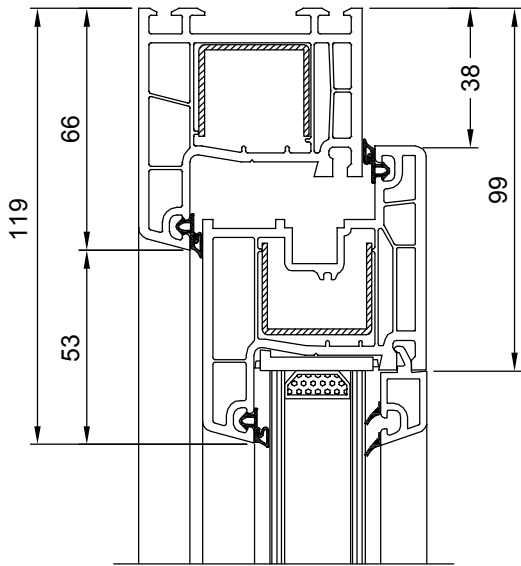
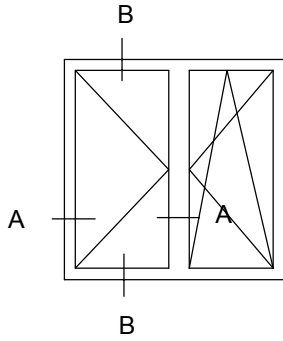
PRESEK "B-B"



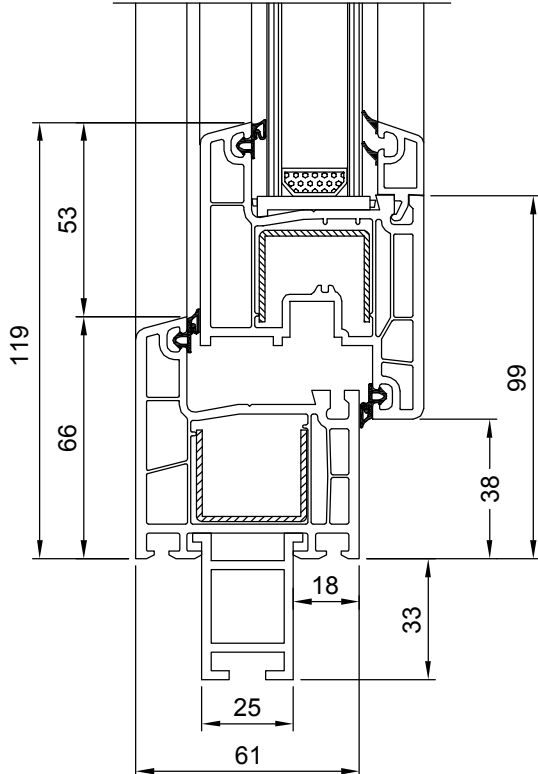
PRESEK "A-A"



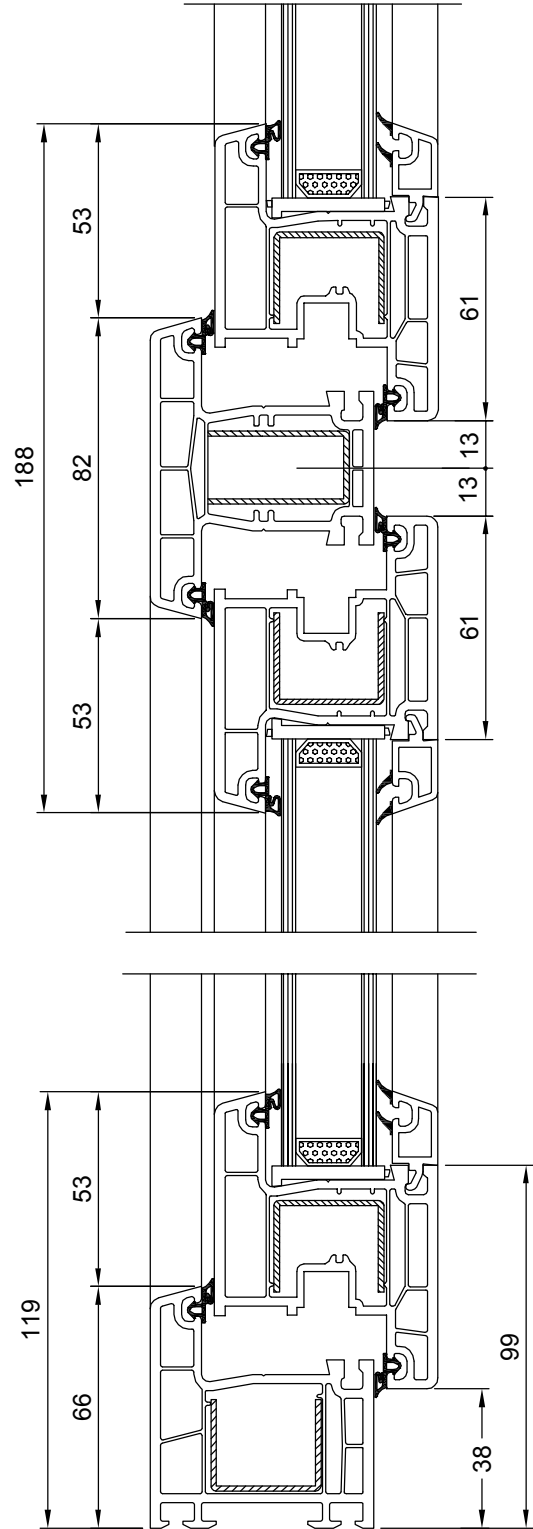
# DVOKRILNI PROZOR SA STUBOM SISTEM 400



PRESEK "B-B"



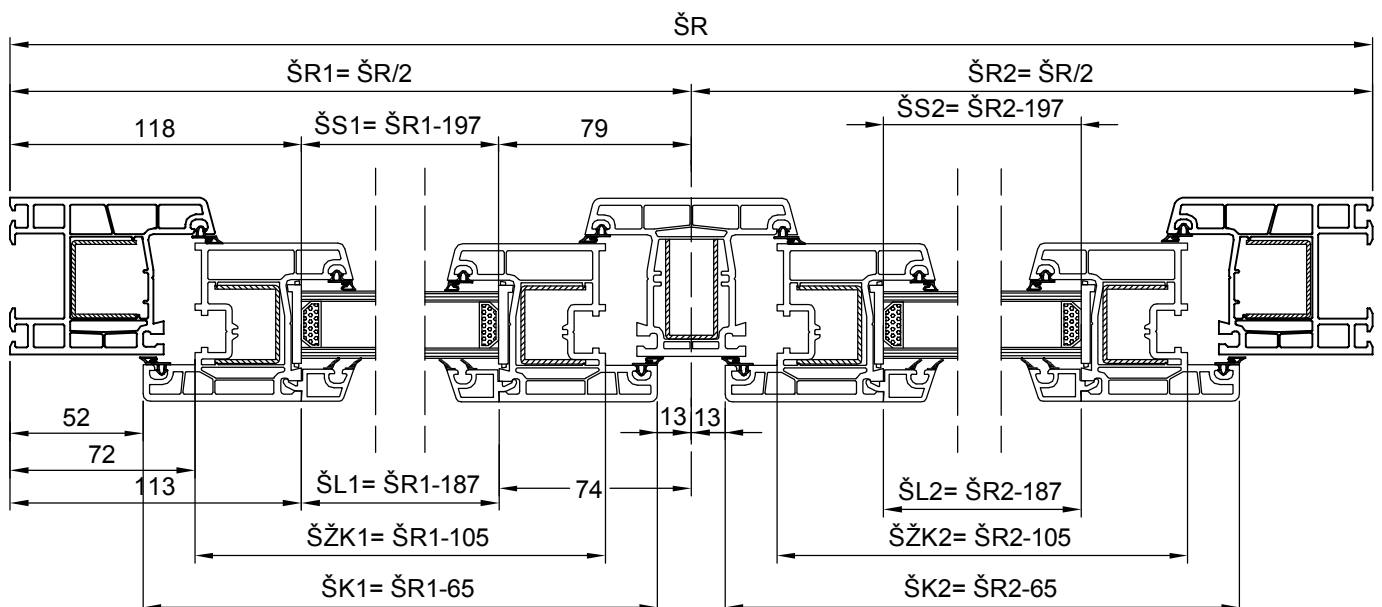
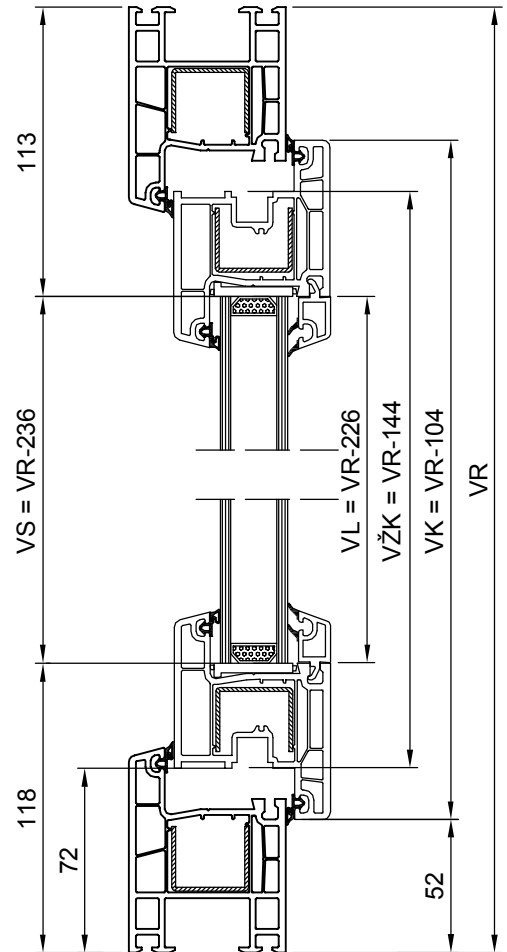
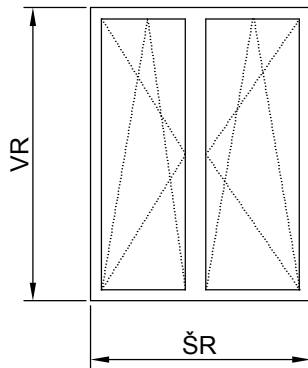
PRESEK "A-A"



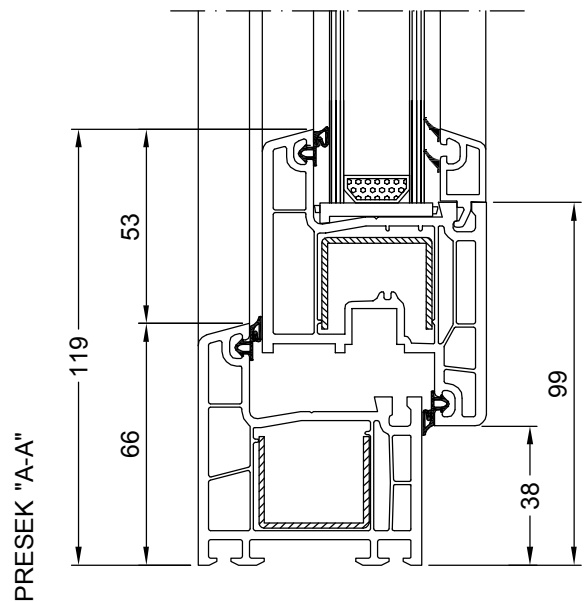
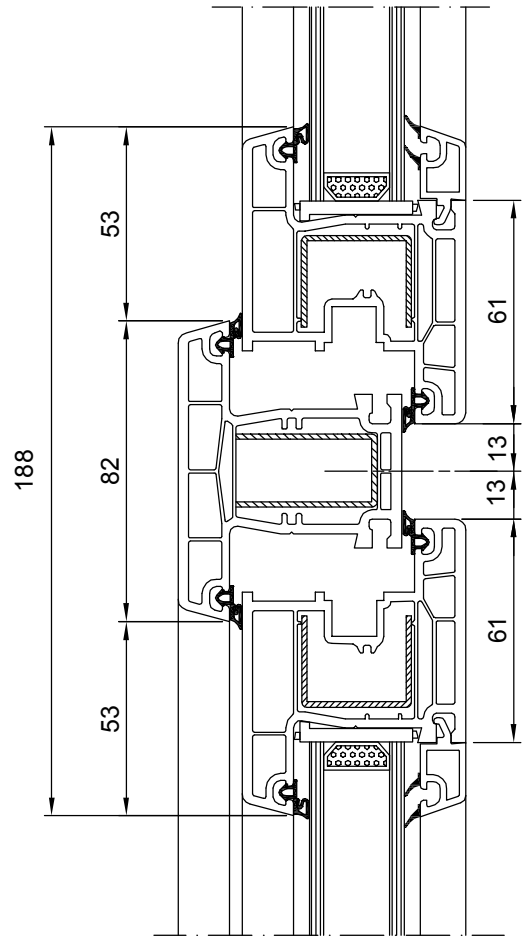
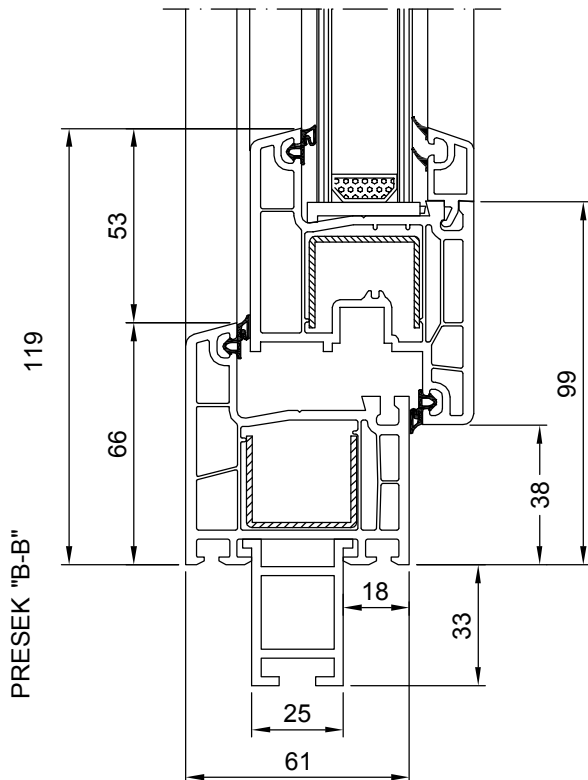
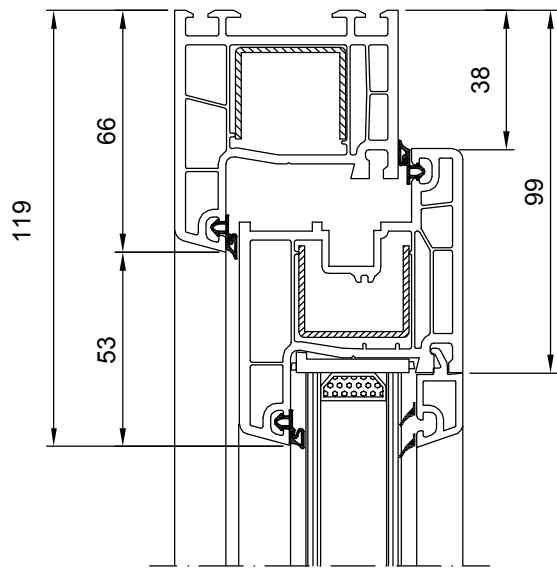
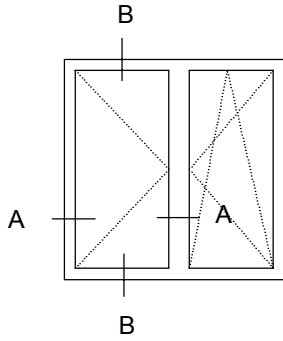
# DVOKRILNI PROZOR SA STUBOM I PROSIRENIM RAMOM SISTEM 400

## LEGENDA

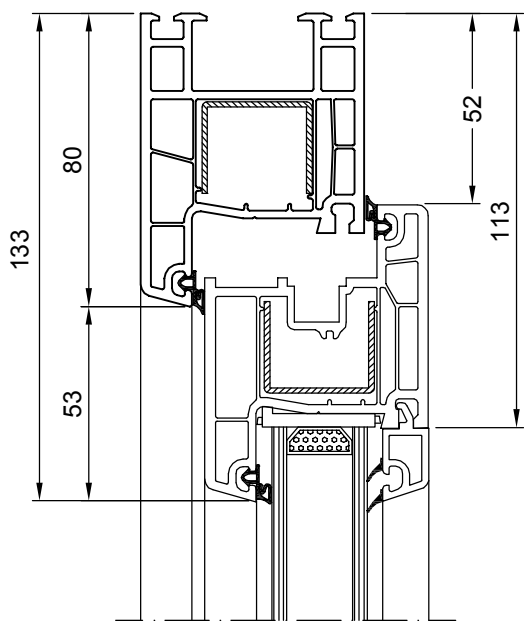
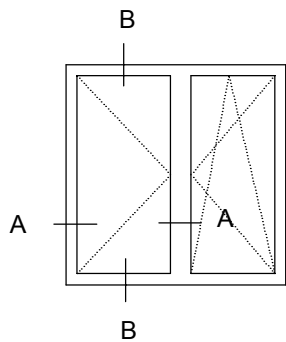
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 VK= VISINA KRILA  
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



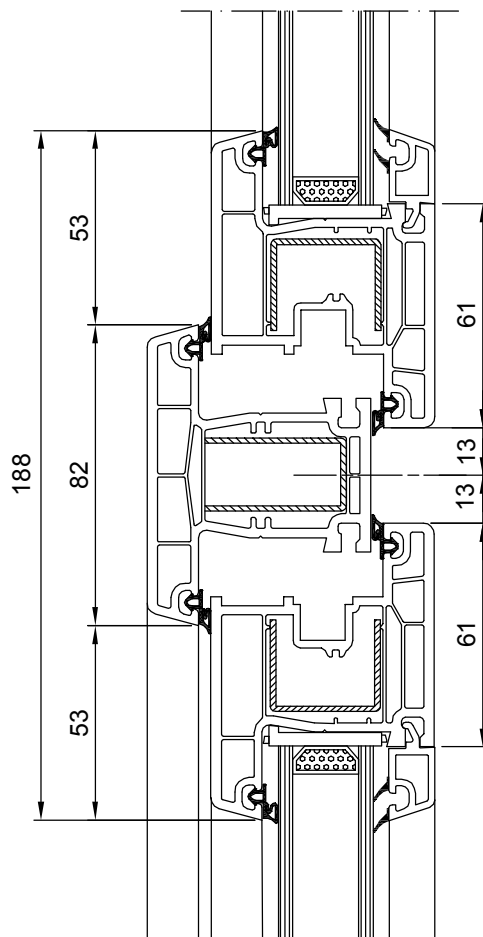
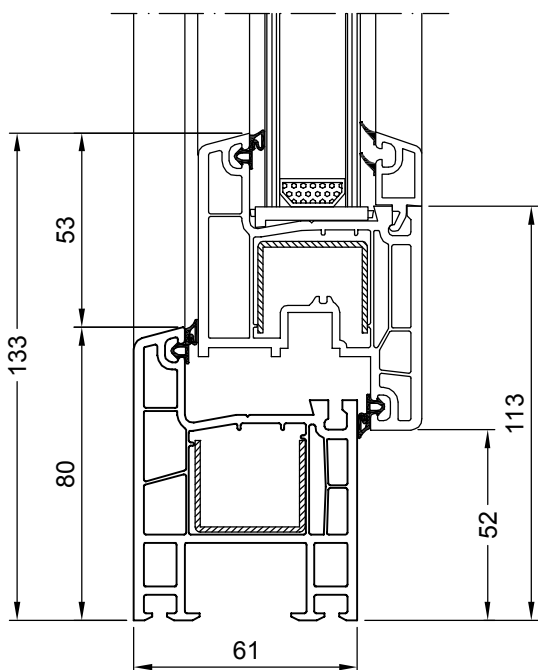
# DVOKRILNI PROZOR SA STUBOM SISTEM 400



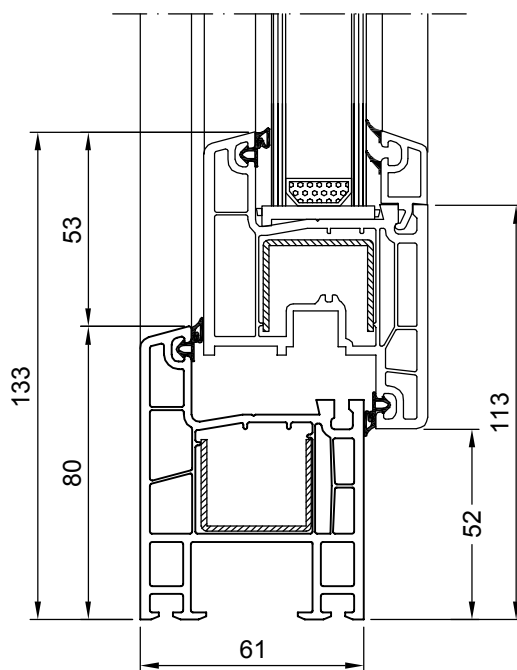
# DVOKRILNI PROZOR SA STUBOM I PROSIRENIM RAMOM SISTEM 400



PRESEK "B-B"



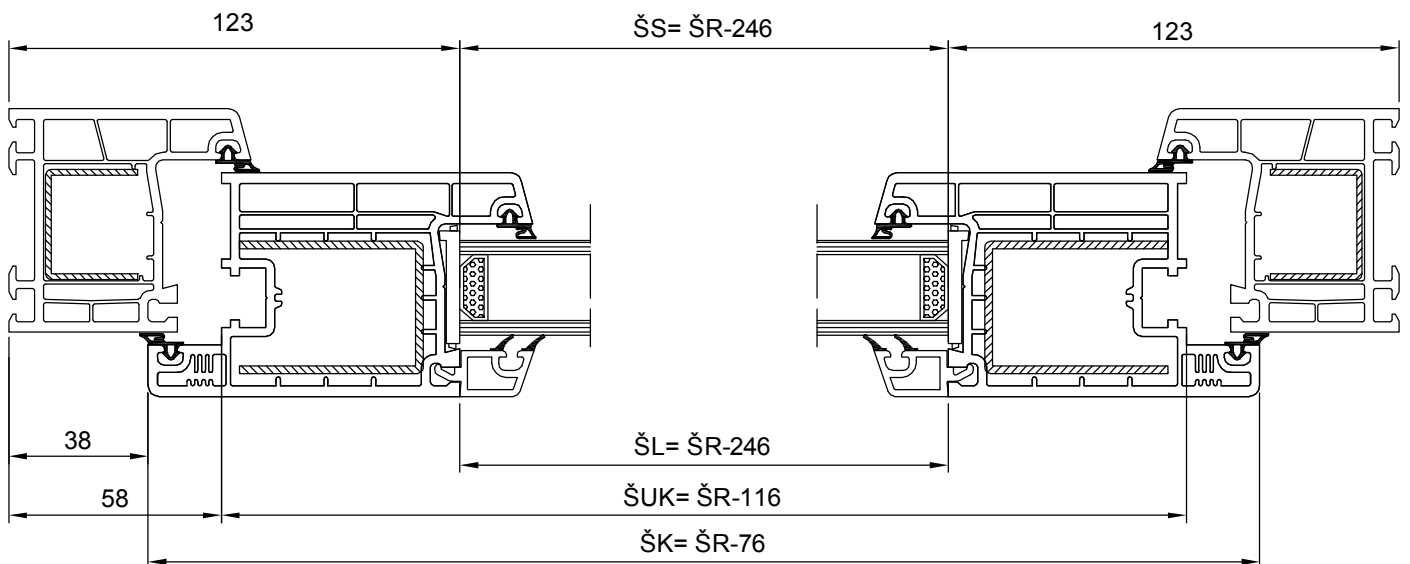
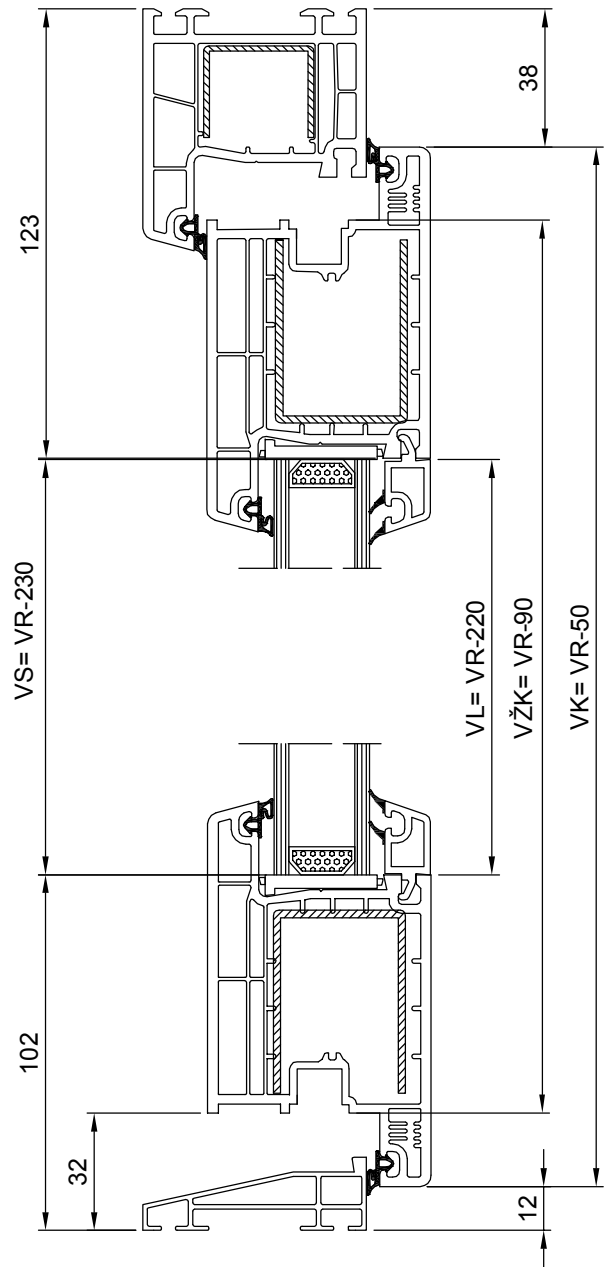
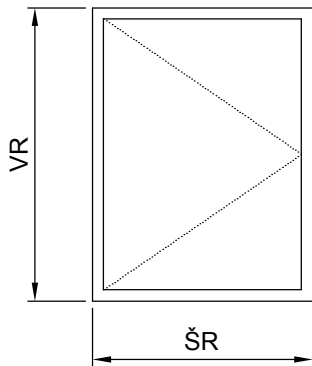
PRESEK "A-A"



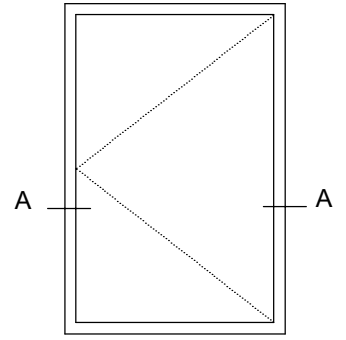
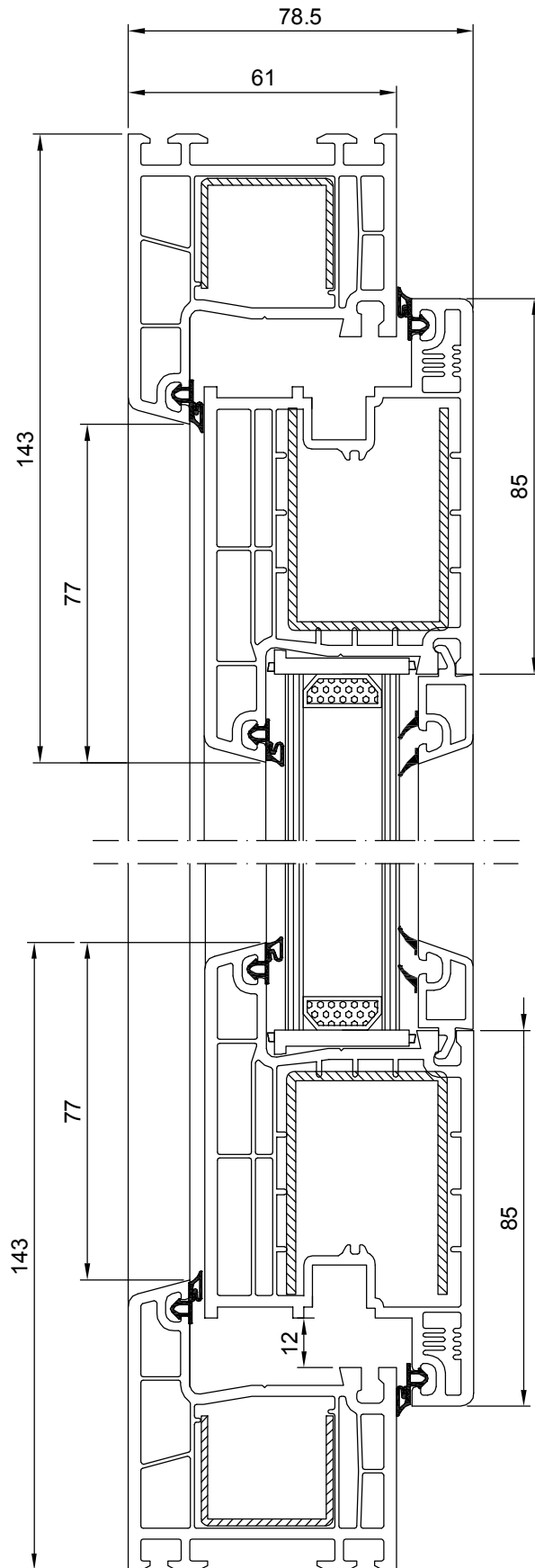
# ULAZNA VRATA SISTEM 400

## LEGENDA

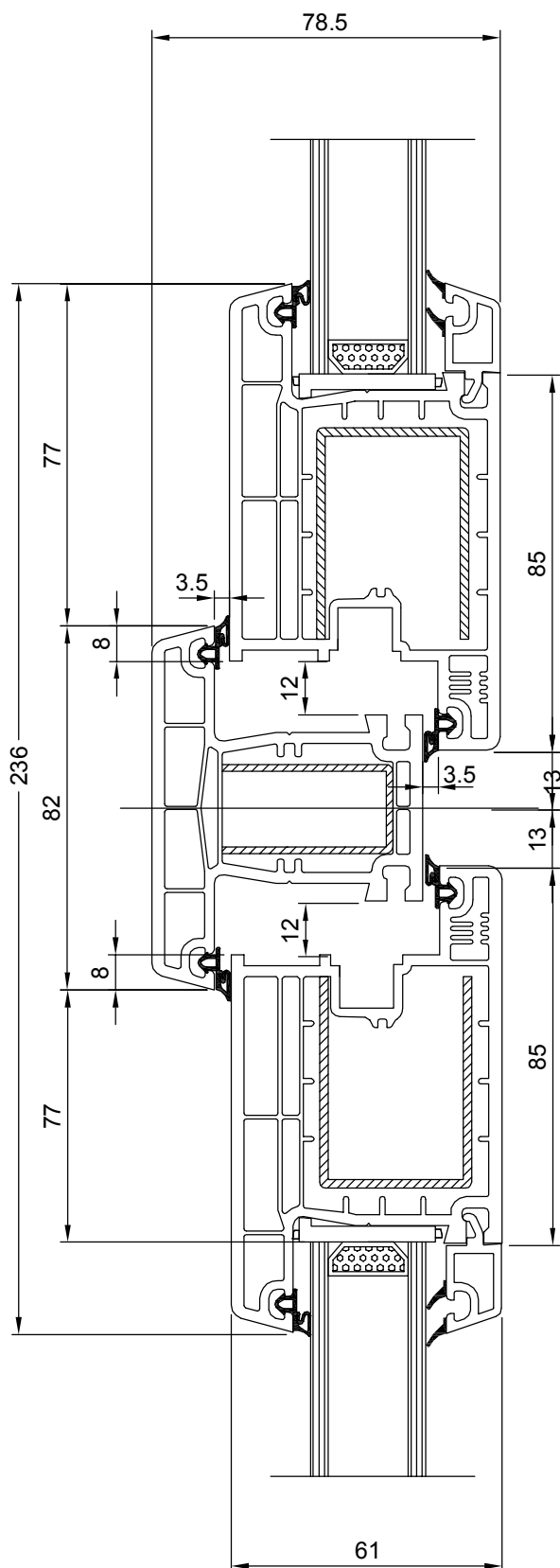
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 VK= VISINA KRILA  
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 VŽK= VISINA ŽLJEBA KRILA  
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 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# ULAZNA VRATA SISTEM 400

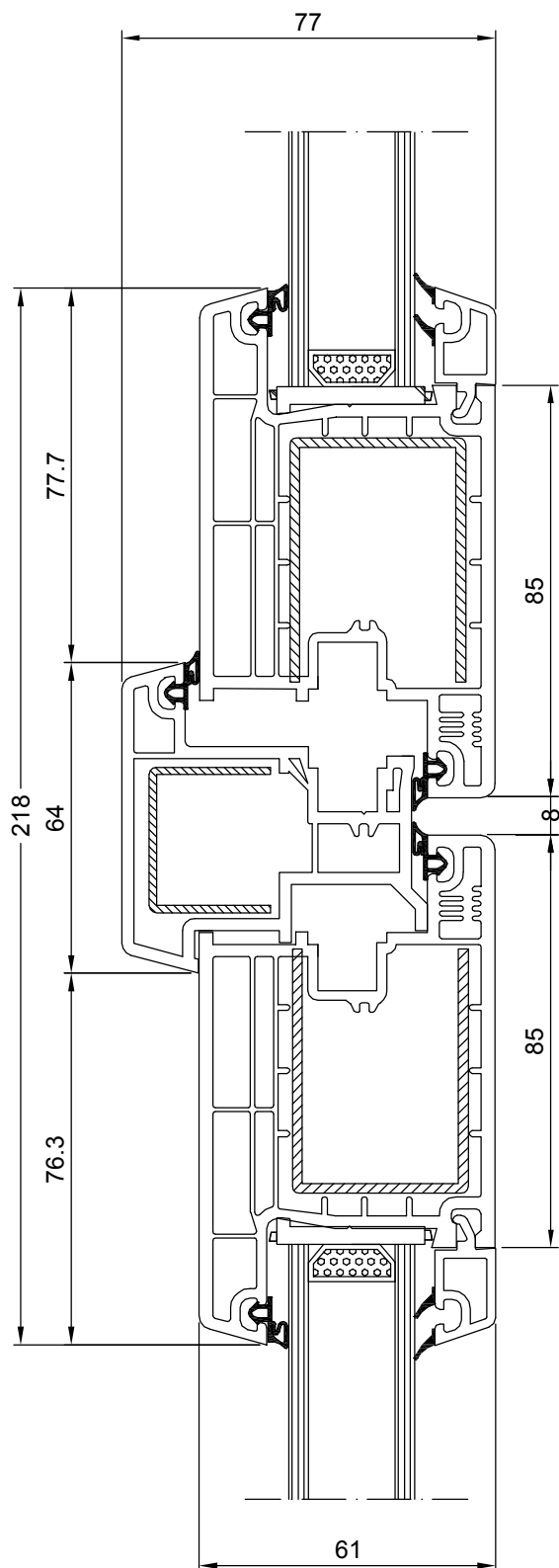


# PRESEK VRATA KRILO-STUB-KRILO SISTEM 400





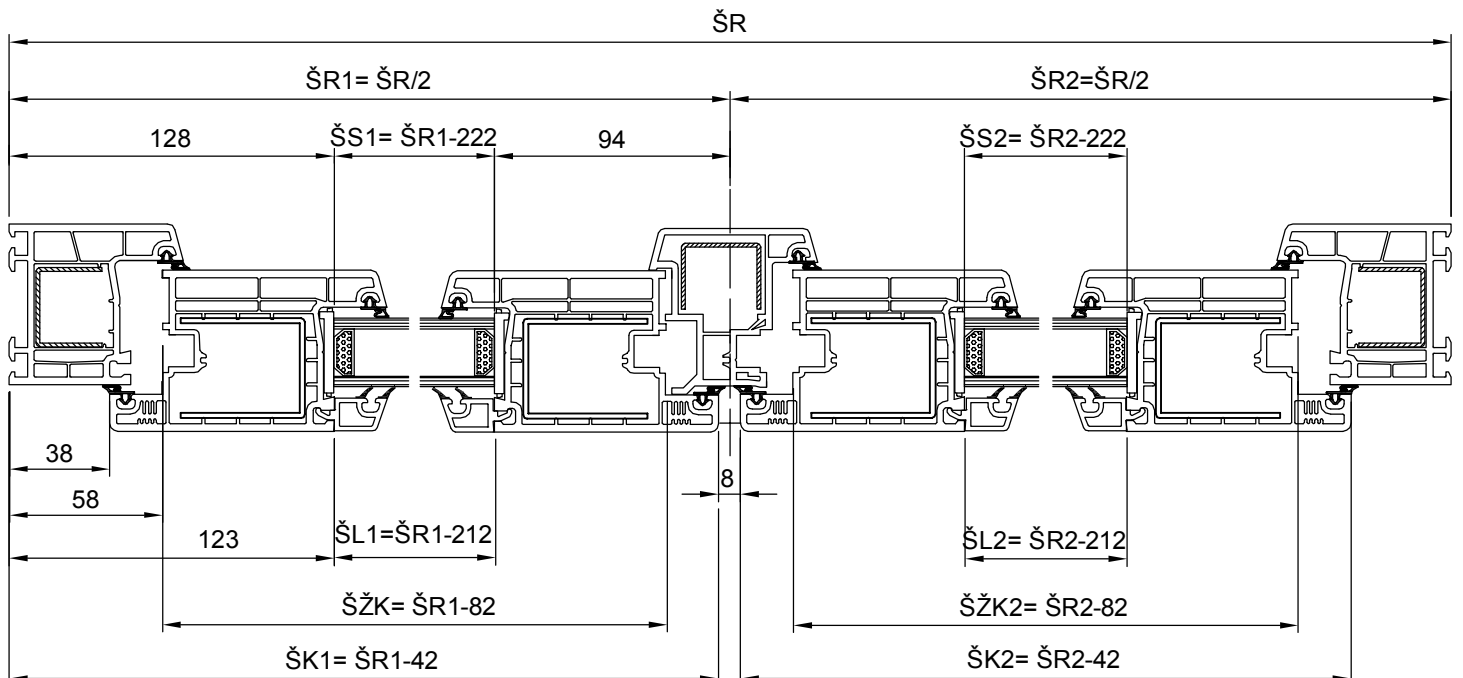
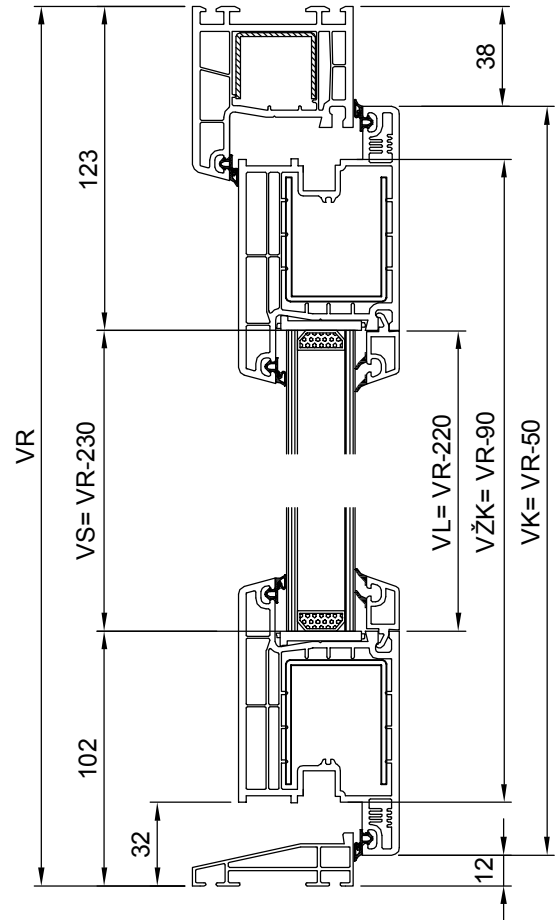
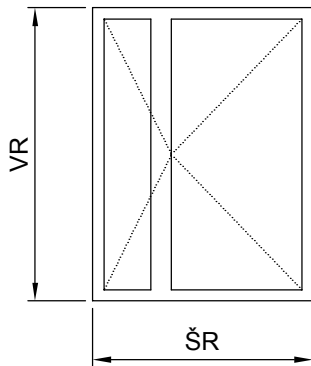
# PRESEK VRATA KRILO-PREKLOP-KRILO SISTEM 400



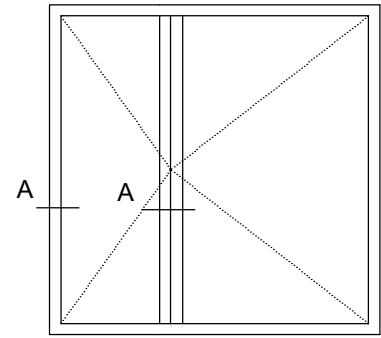
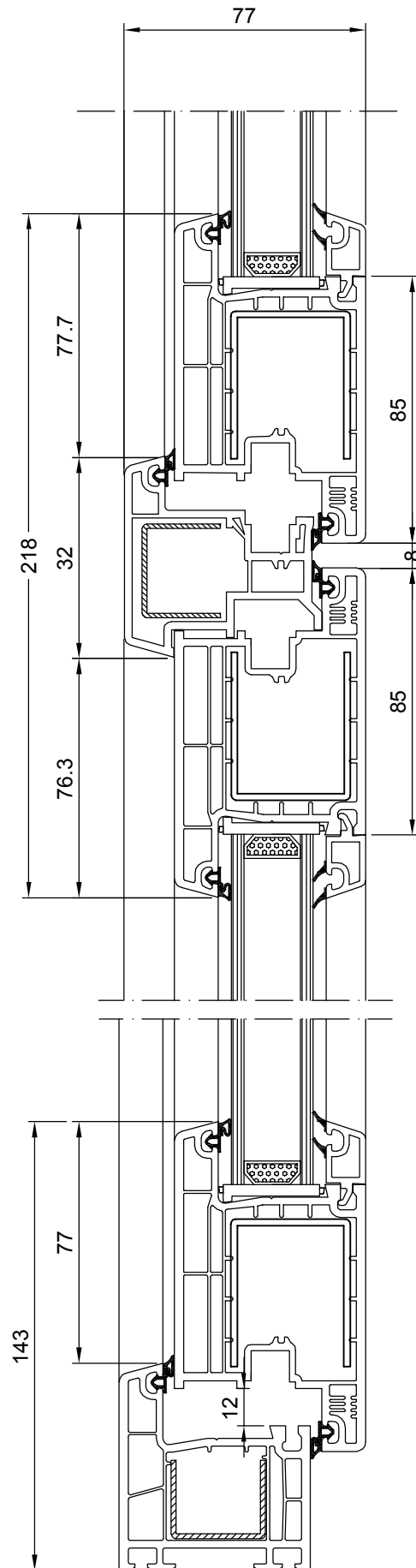
# DVOKRILNA ULAZNA VRATA SISTEM 400

## LEGENDA

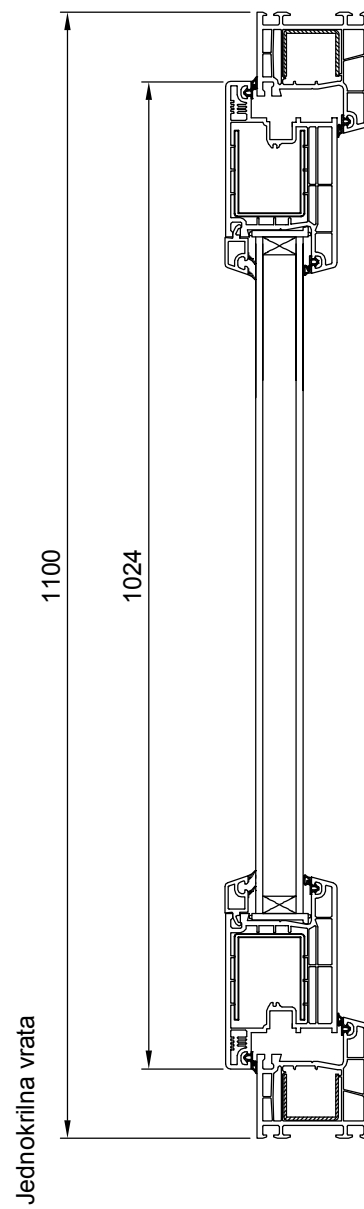
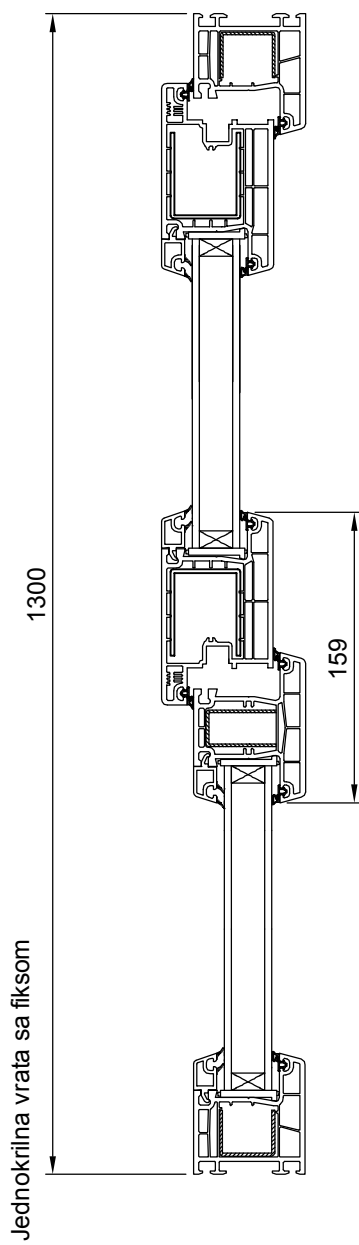
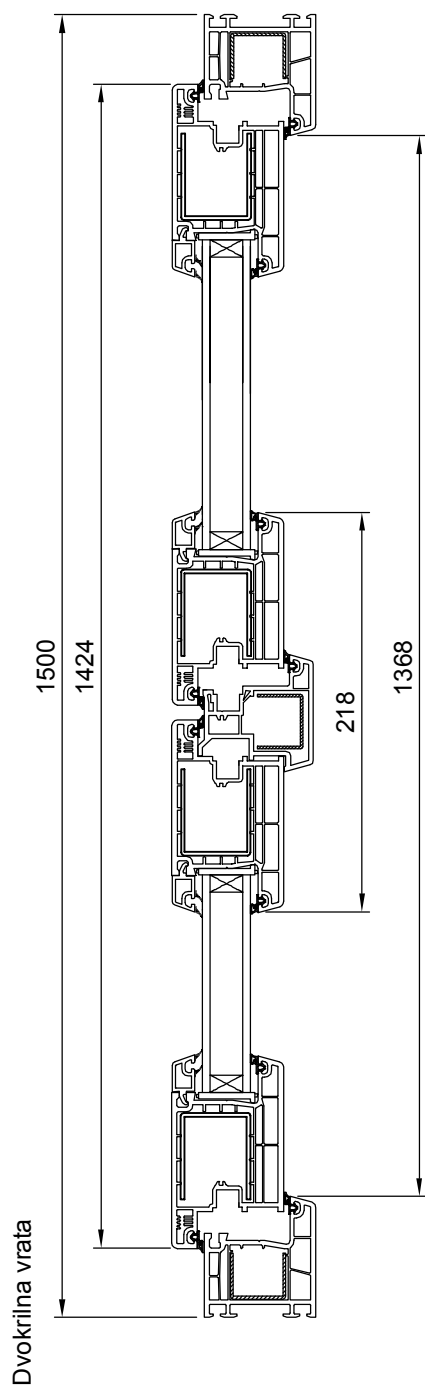
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 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



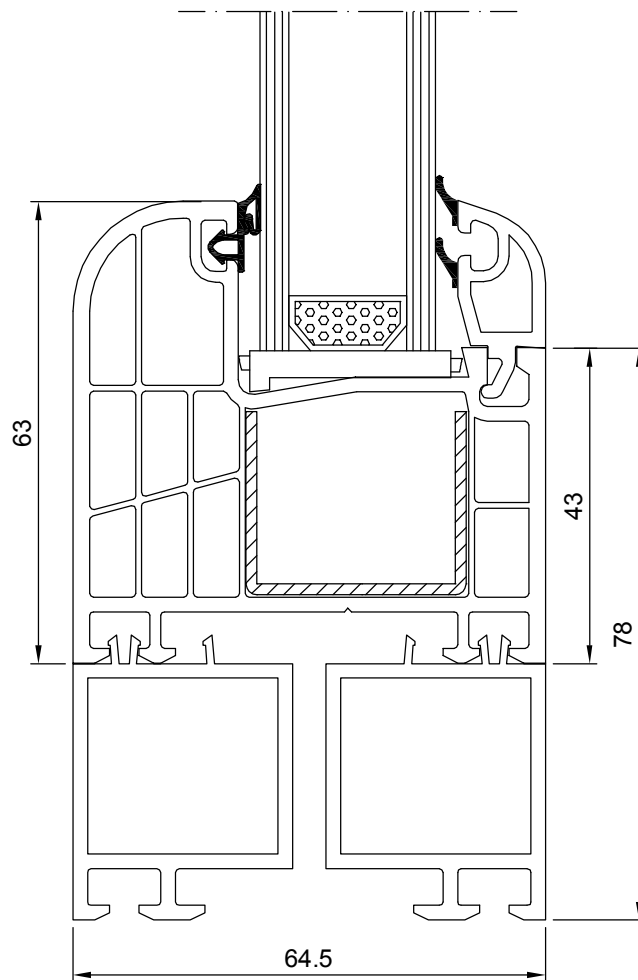
# DVOKRILNA ULAZNA VRATA SISTEM 400



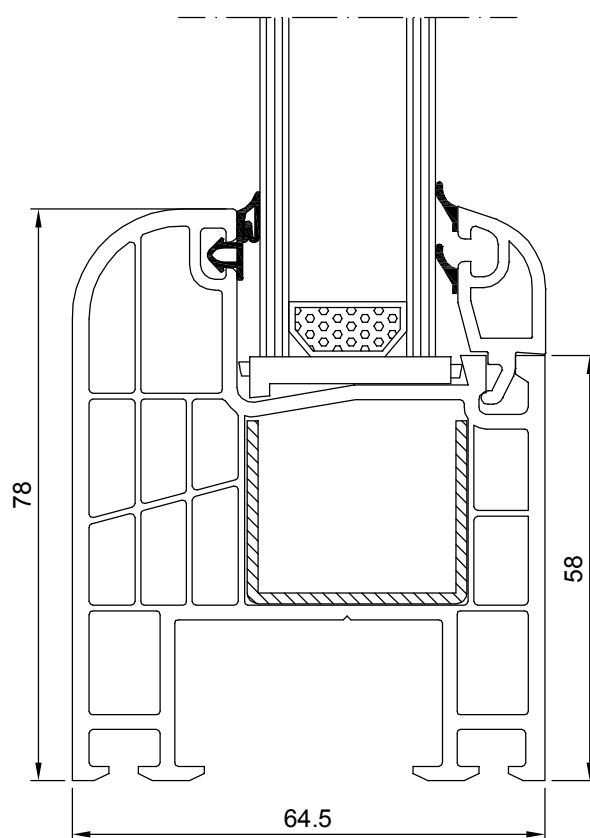
# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA SISTEM 400



PRESEK PROZORA  
NASTAVAK RAMA - RAM  
SISTEM 500



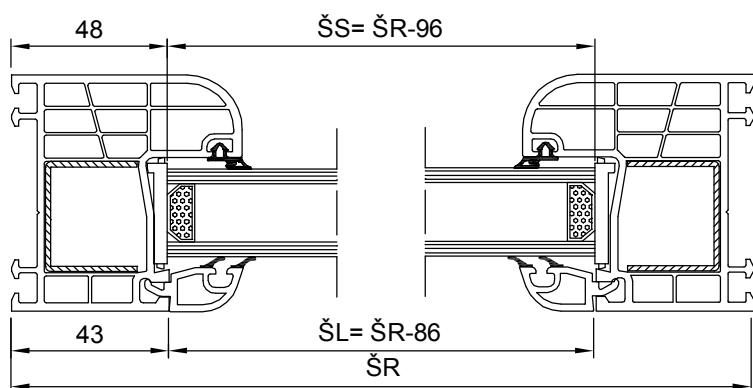
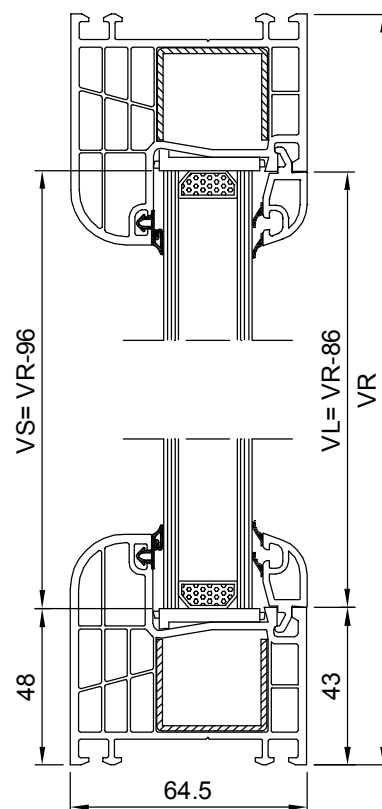
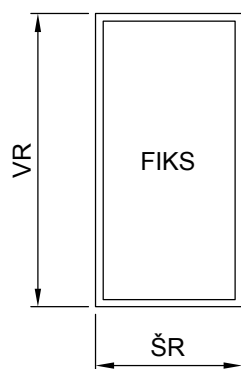
# PRESEK PROZORA - PROŠIRENI RAM SISTEM 500



# FIKSNI PROZOR SISTEM 500

## LEGENDA

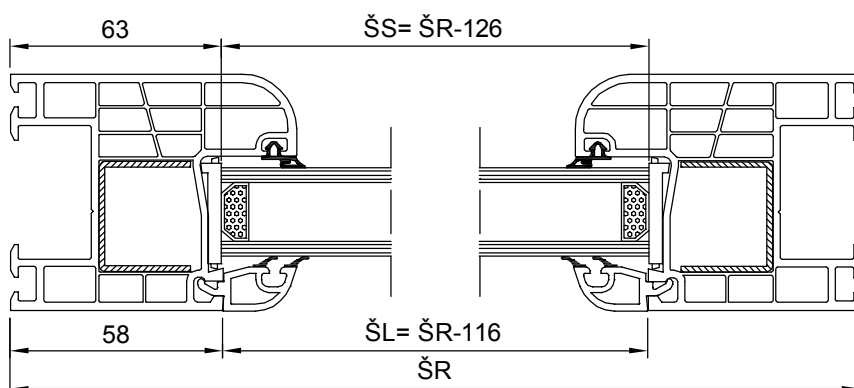
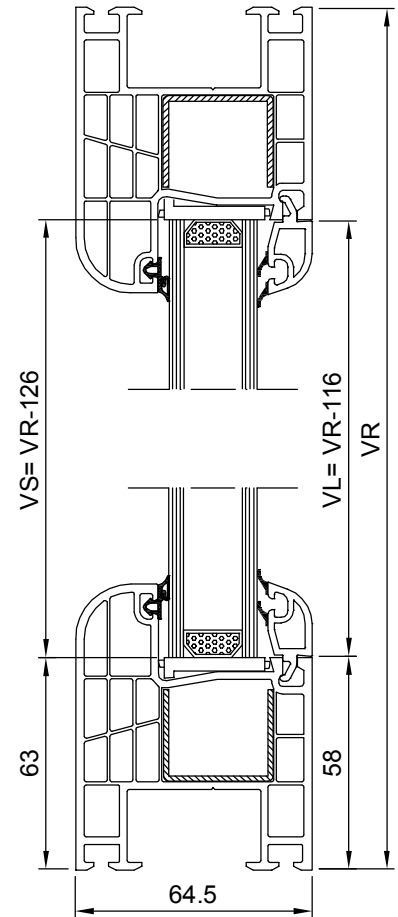
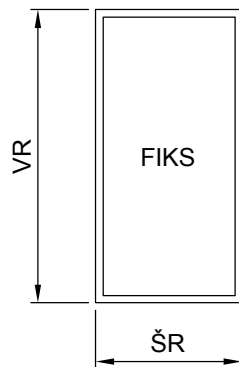
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VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



# FIKSNI PROZOR SA PROŠIRENIM RAMOM SISTEM 500

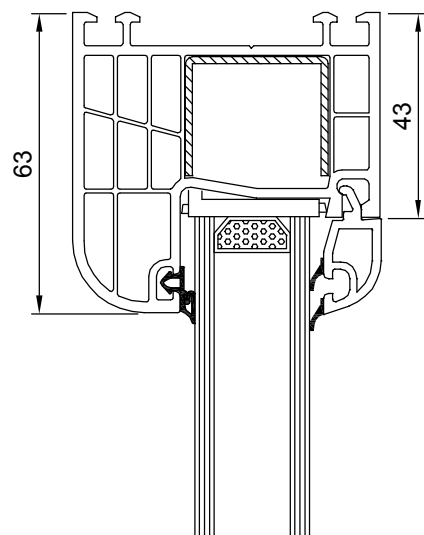
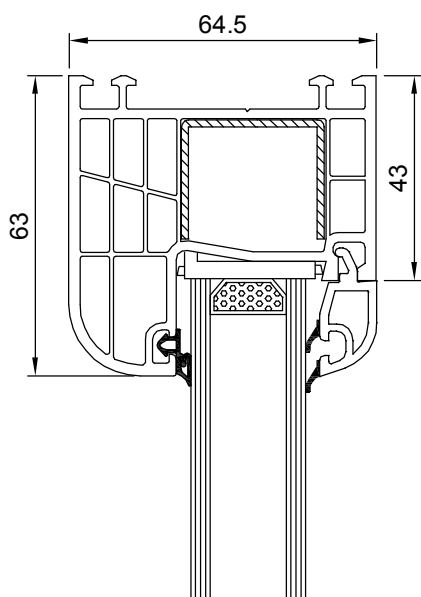
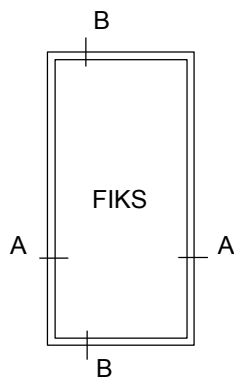
## LEGENDA

ŠR= ŠIRINA RAMA  
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ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA

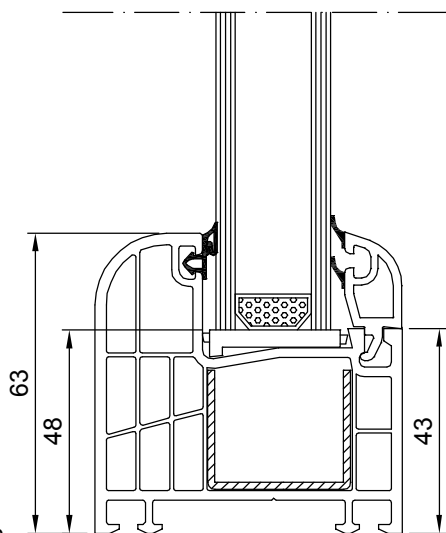




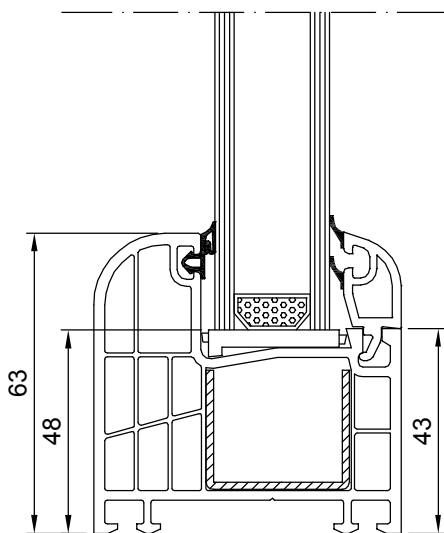
# FIKSNI PROZOR SISTEM 500



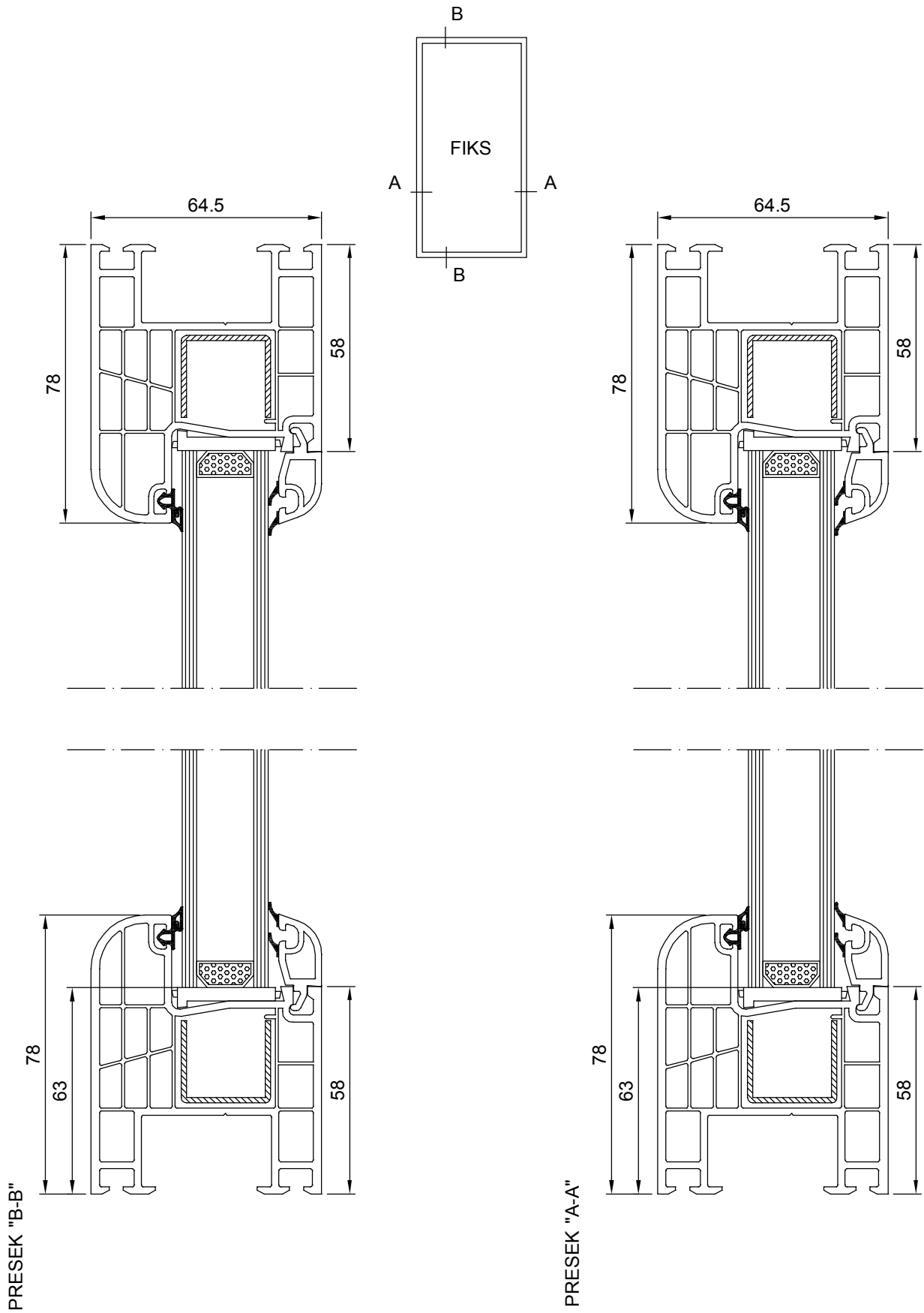
PRESEK "B-B"



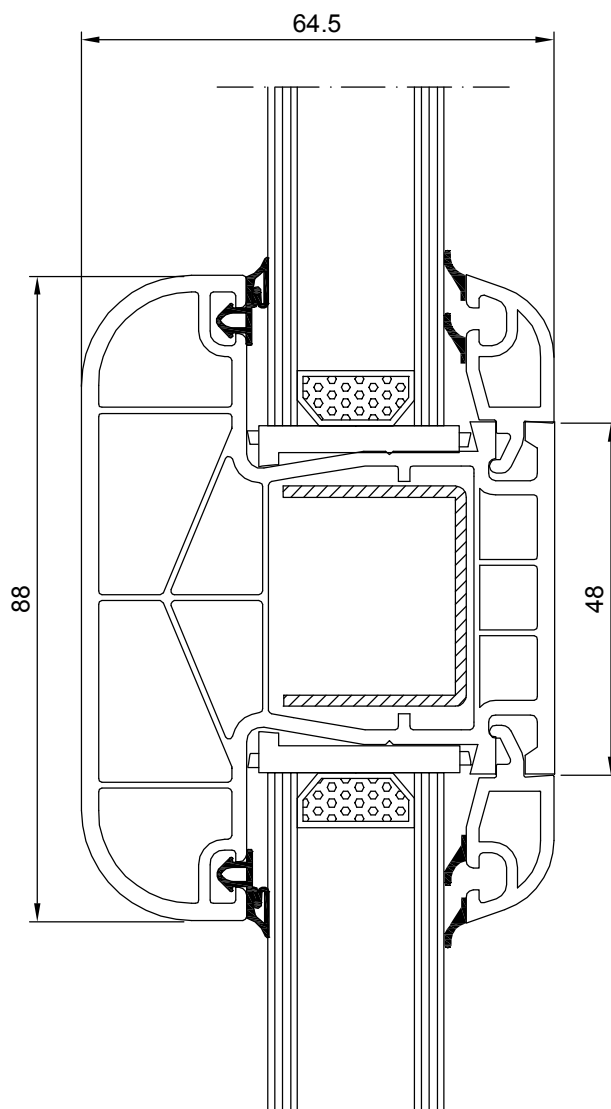
PRESEK "A-A"



# FIKSNİ PROZOR SA PROŠIRENIM RAMOM SISTEM 500



PRESEK PROZORA  
STUB - LAJSNA ZA STAKLO  
SISTEM 500

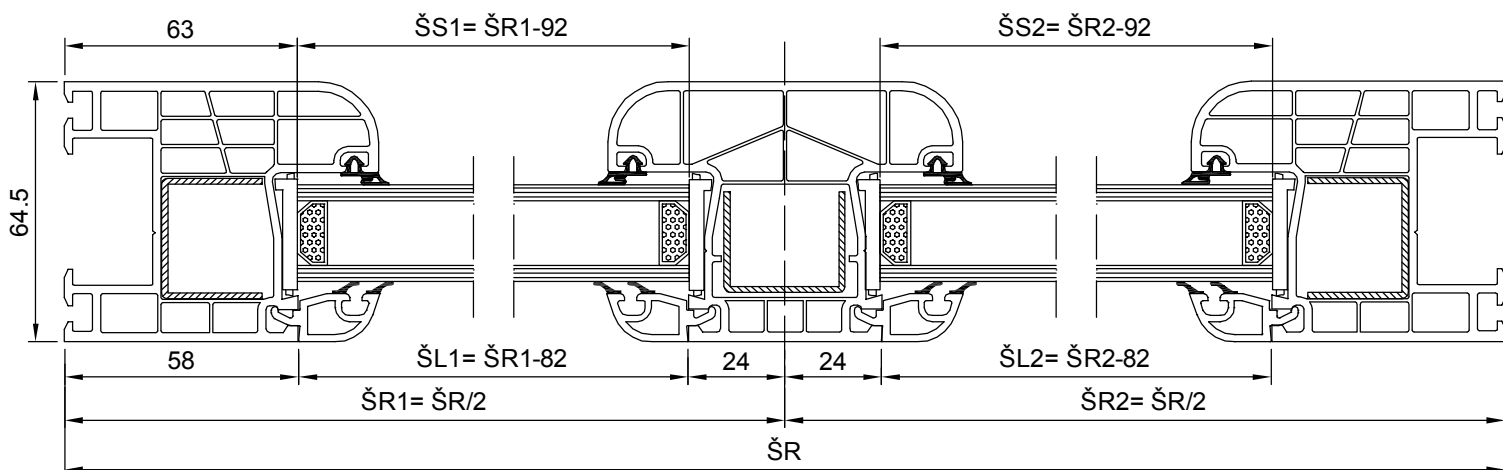
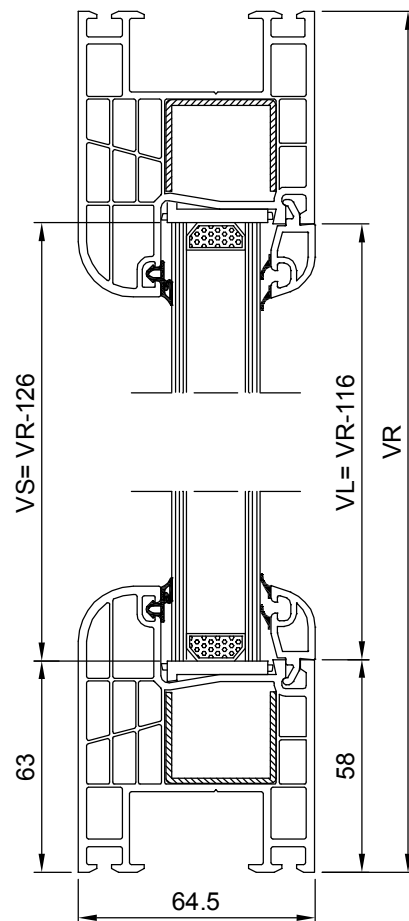
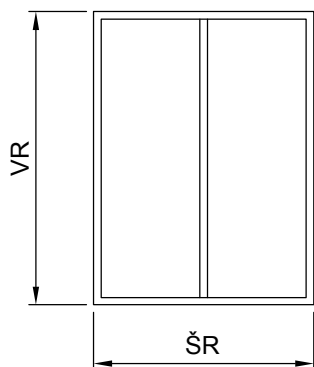




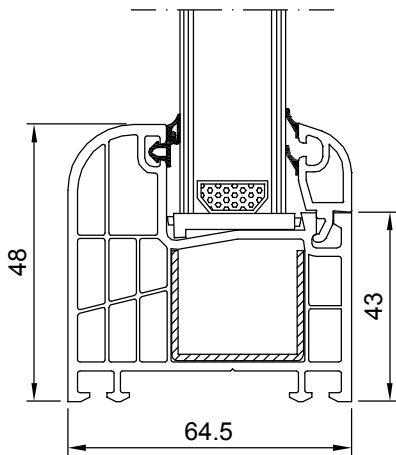
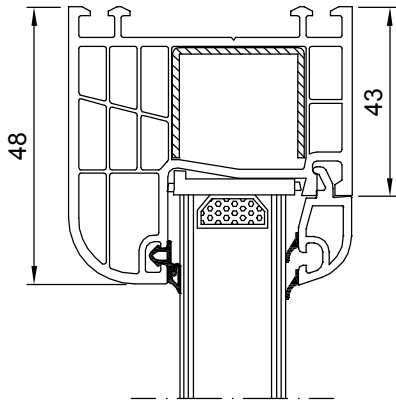
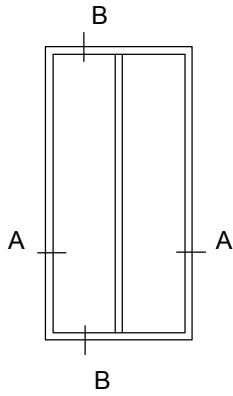
# FIKSNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 500

## LEGENDA

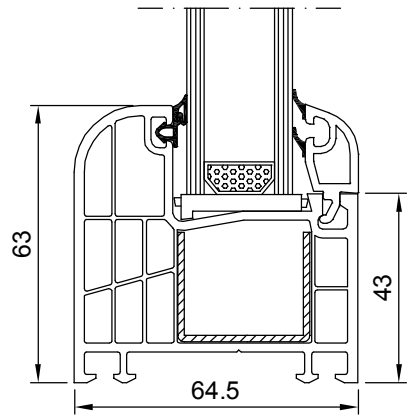
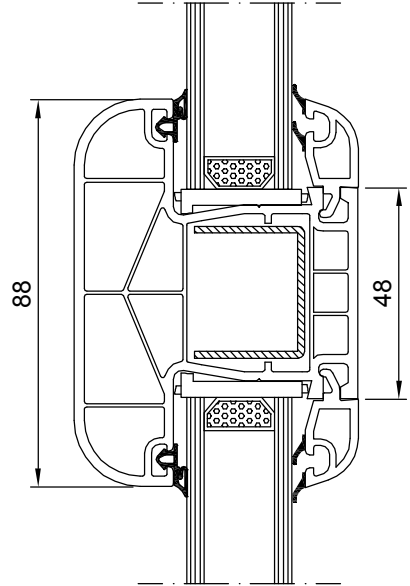
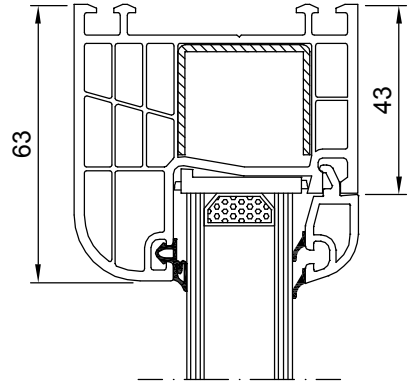
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 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# FIKSNI PROZOR SA STUBOM SISTEM 500

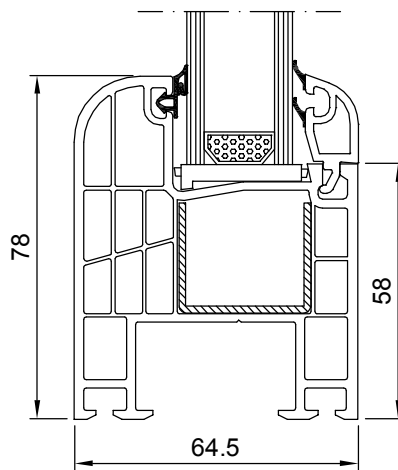
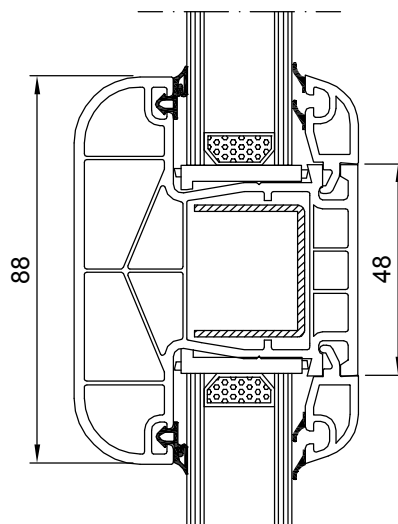
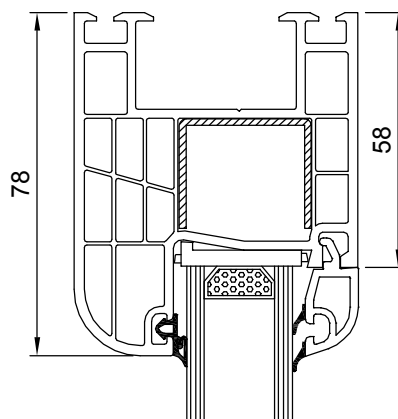
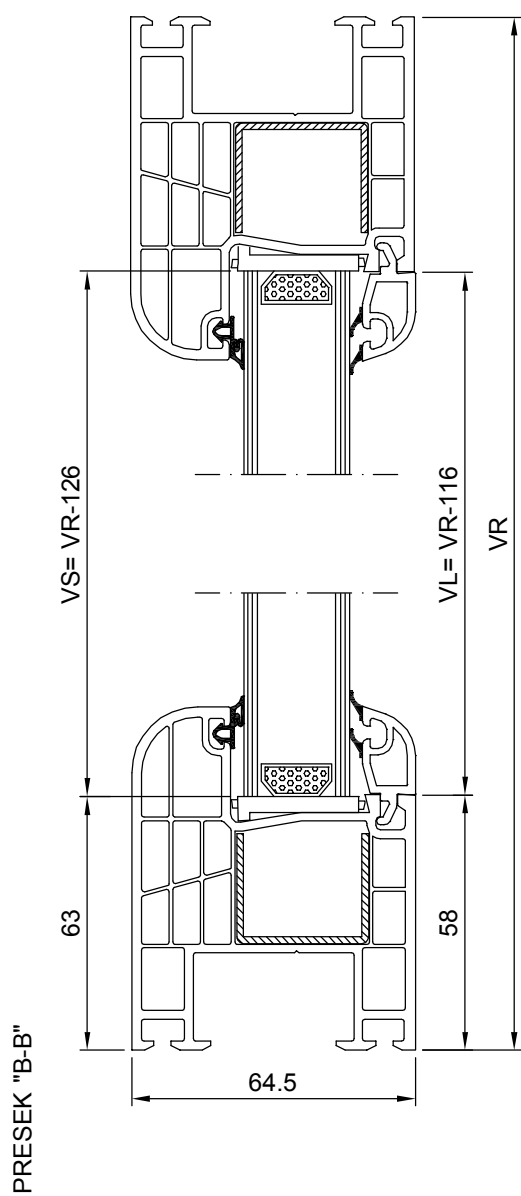
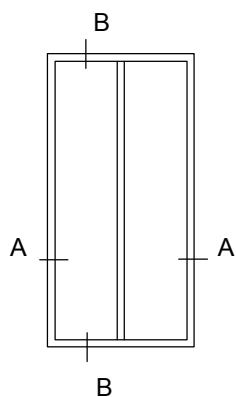


PRESEK "B-B"

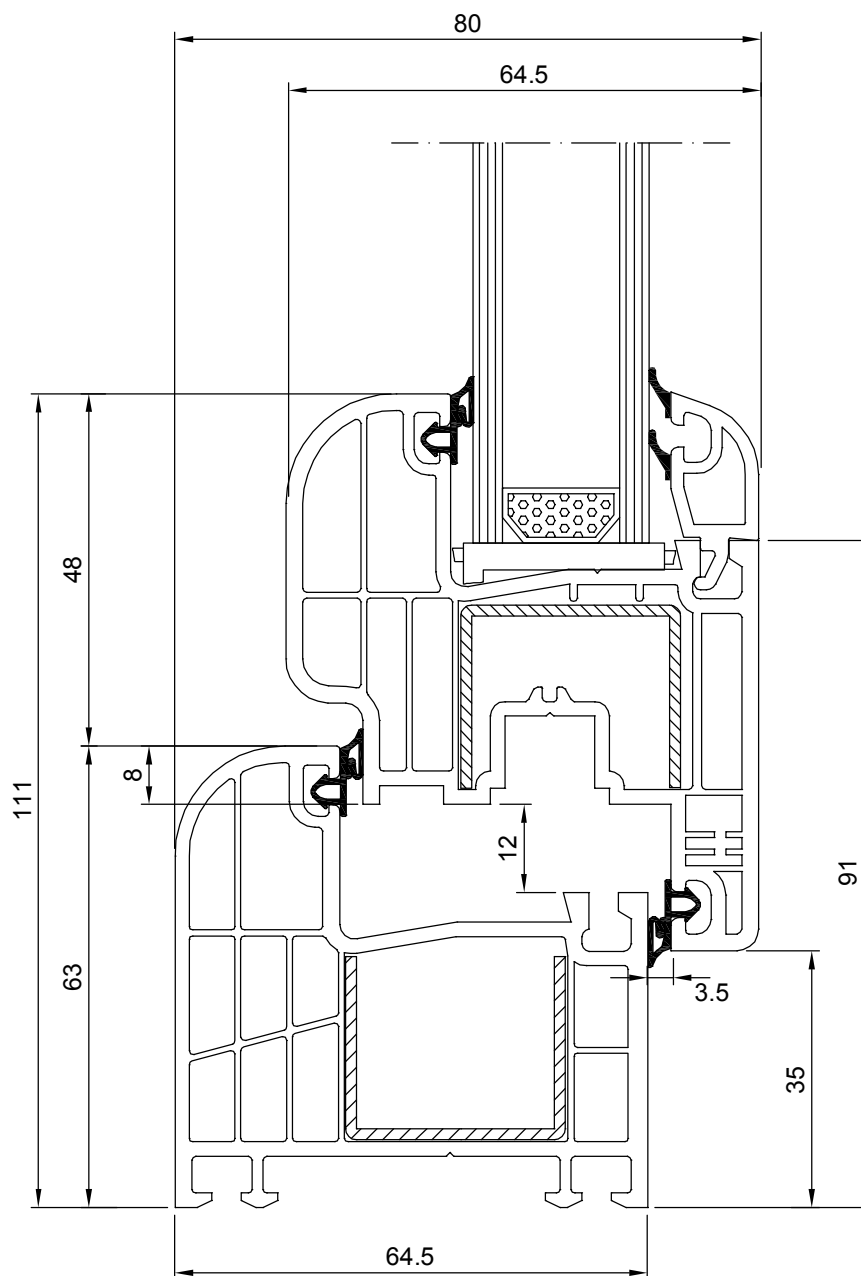


PRESEK "A-A"

# FIKSNI PROZOR SA STUBOM I PRO ŠIRENIM RAMOM SISTEM 500

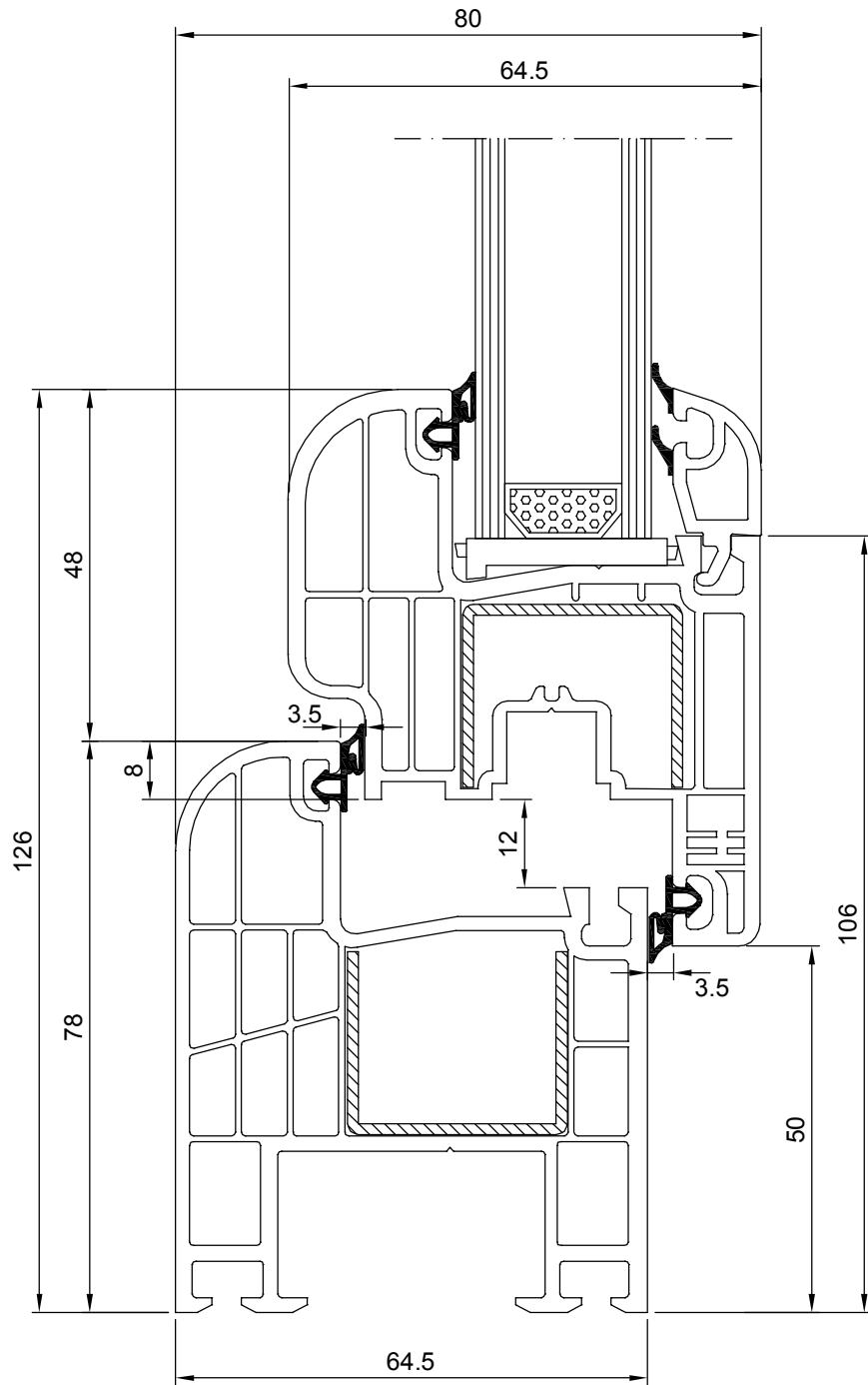


# PRESEK PROZORA RAM-KRILO SISTEM 500





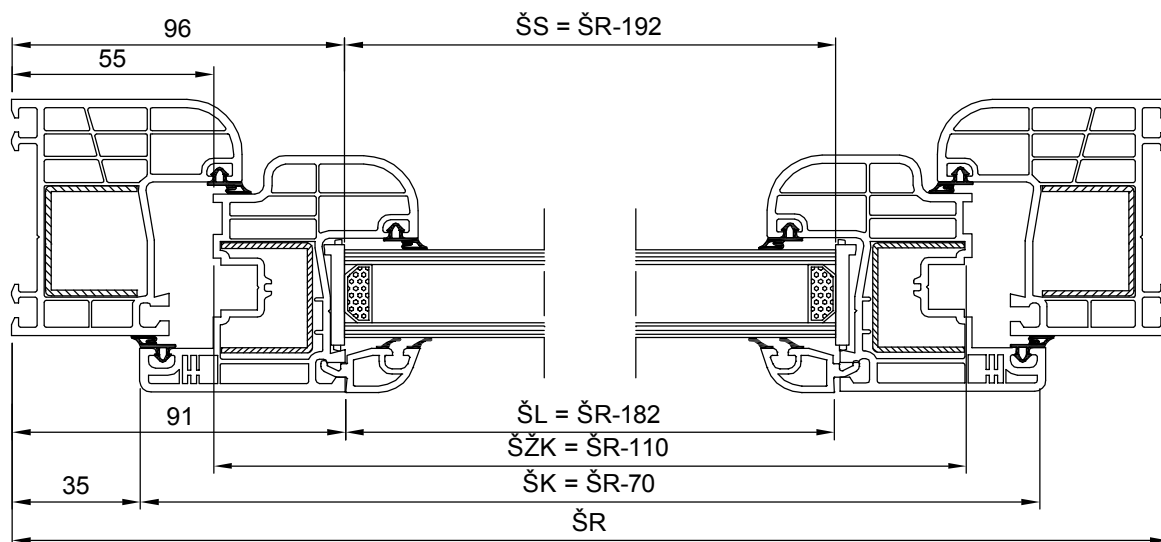
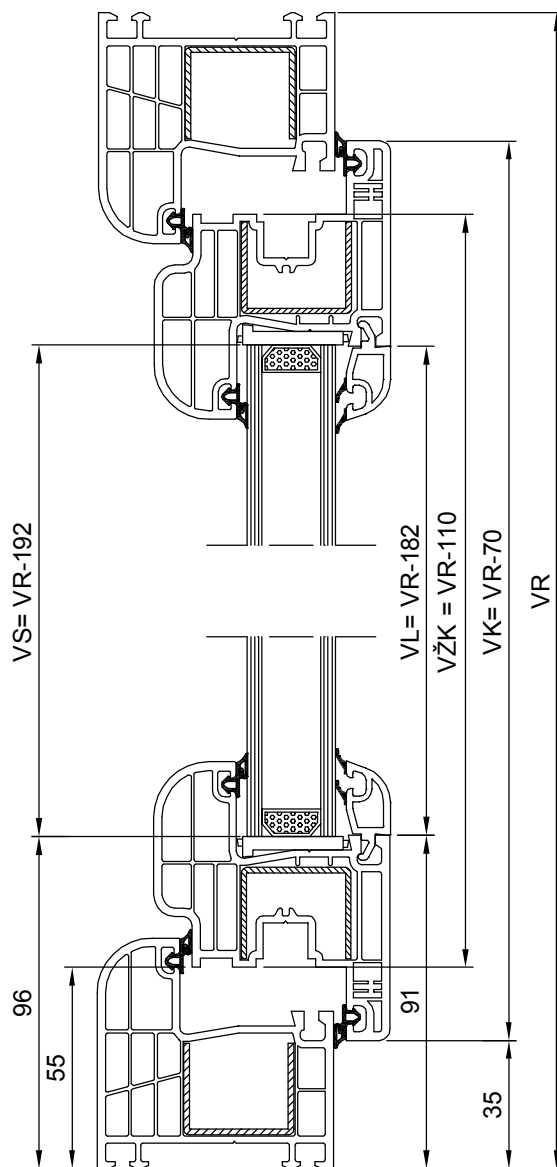
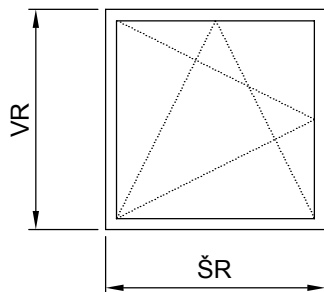
# PRESEK PROZORA PROŠIRENI RAM-KRILO SISTEM 500



# JEDNOKRILNI PROZOR SISTEM 500

## LEGENDA

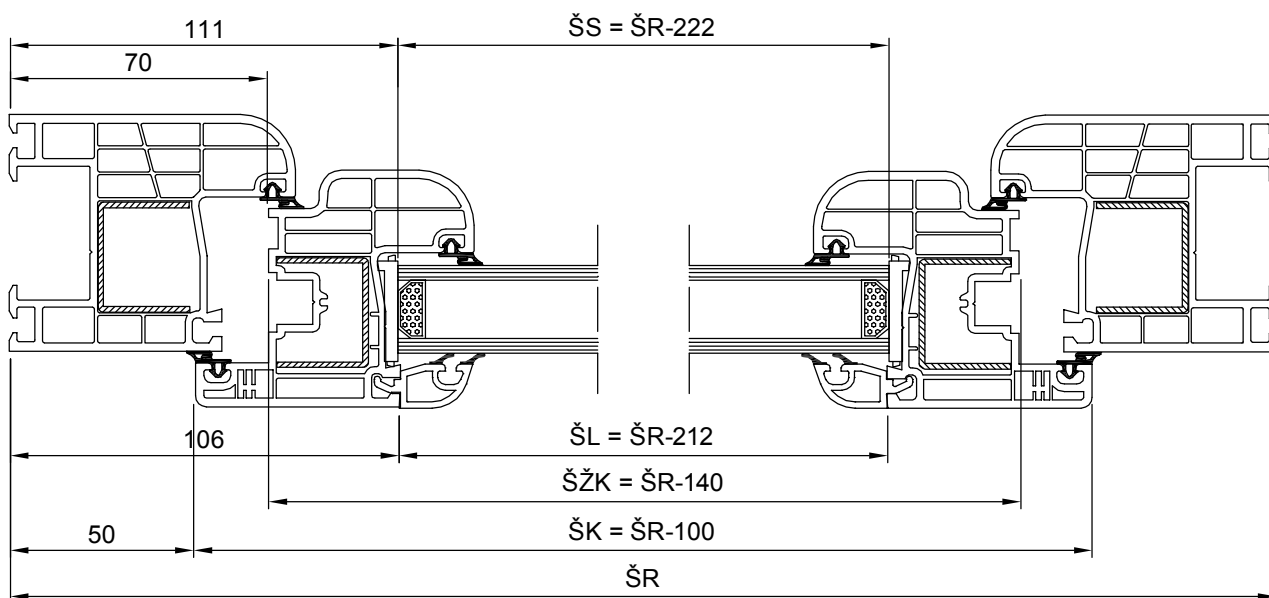
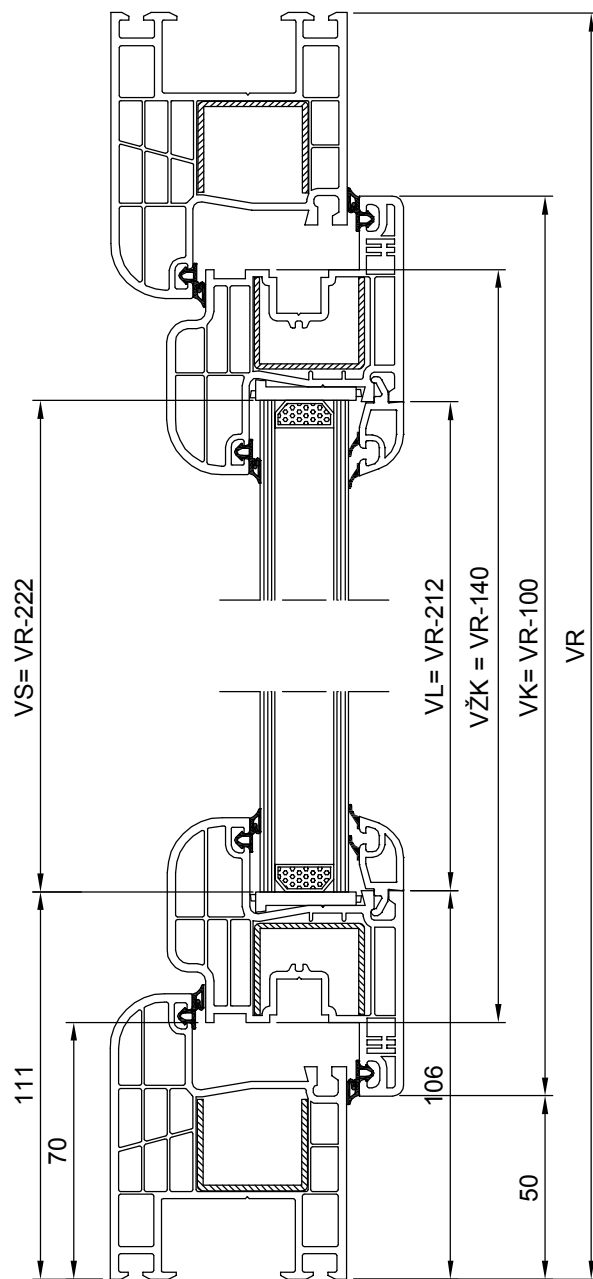
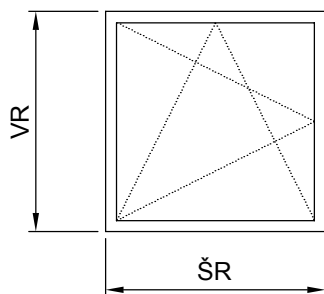
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 VS= VISINA STAKLA



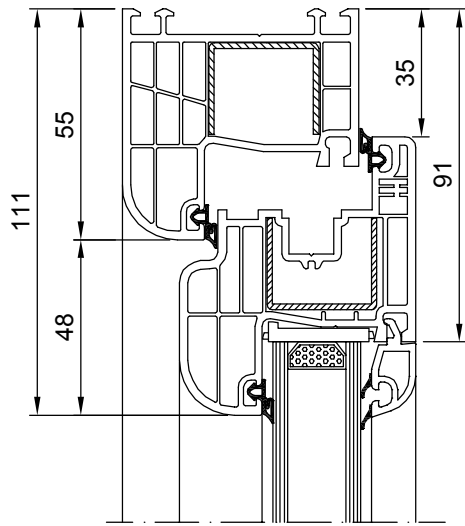
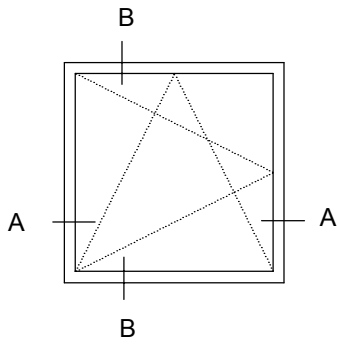
# JEDNOKRILNI PROZOR SA PRO ŠIRENIM ŠTOKOM SISTEM 500

## LEGENDA

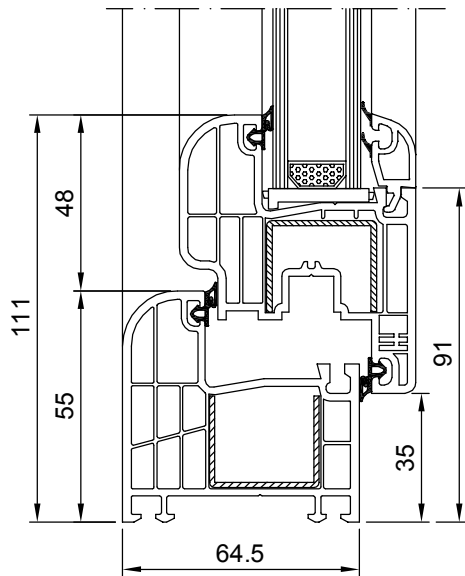
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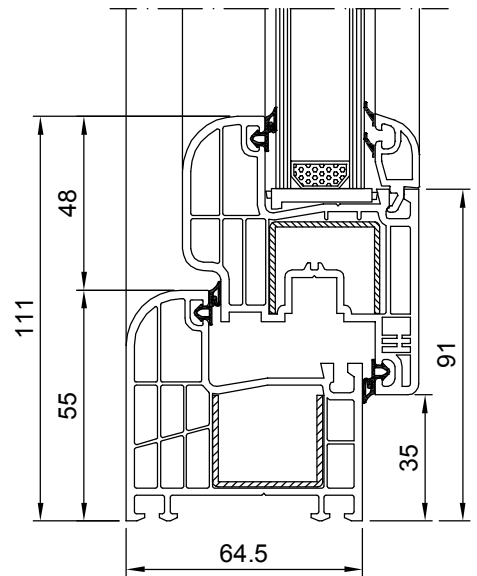
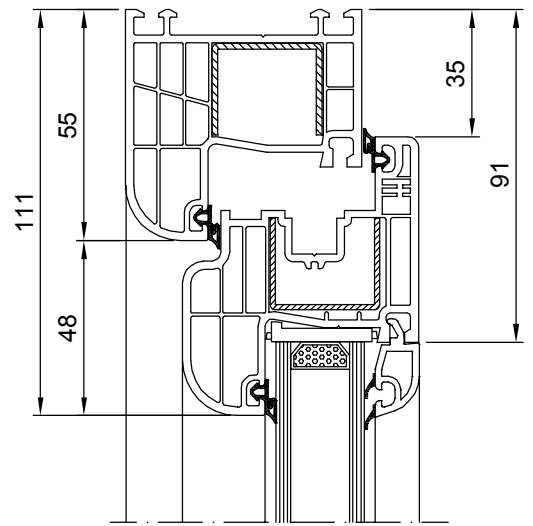
# JEDNOKRILNI PROZOR SISTEM 500



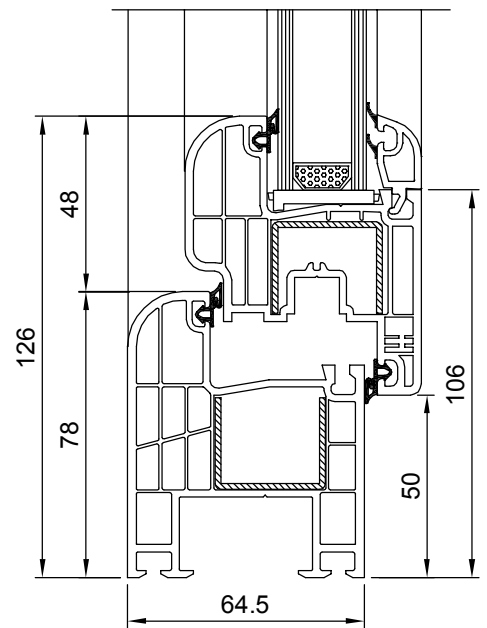
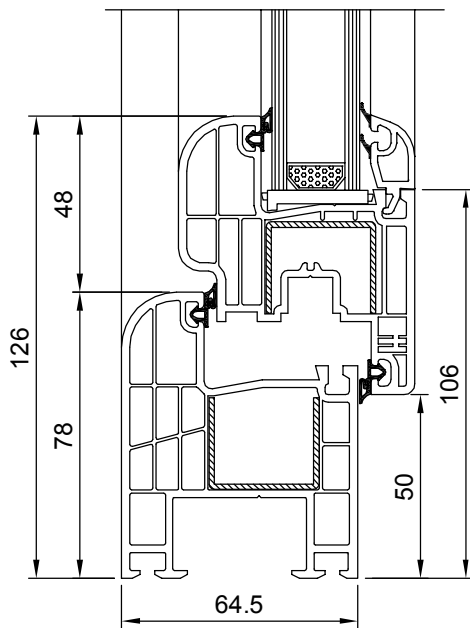
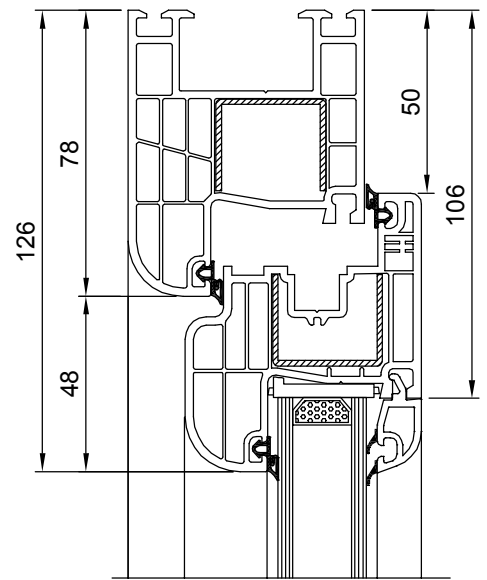
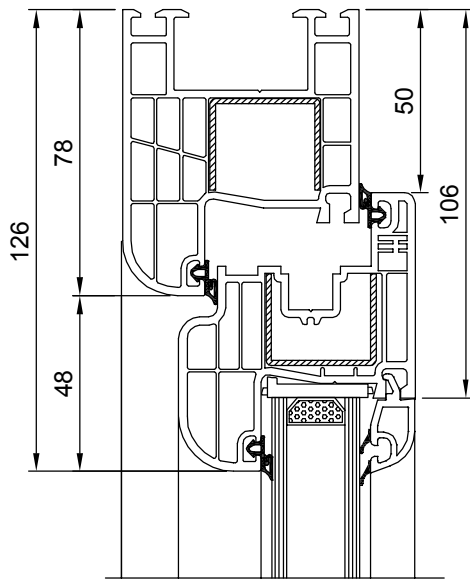
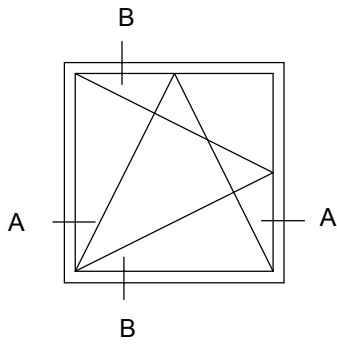
PRESEK "B-B"



PRESEK "A-A"



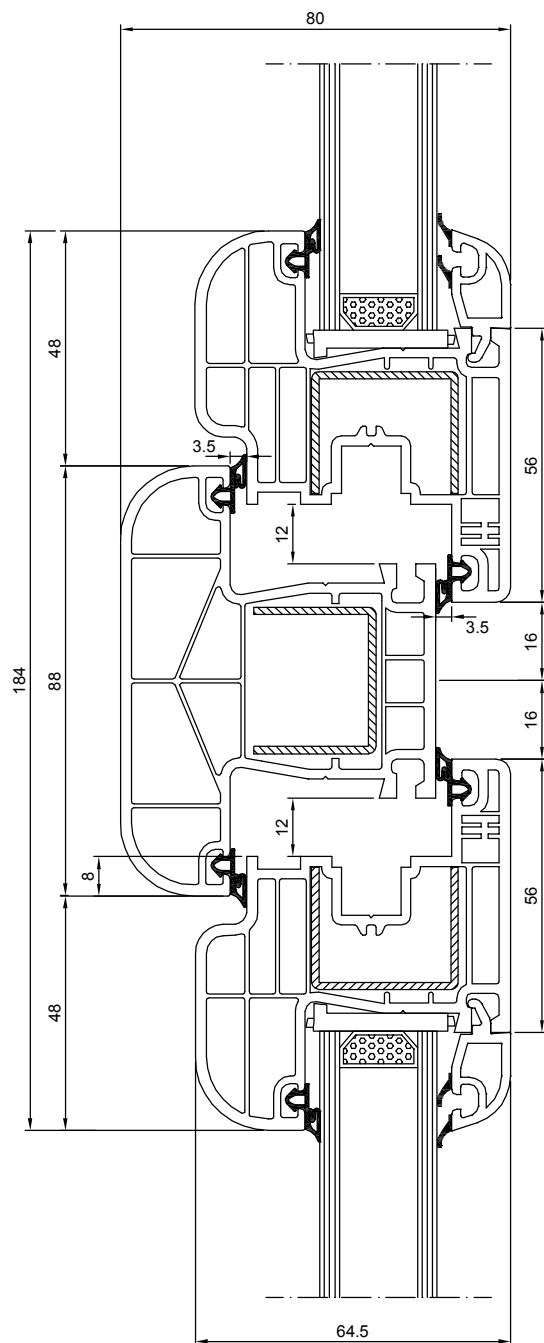
# JEDNOKRILNI PROZOR SA PRO ŠIRENIM ŠTOKOM SISTEM 500



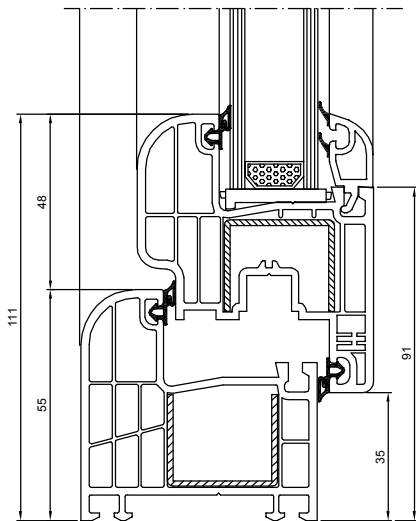
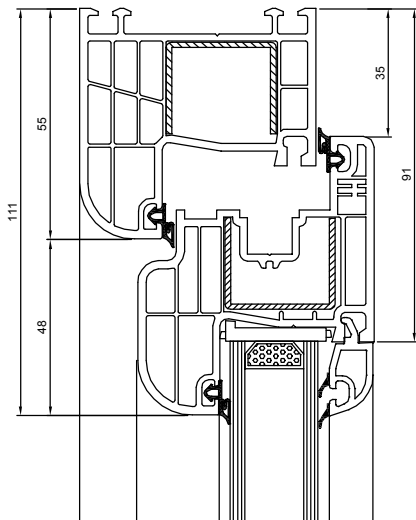
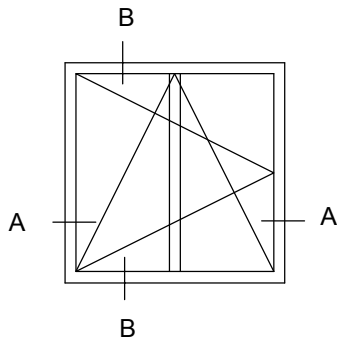
PRESEK "B-B"

PRESEK "A-A"

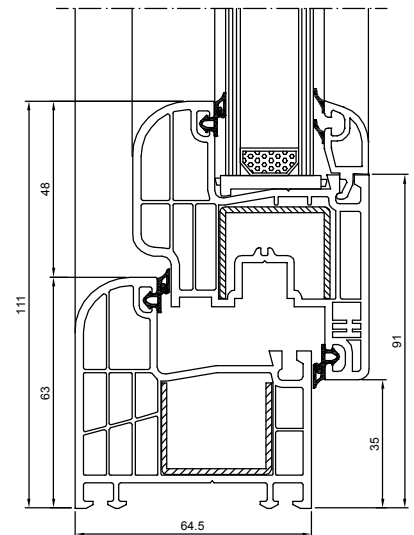
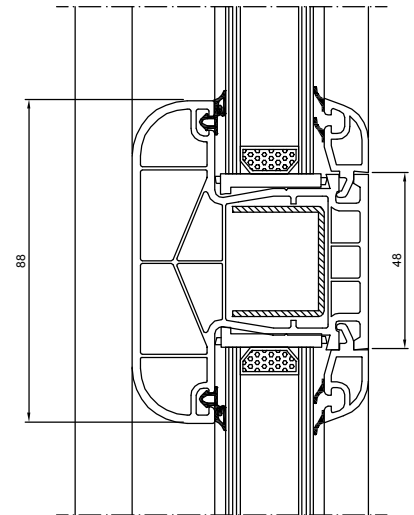
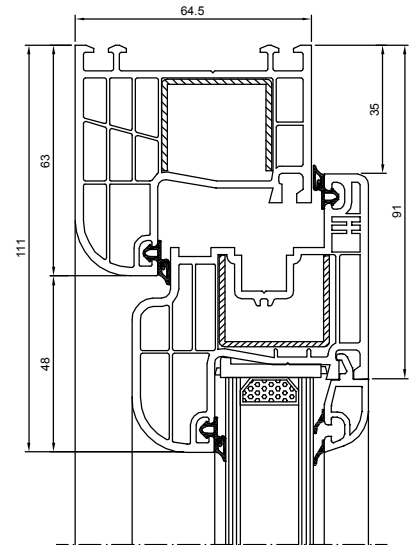
# PRESEK PROZORA KRILO-STUB-KRILO SISTEM 500



# JEDNOKRILNI PROZOR SA STUBOM SISTEM 500

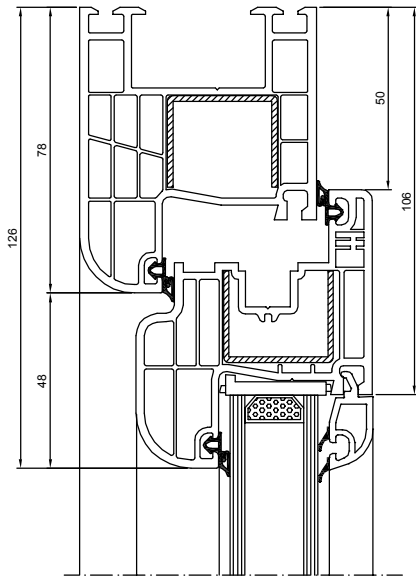
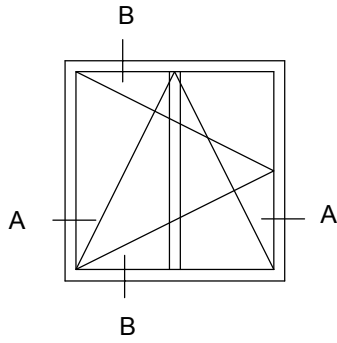


PRESEK "B-B"

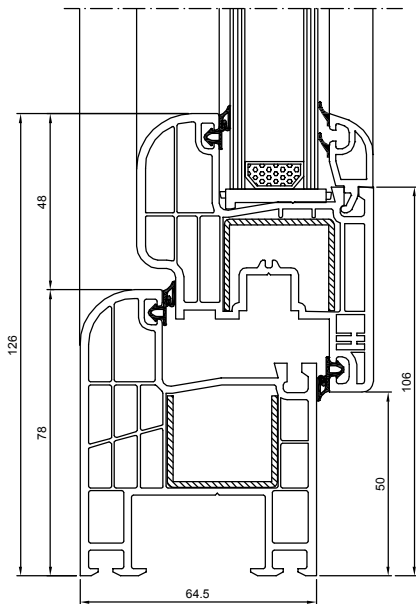


PRESEK "A-A"

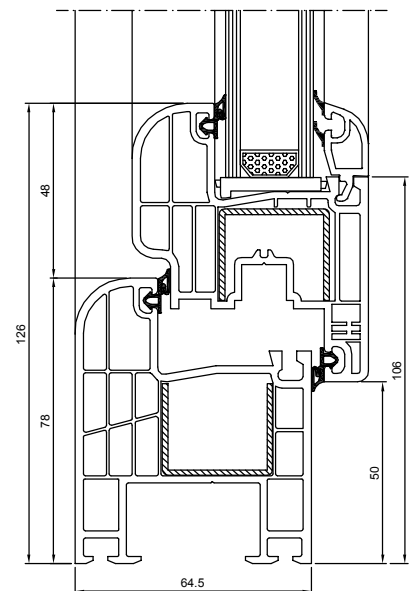
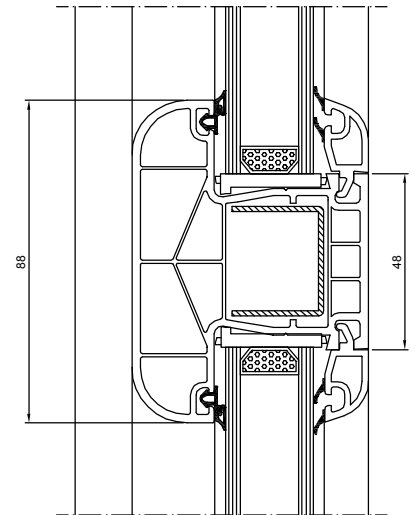
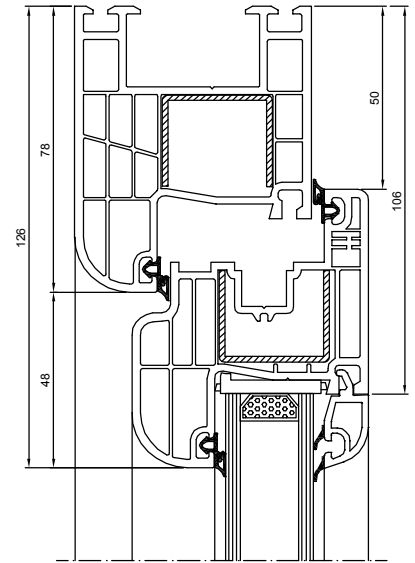
# JEDNOKRILNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 500



PRESEK "B-B"

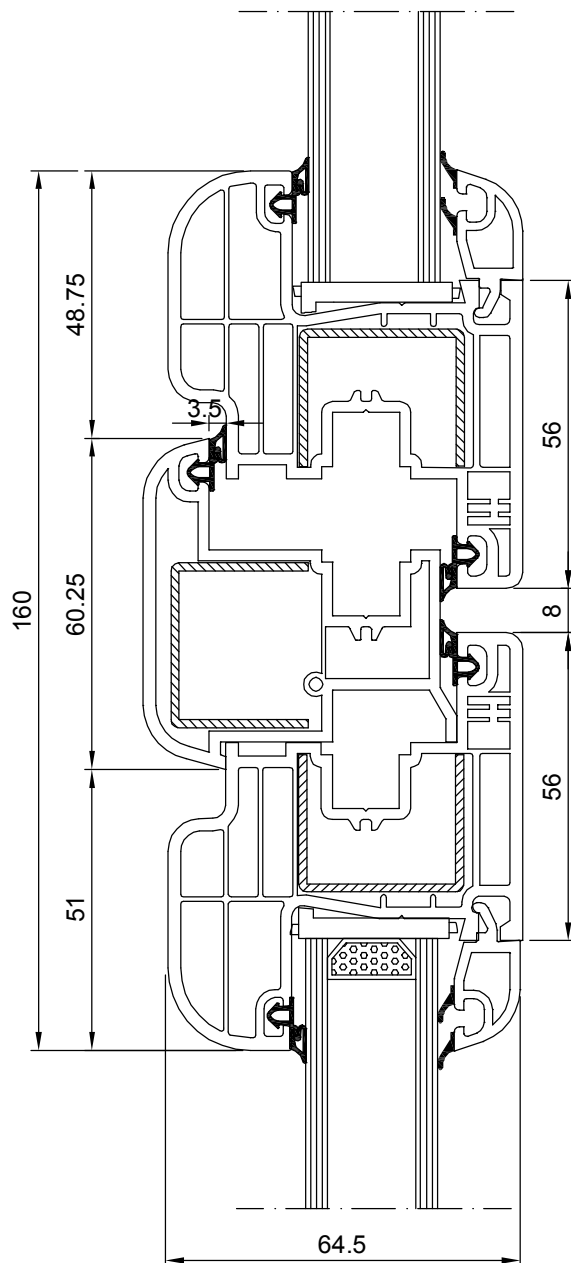


PRESEK "A-A"





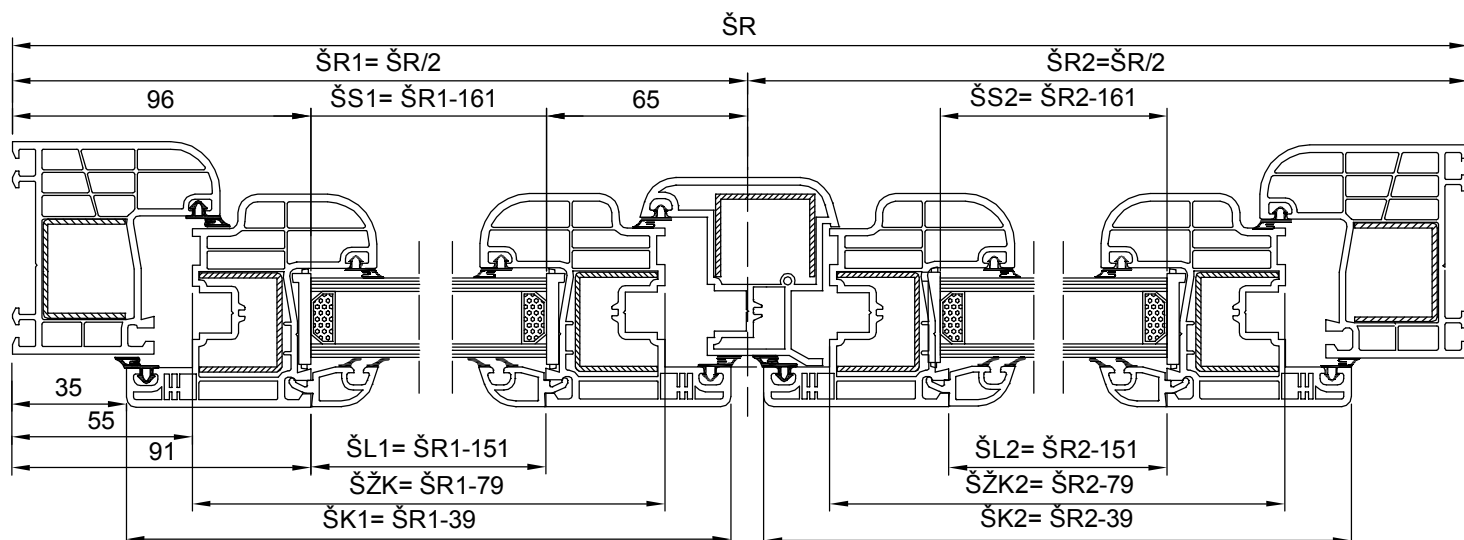
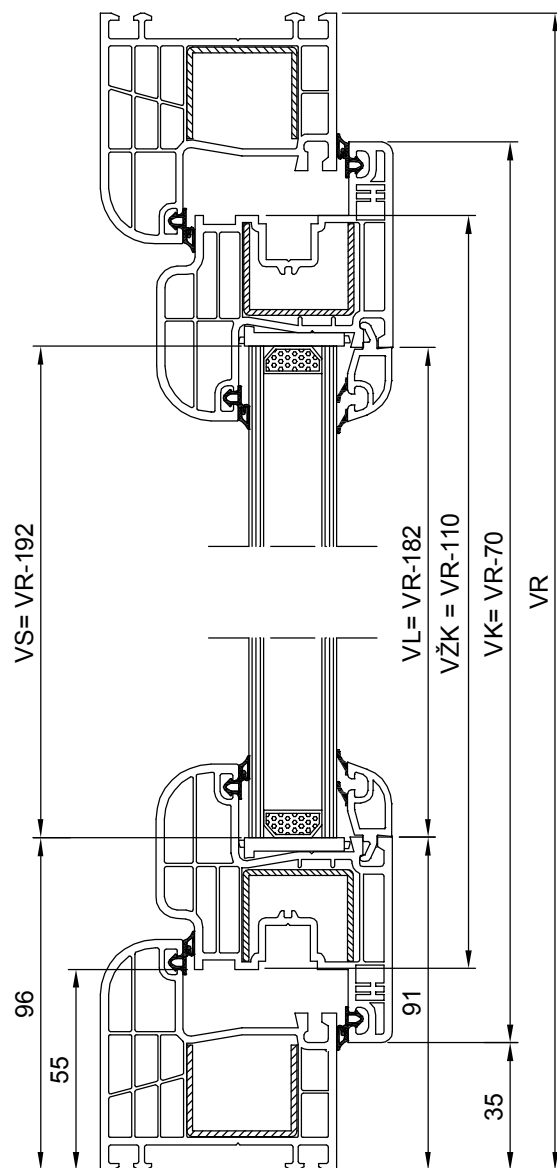
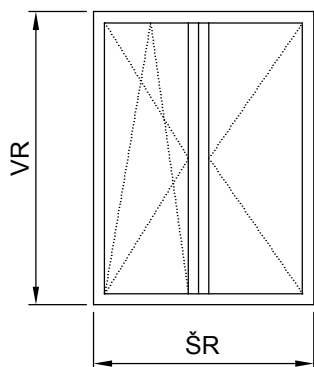
# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 500



# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 500

## LEGENDA

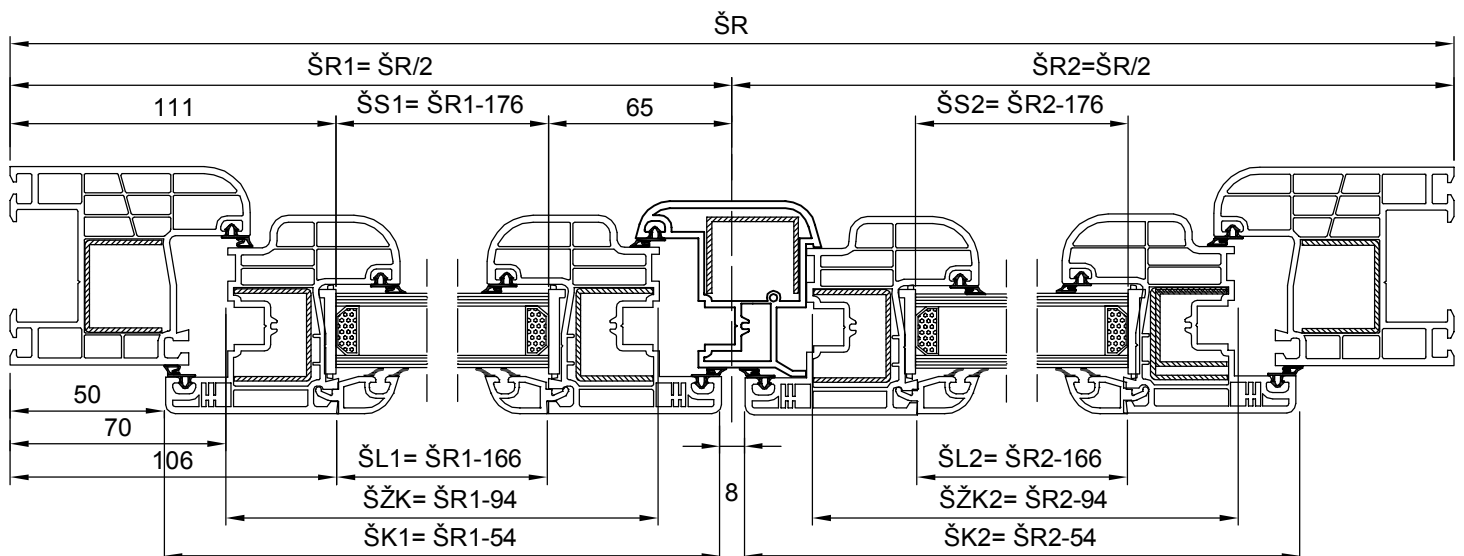
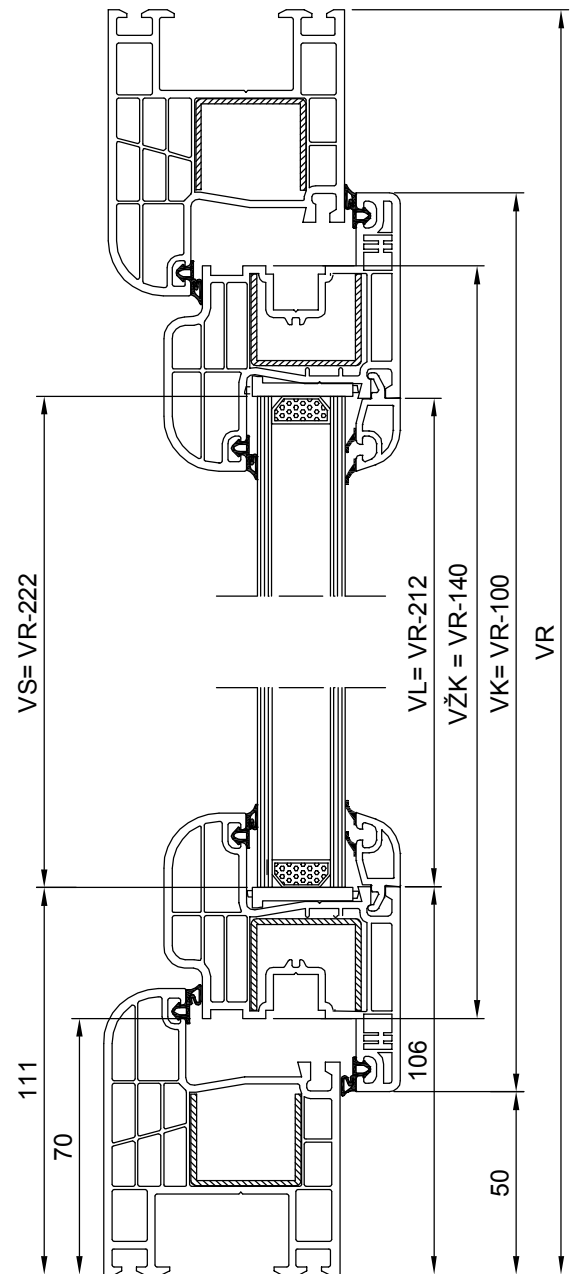
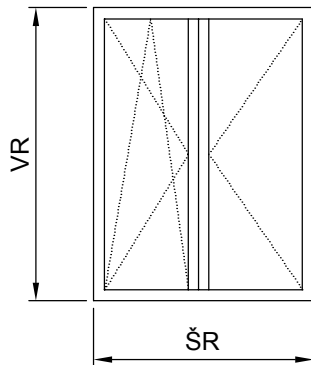
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



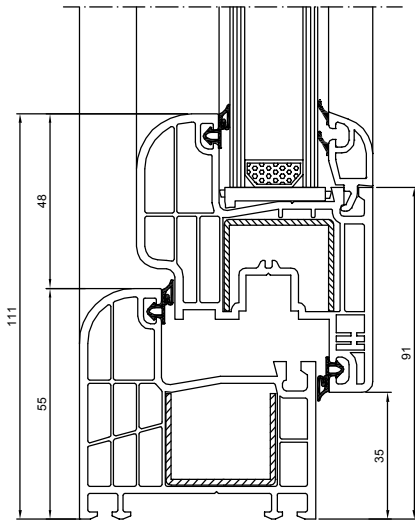
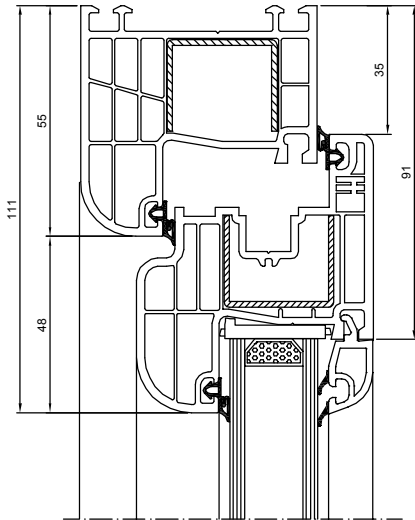
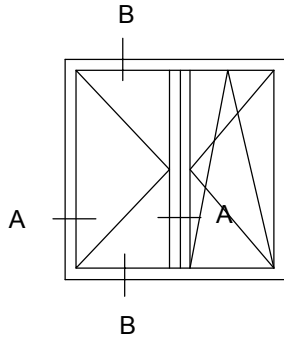
# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENIM RAMOM SISTEM 500

## LEGENDA

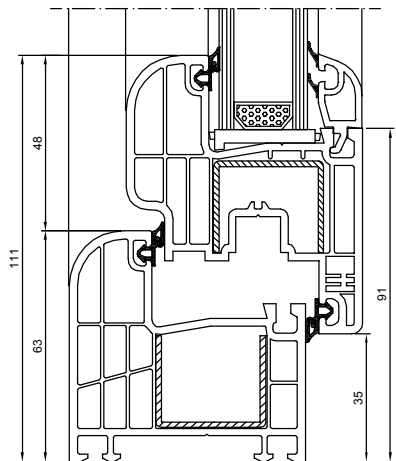
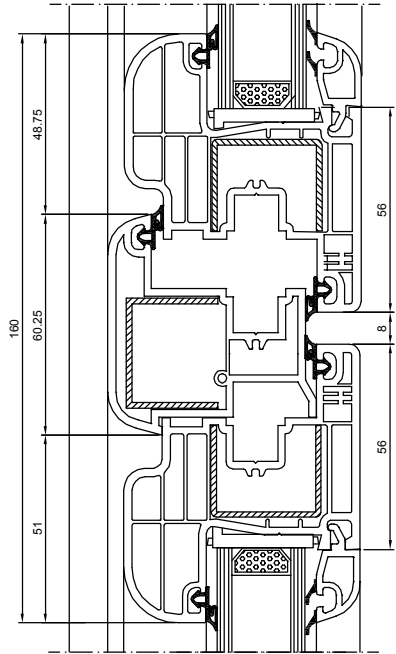
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 500

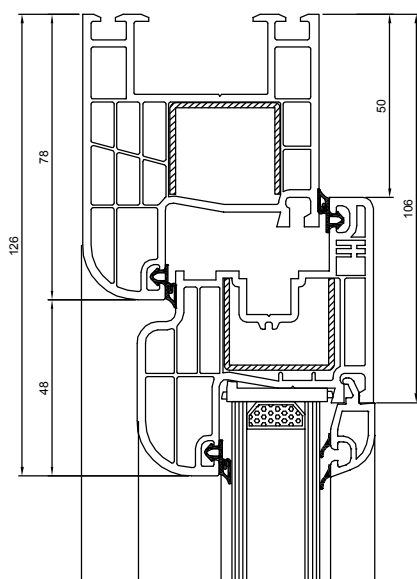
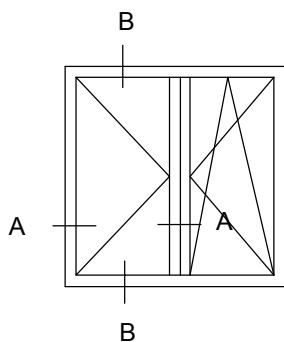


PRESEK "B-B"

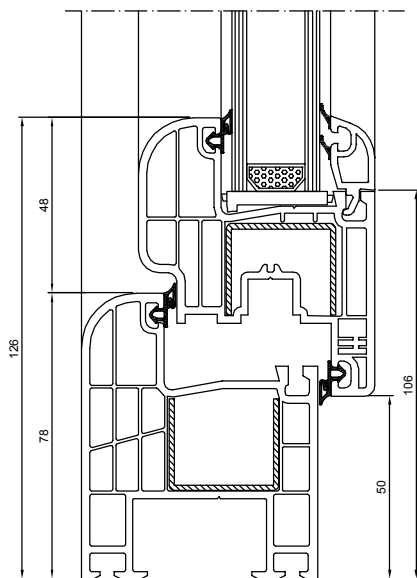


PRESEK "A-A"

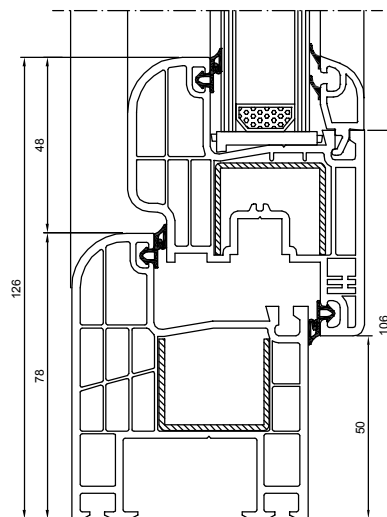
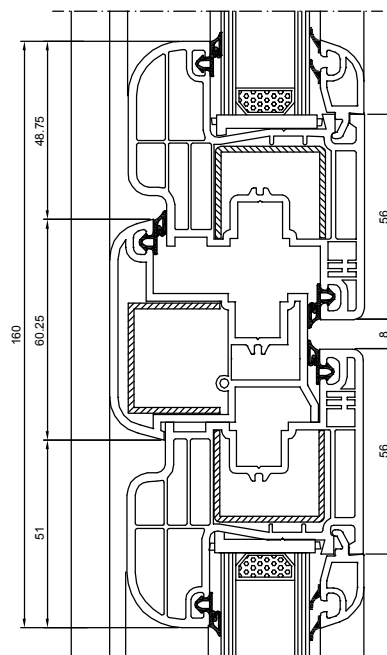
# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENIM RAMOM SISTEM 500



PRESEK "B-B"



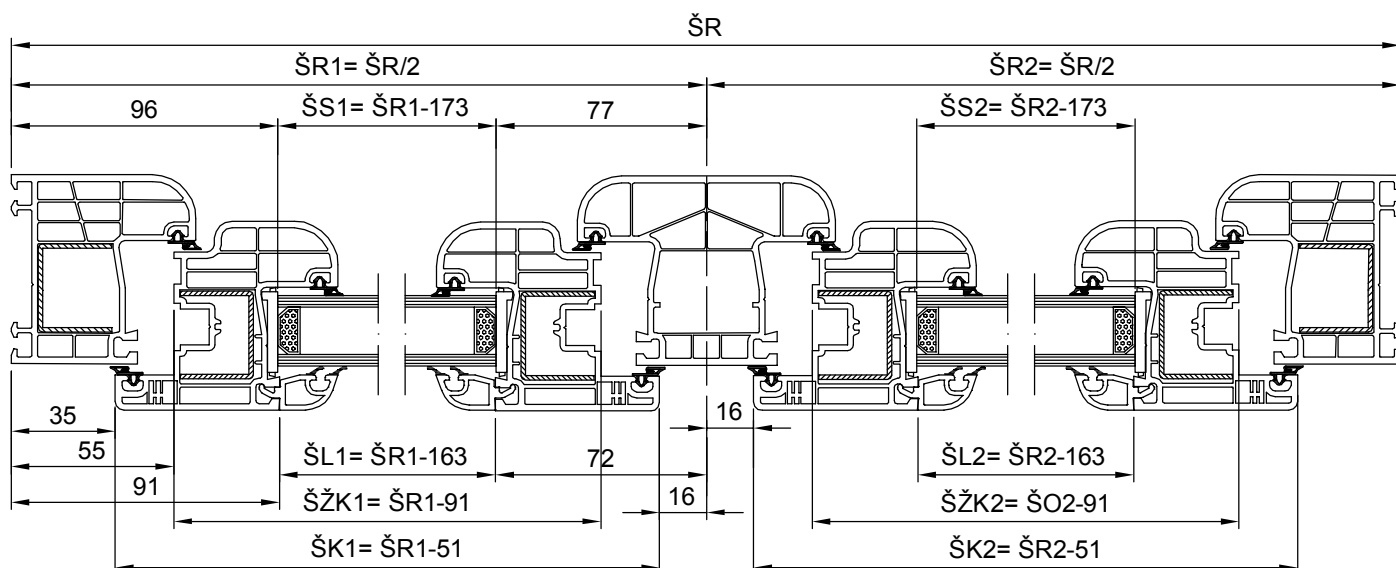
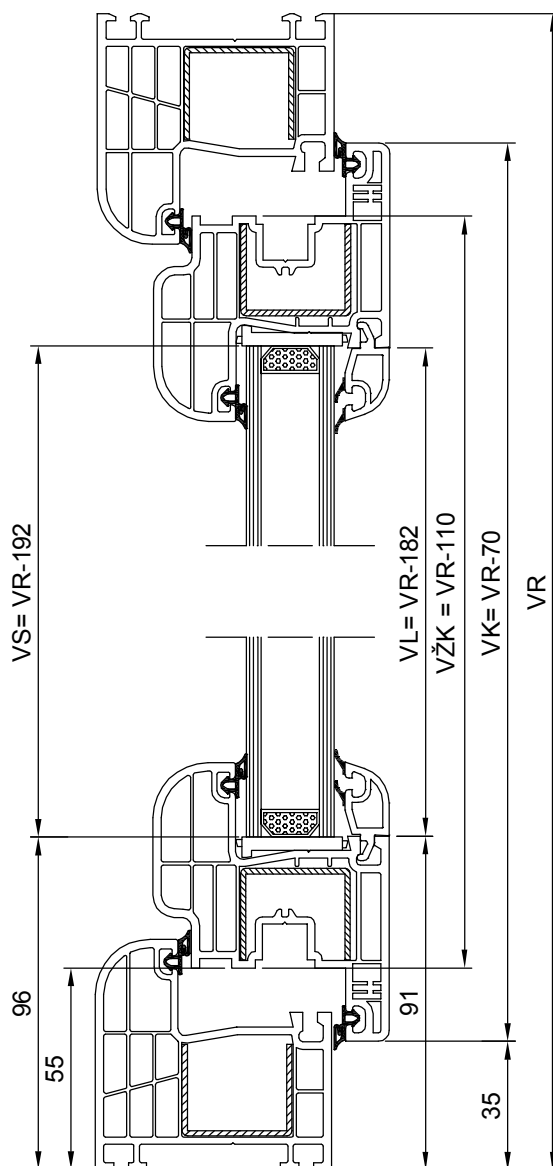
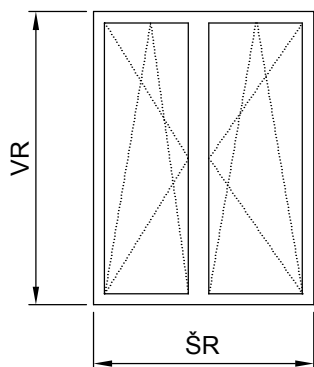
PRESEK "A-A"



# DVOKRILNI PROZOR SA STUBOM SISTEM 500

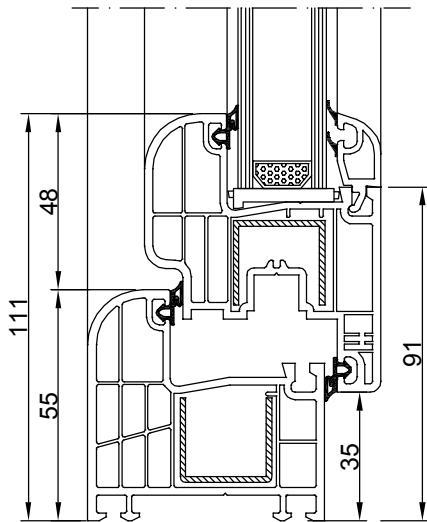
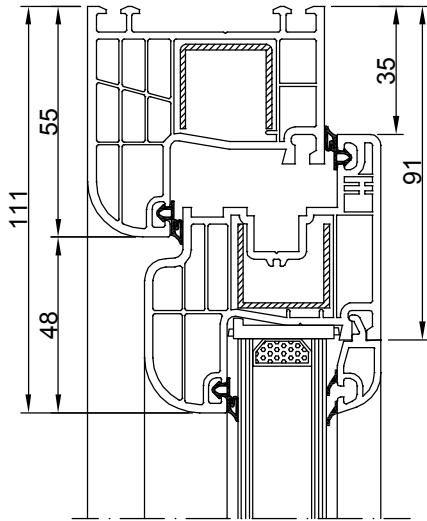
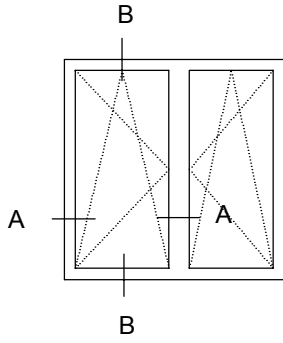
## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA

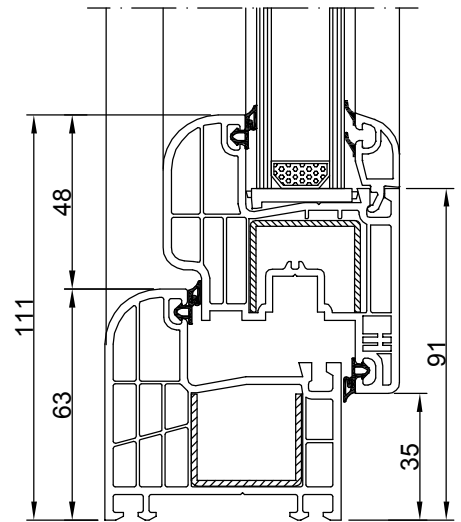
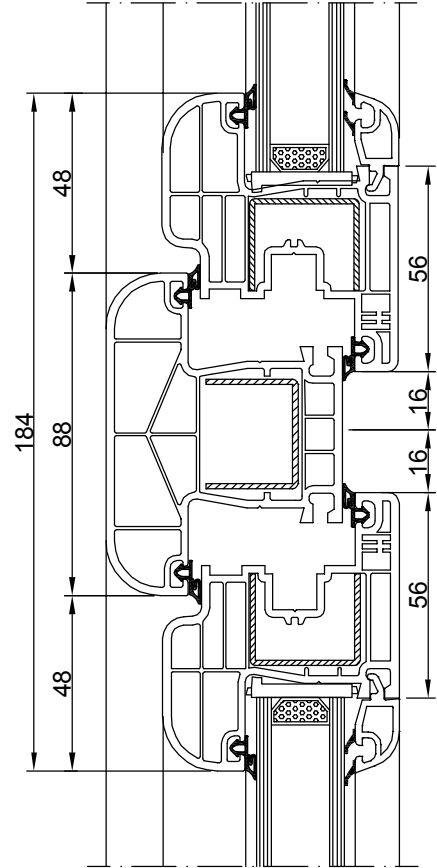




# DVOKRILNI PROZOR SA STUBOM SISTEM 500



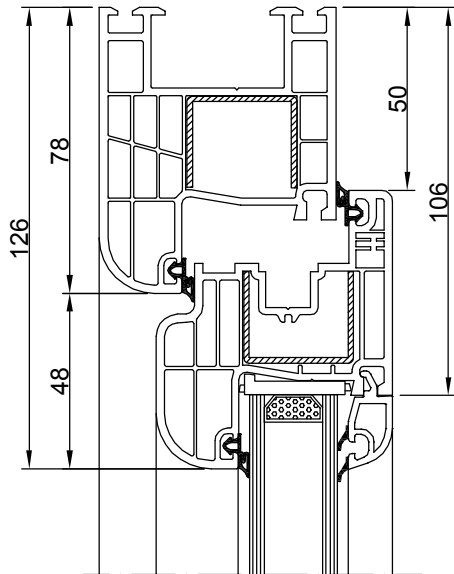
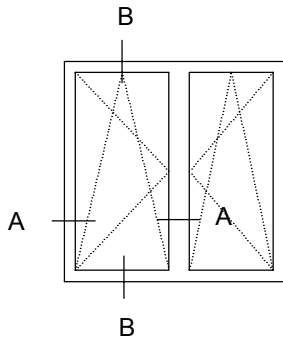
PRESEK "B-B"



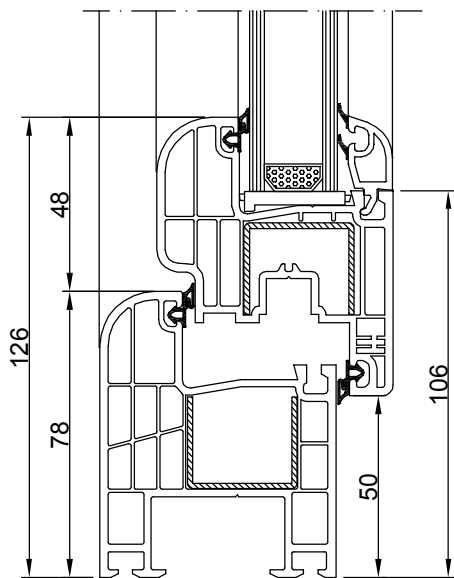
PRESEK "A-A"



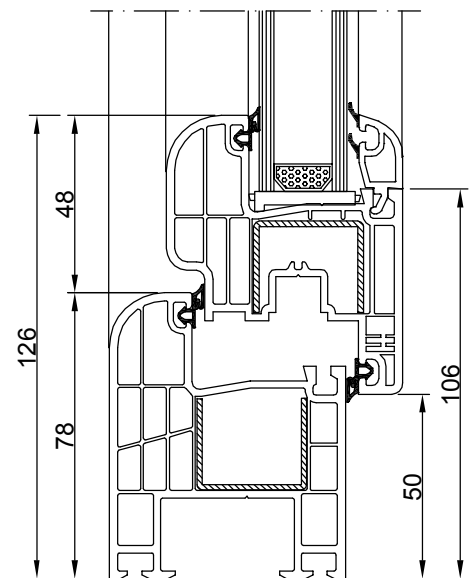
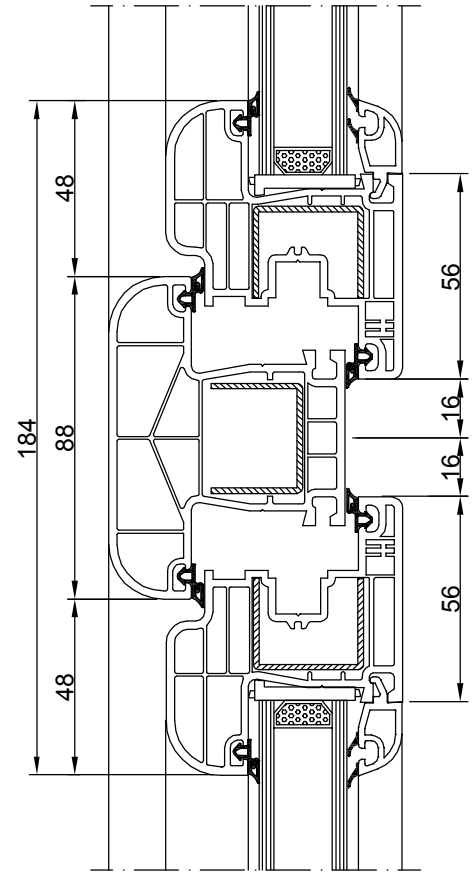
# DVOKRILNI PROZOR SA STUBOM I PROŠIRENIM ŠTOKOM SISTEM 500



PRESEK "B-B"



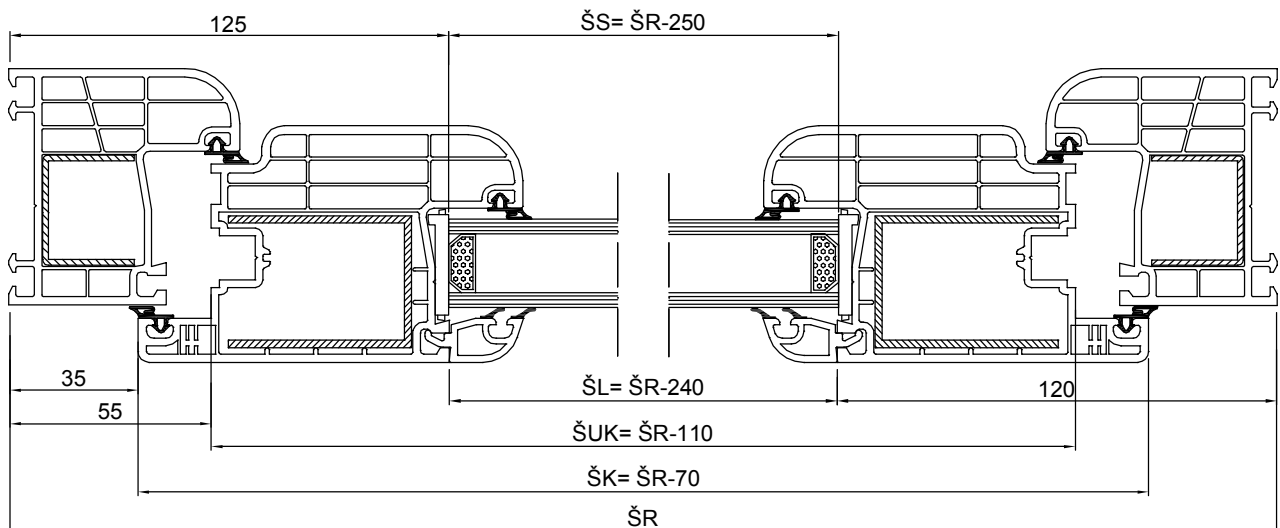
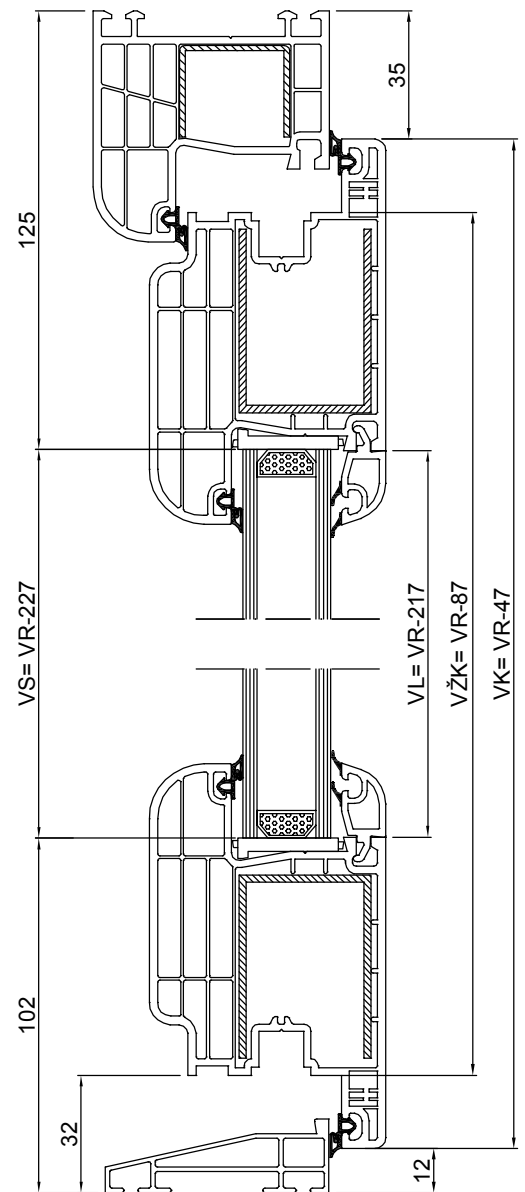
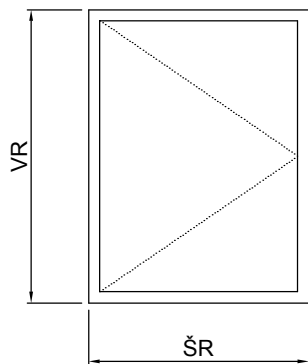
PRESEK "A-A"



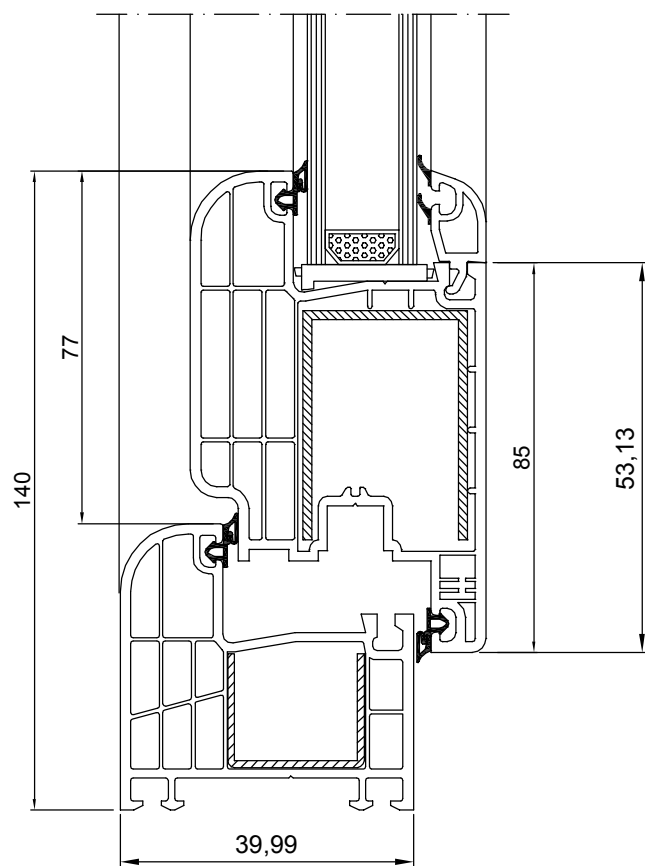
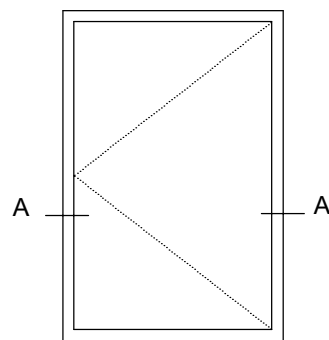
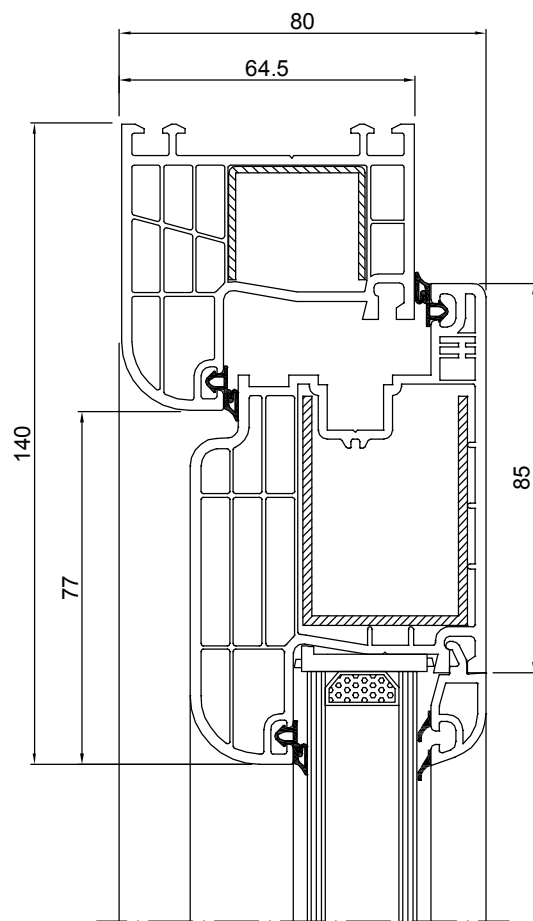
# ULAZNA VRATA SISTEM 500

## LEGENDA

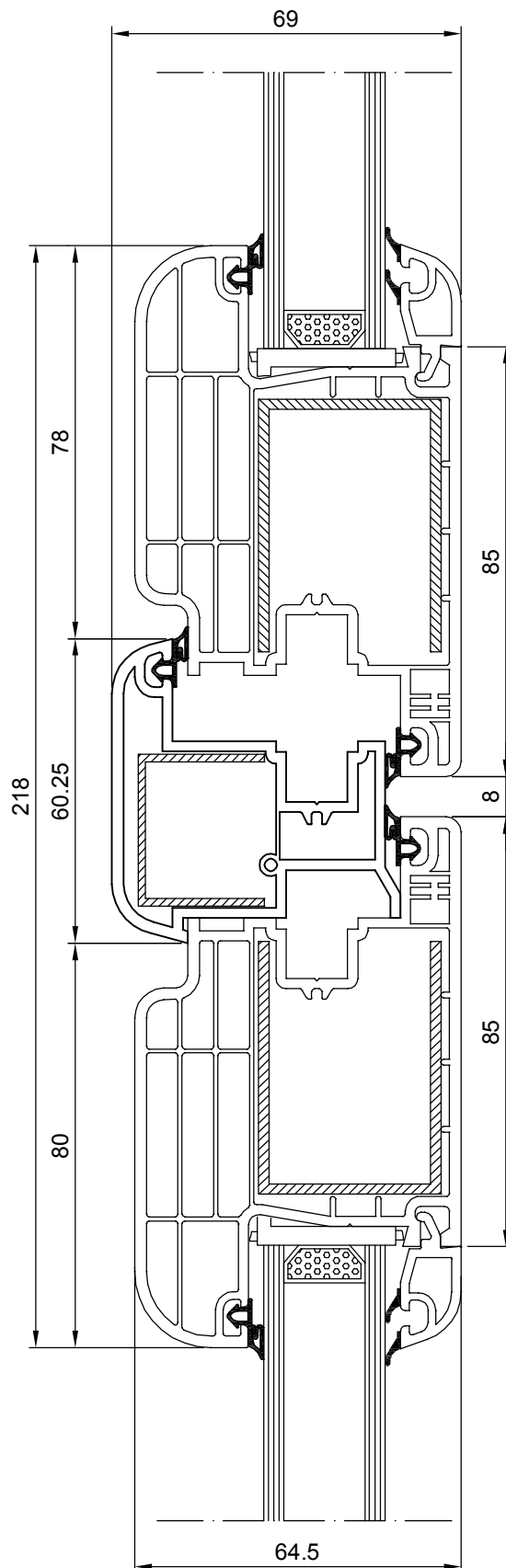
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



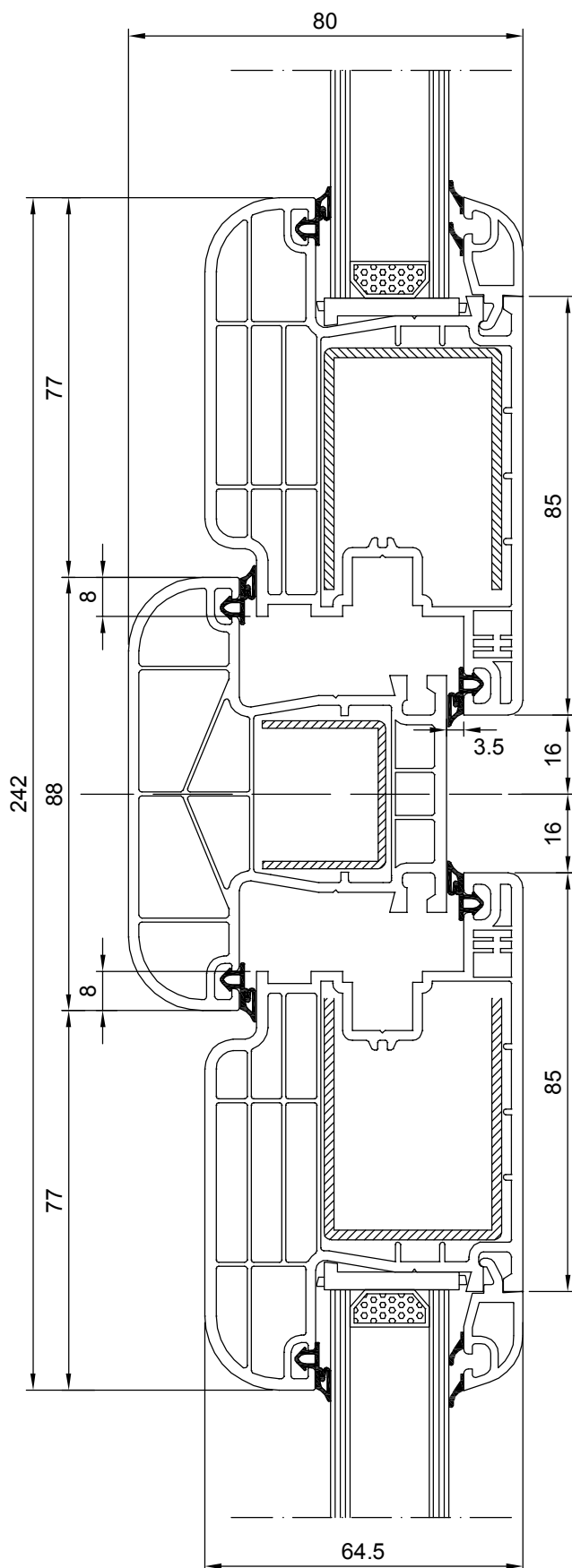
# ULAZNA VRATA SISTEM 500



# PRESEK VRATA KRILO-PREKLOP-KRILO SISTEM 500



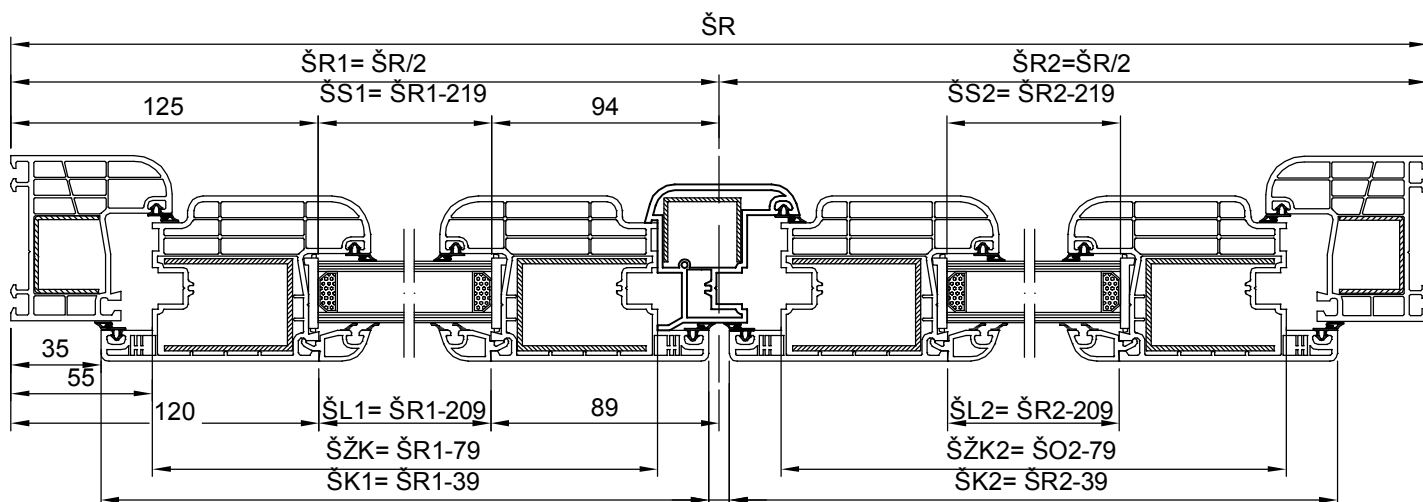
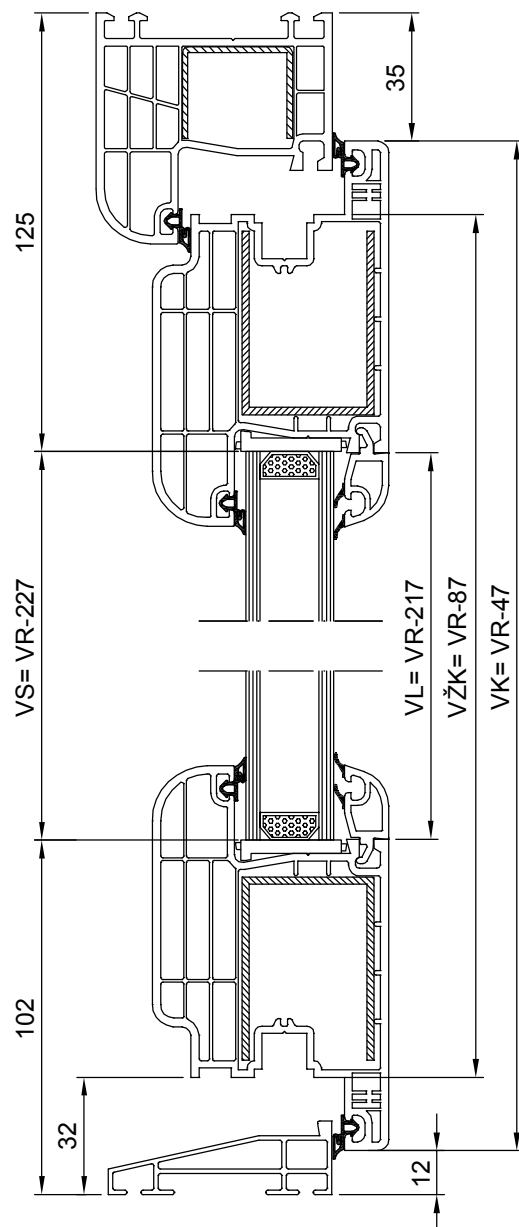
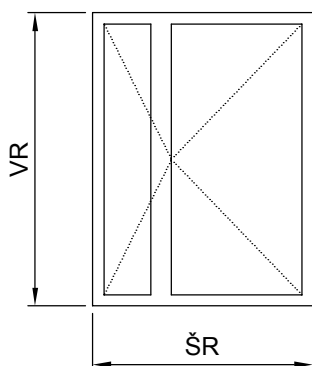
# PRESEK VRATA KRILO-STUB-KRILO SISTEM 500



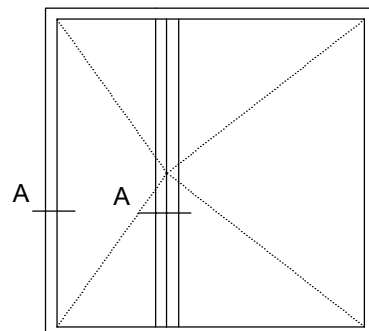
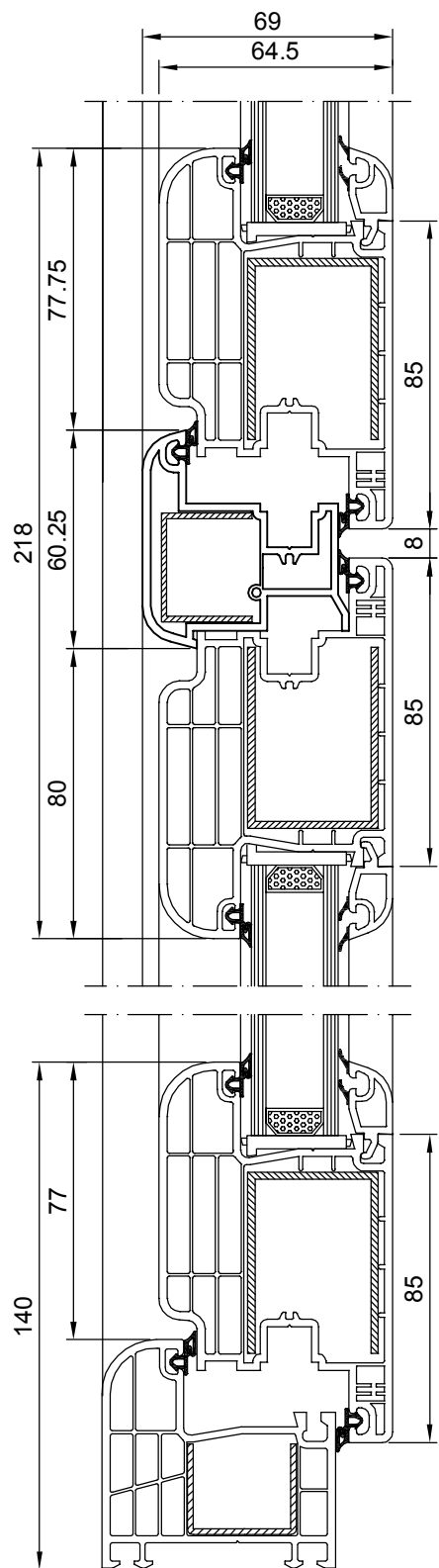
# DVOKRILNA ULAZNA VRATA SISTEM 500

## LEGENDA

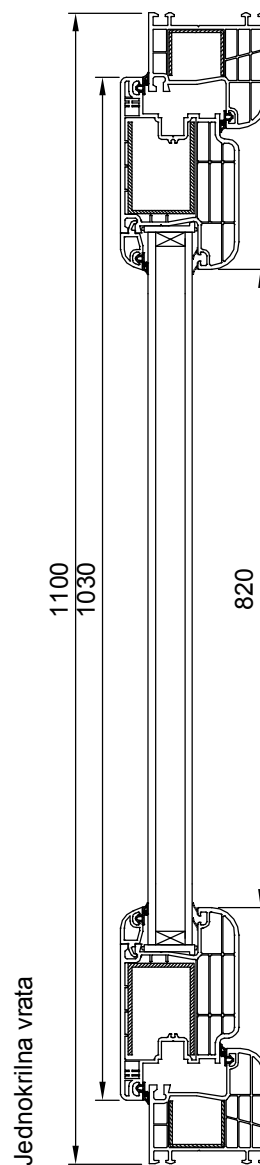
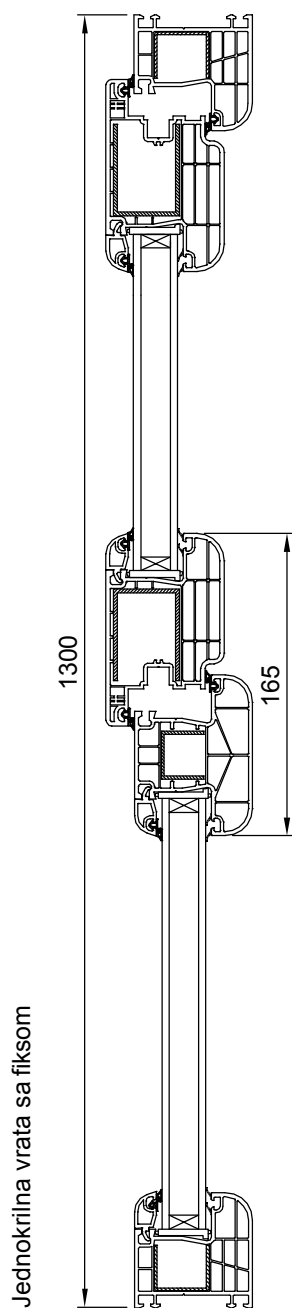
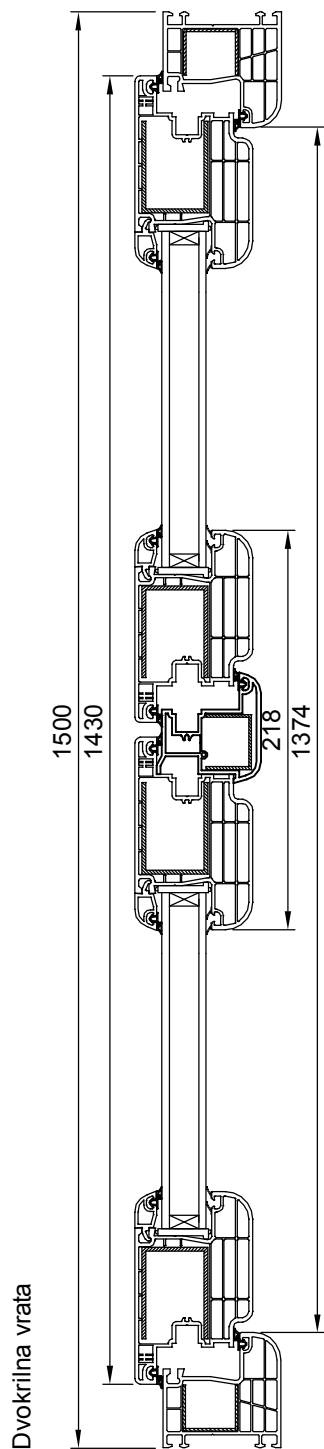
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 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# DVOKRILNA ULAZNA VRATA SISTEM 500

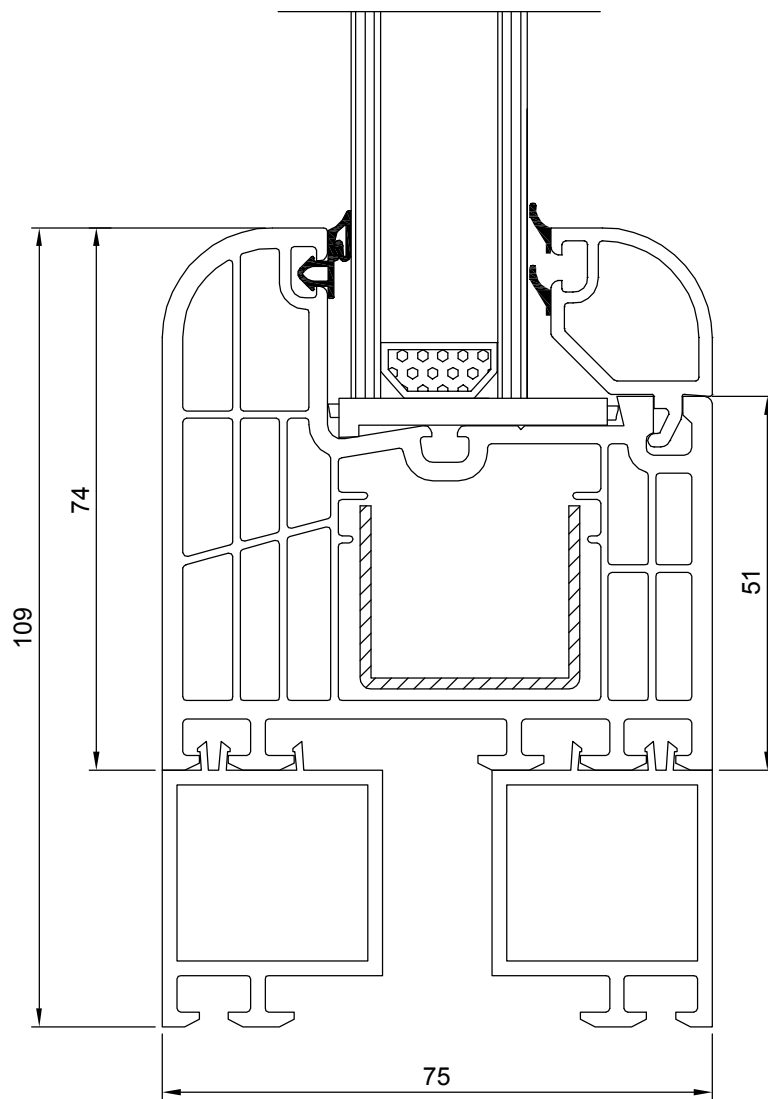


# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA SISTEM 500

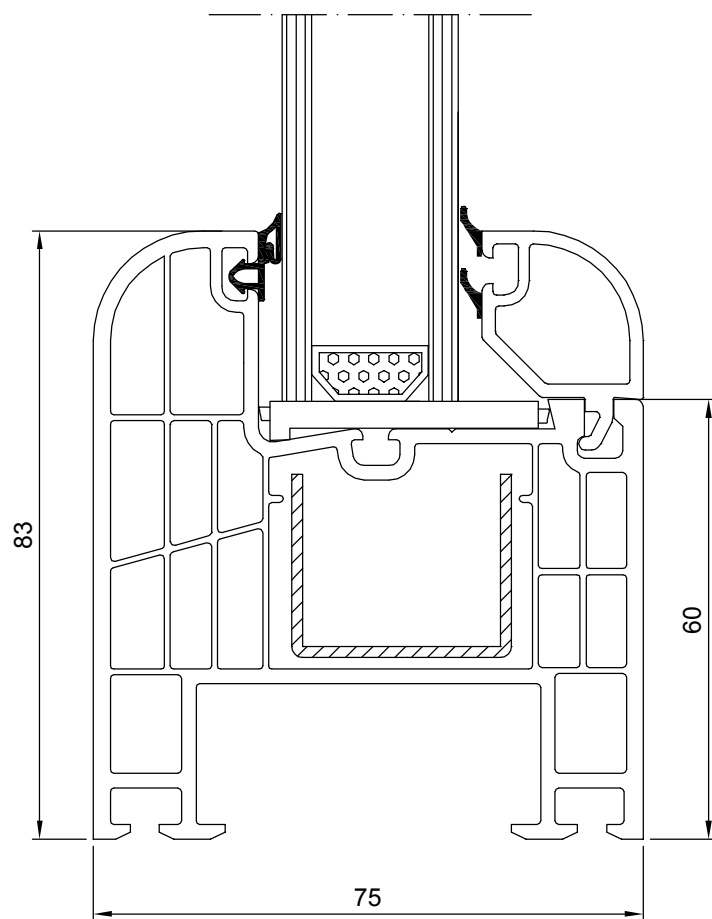




PRESEK PROZORA  
NASTAVAK RAMA - RAM  
SISTEM 600



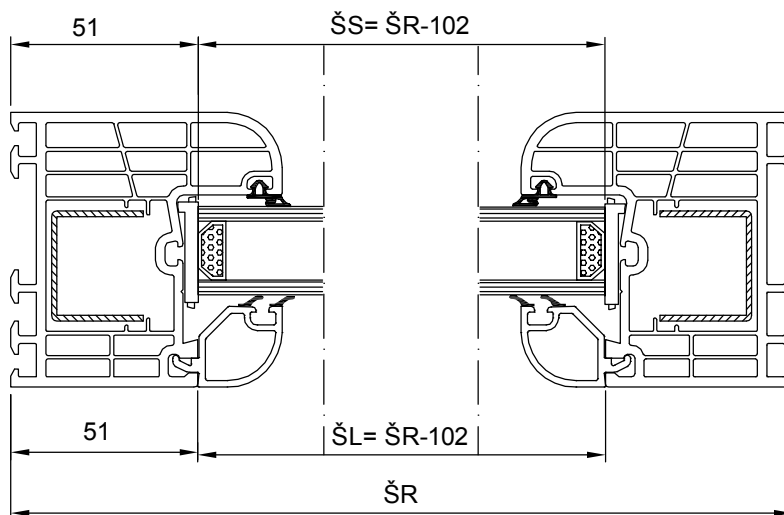
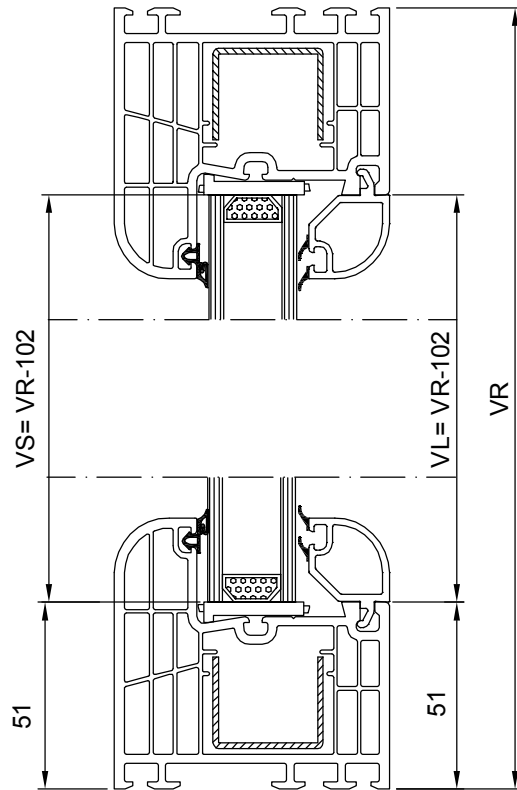
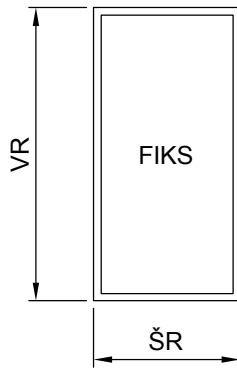
# PRESEK PROZORA PRO ŠIRENI RAM SISTEM 600



# FIKSNI PROZOR SISTEM 600

## LEGENDA

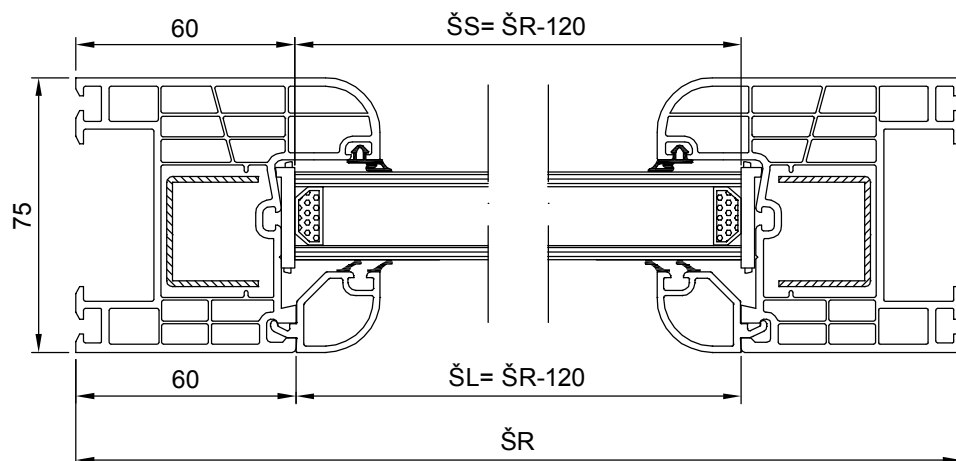
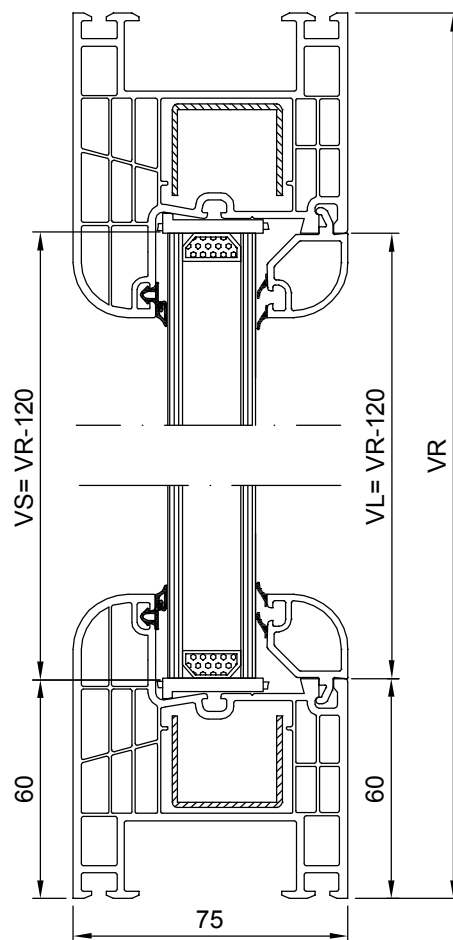
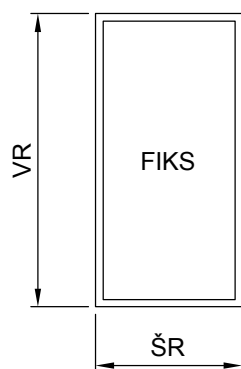
ŠR= ŠIRINA RAMA  
VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



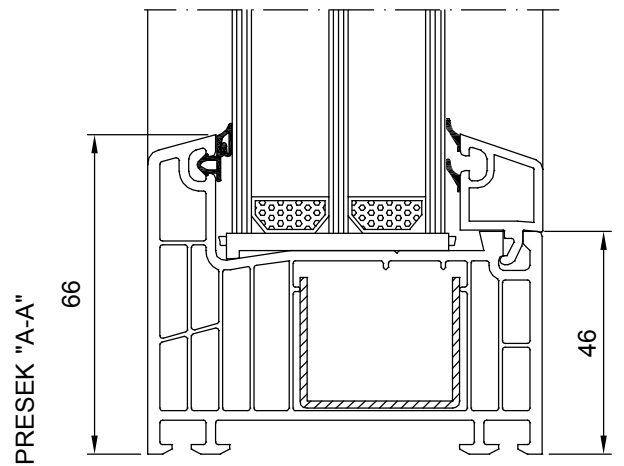
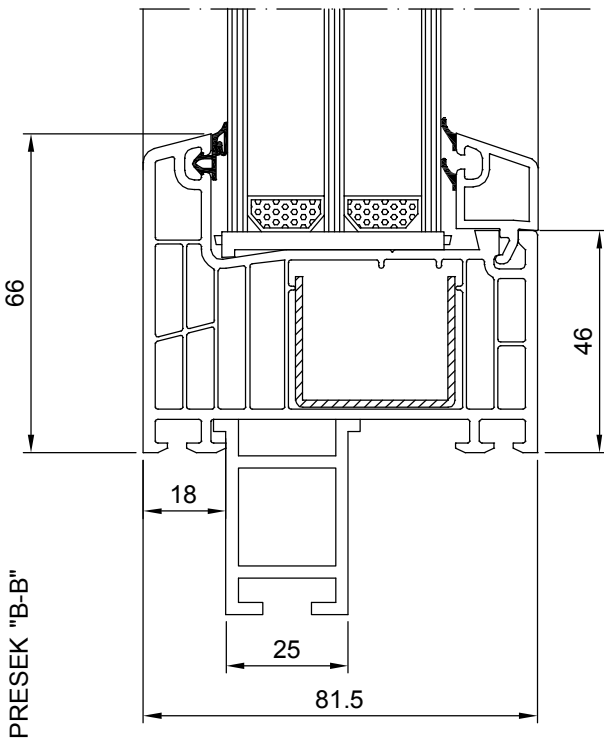
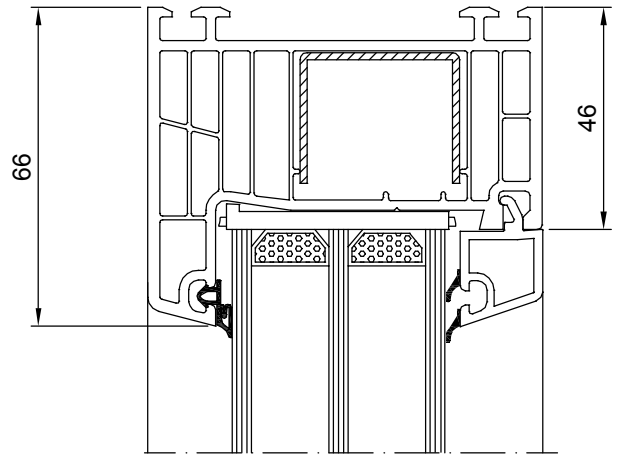
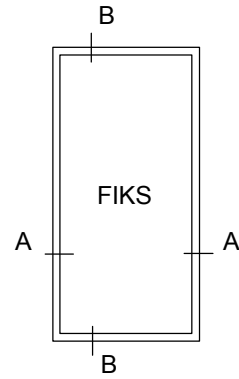
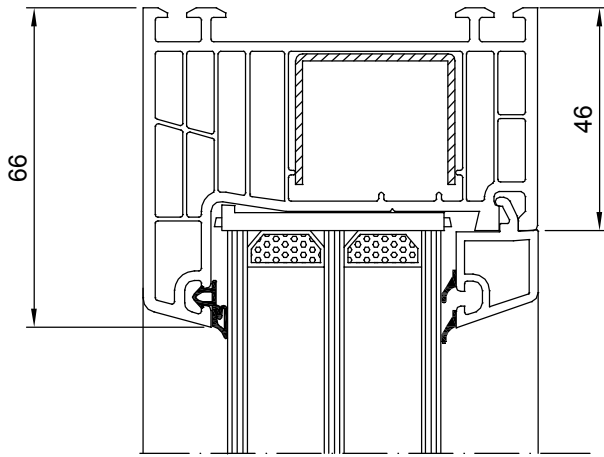
# FIKSNI PROZOR SA PROŠIRENIM RAMOM SISTEM 600

## LEGENDA

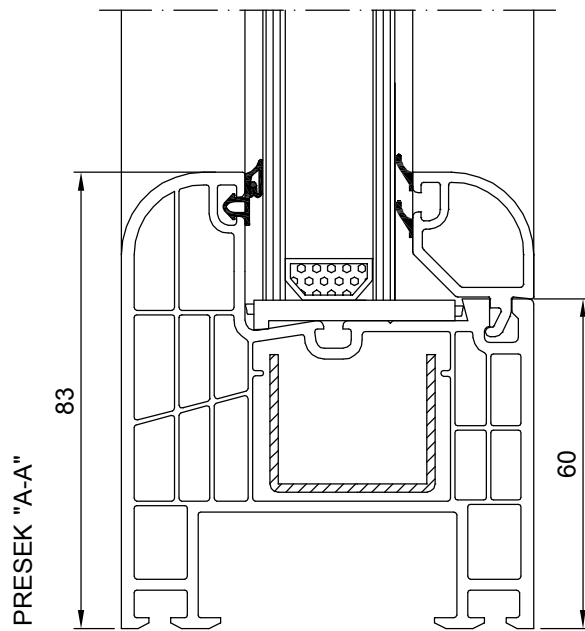
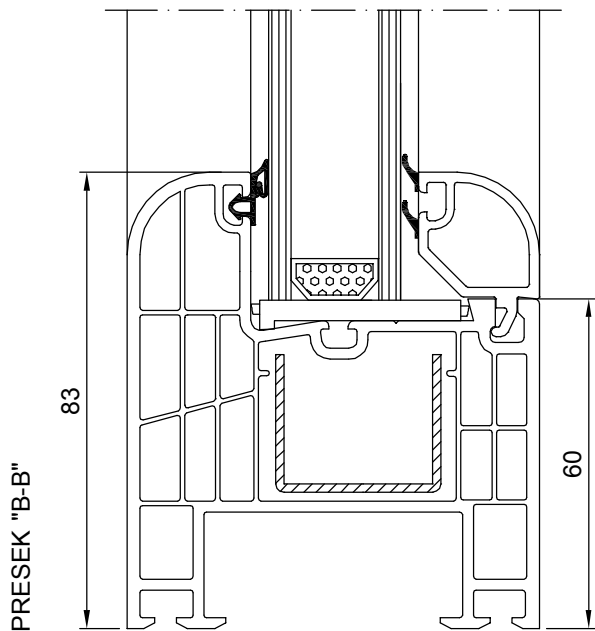
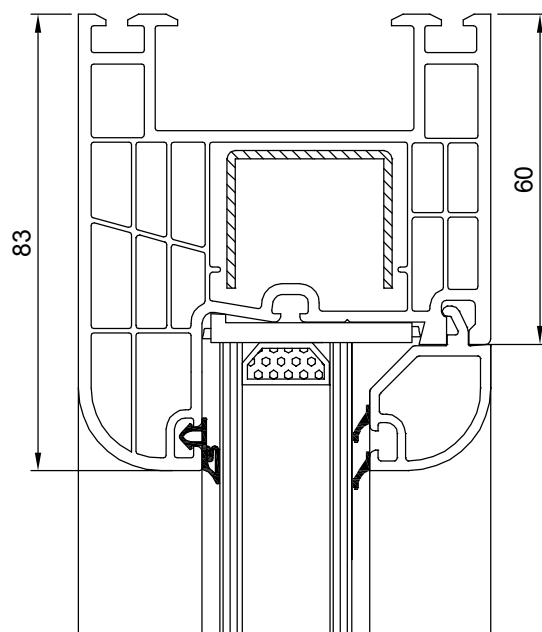
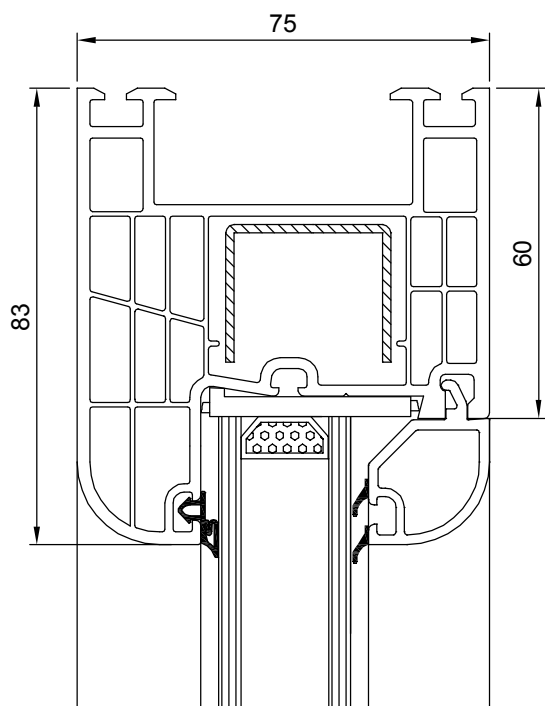
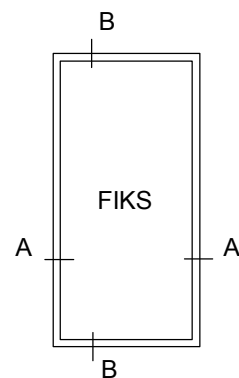
ŠR= ŠIRINA RAMA  
VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



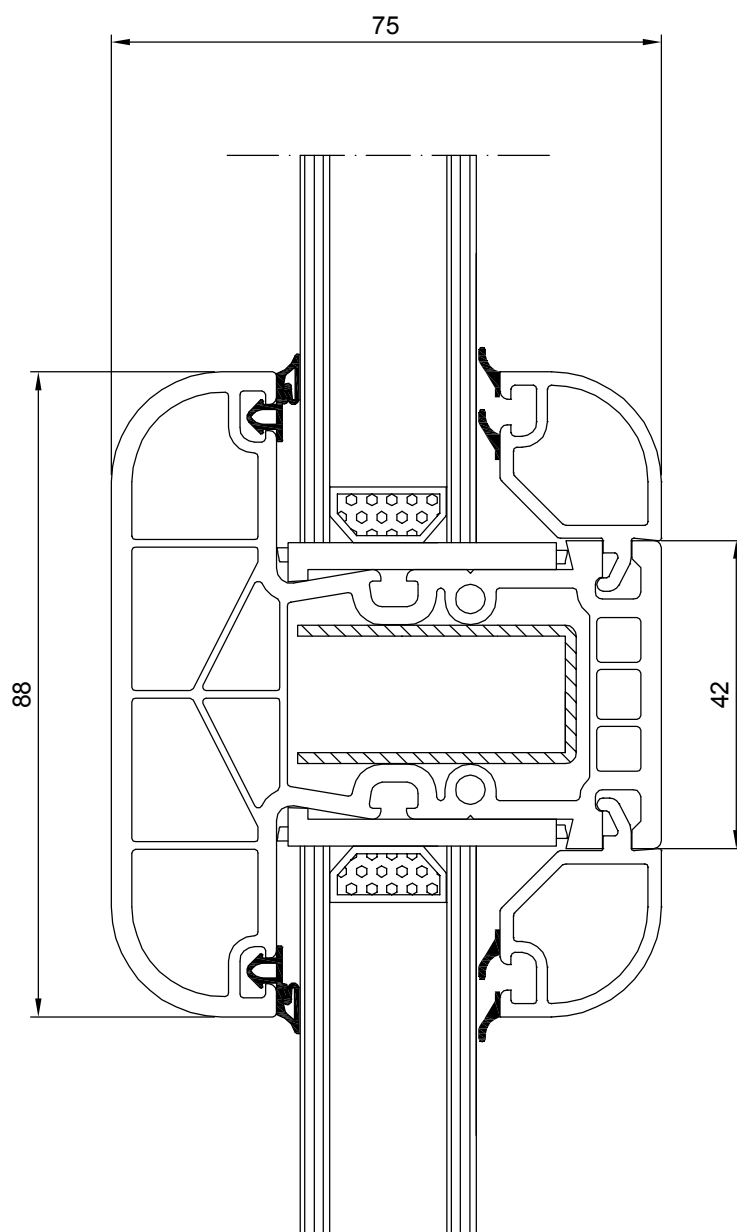
# FIKSNI PROZOR SISTEM 700



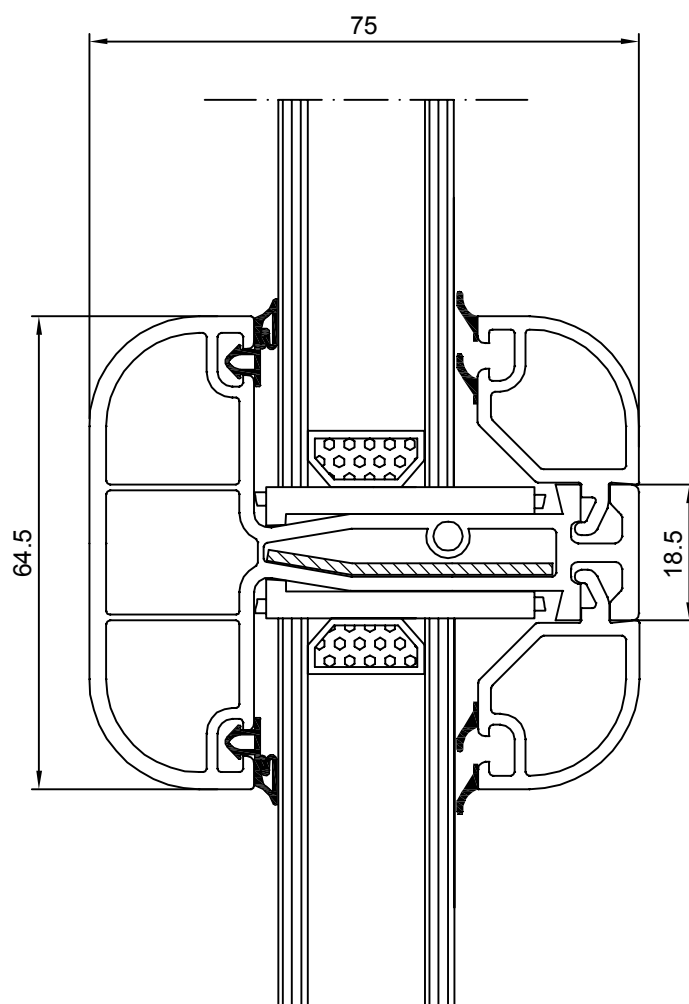
# FIKSNİ PROZOR SA PRO ŠIRENIM RAMOM SISTEM 600



PRESEK PROZORA  
STUB-LAJNSNA ZA STAKLO  
SISTEM 600



PRESEK PROZORA  
STUB 622 - LAJSNA ZA STAKLO  
SISTEM 600

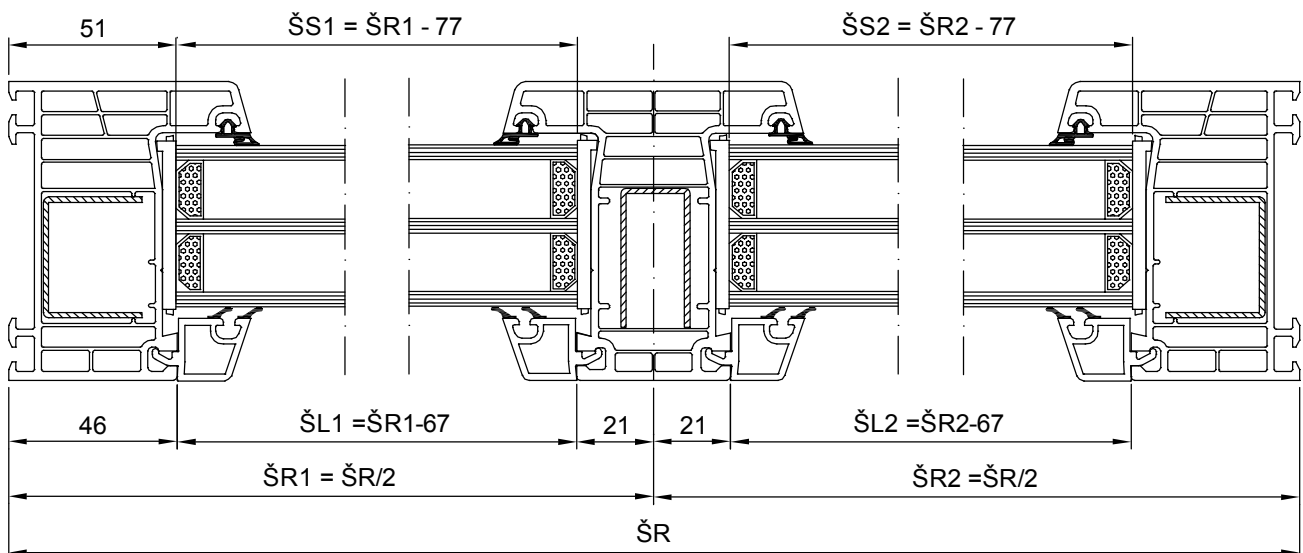
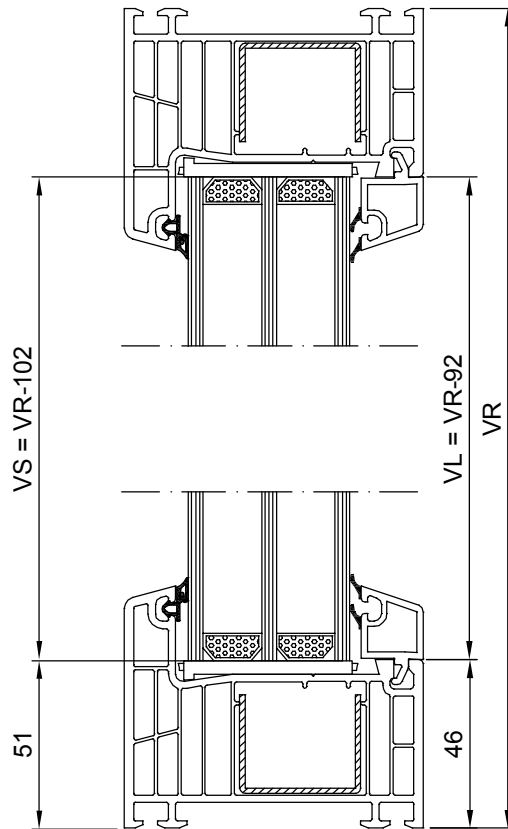
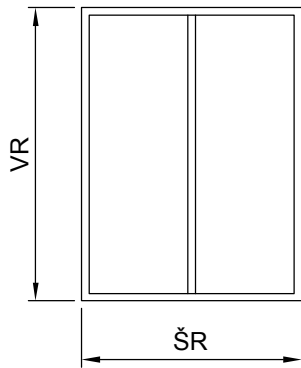




# FIKSNI PROZOR SA STUBOM SISTEM 700

## LEGENDA

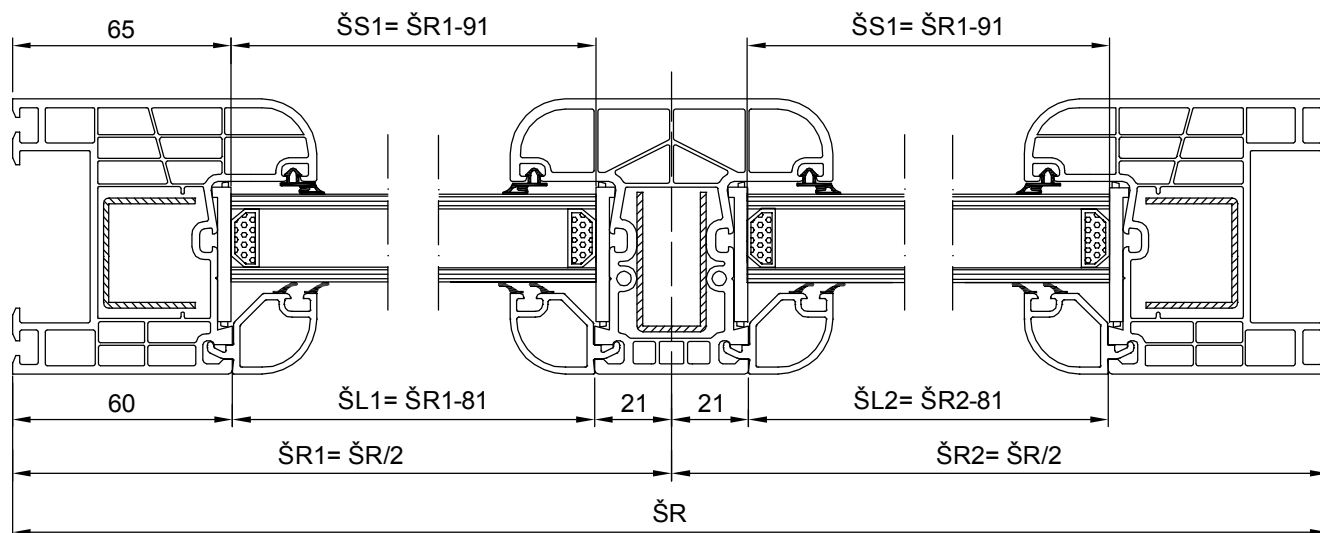
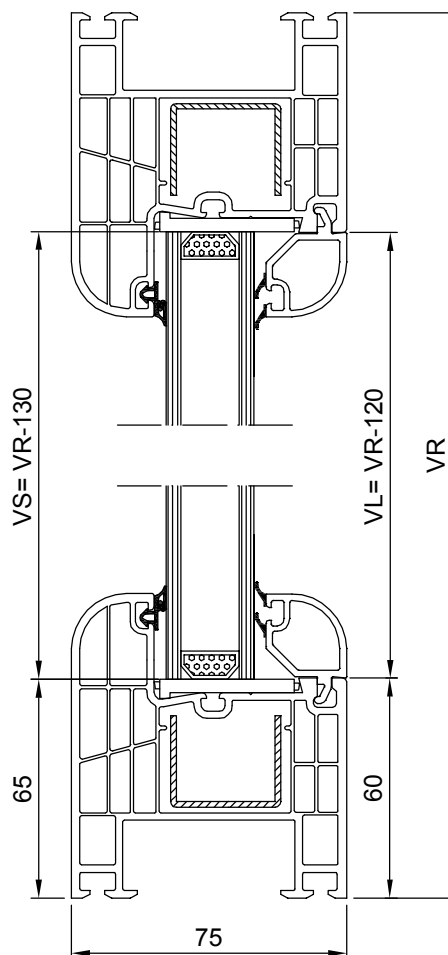
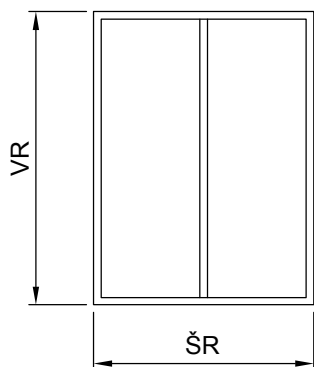
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 VR= VISINA RAMA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# FIKSNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600

## LEGENDA

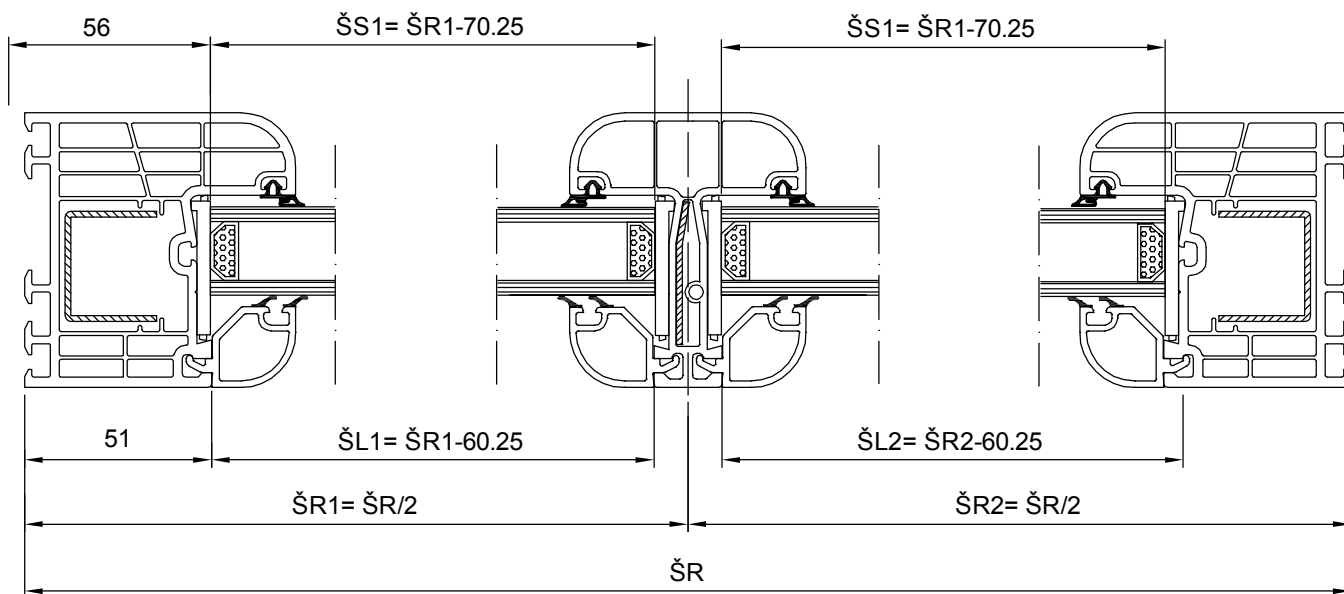
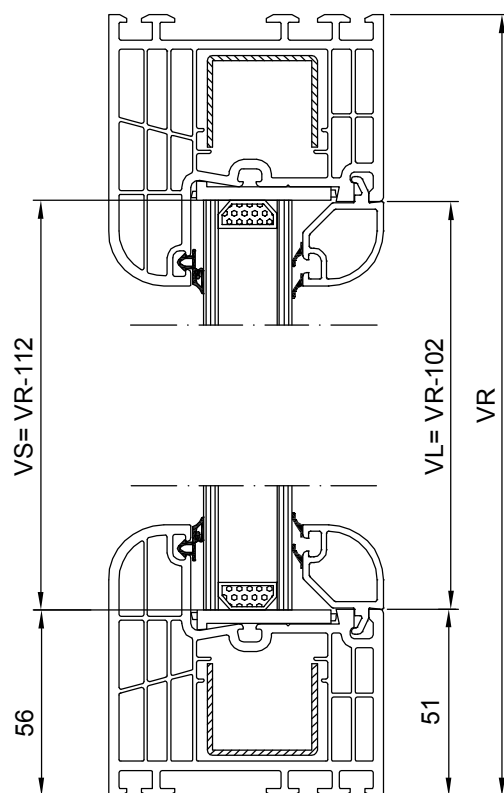
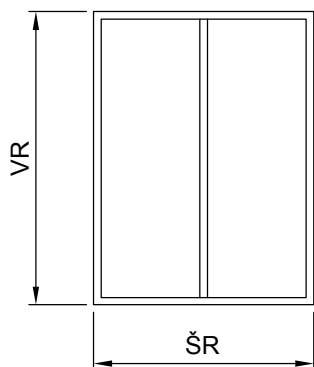
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 VR= VISINA RAMA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# FIKSNI PROZOR SA STUBOM 622 SISTEM 600

## LEGENDA

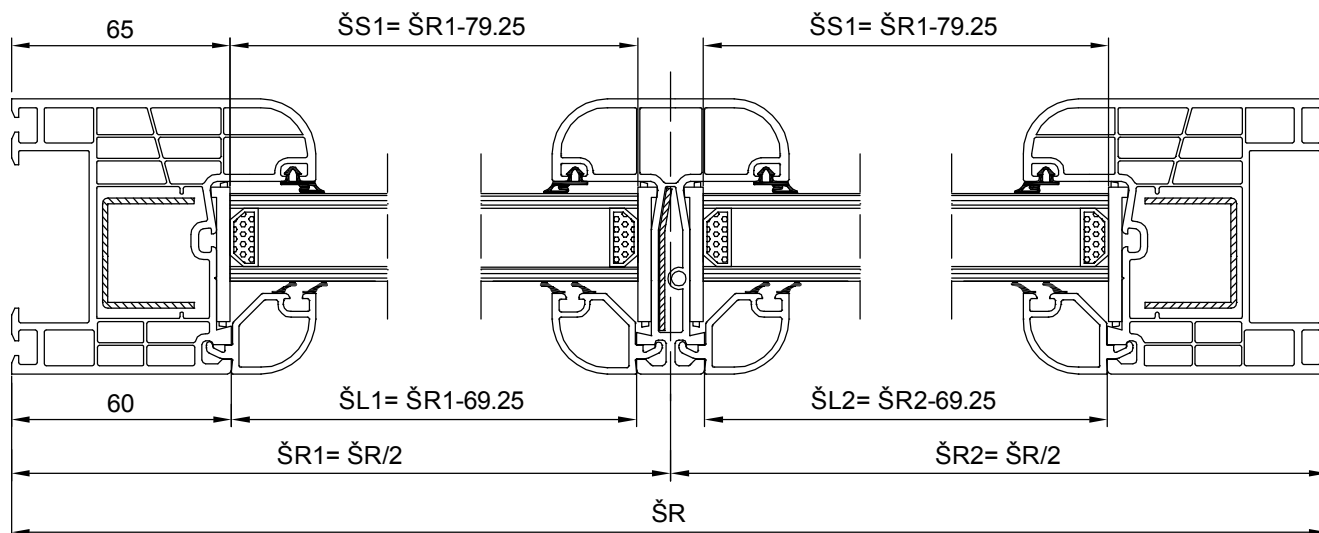
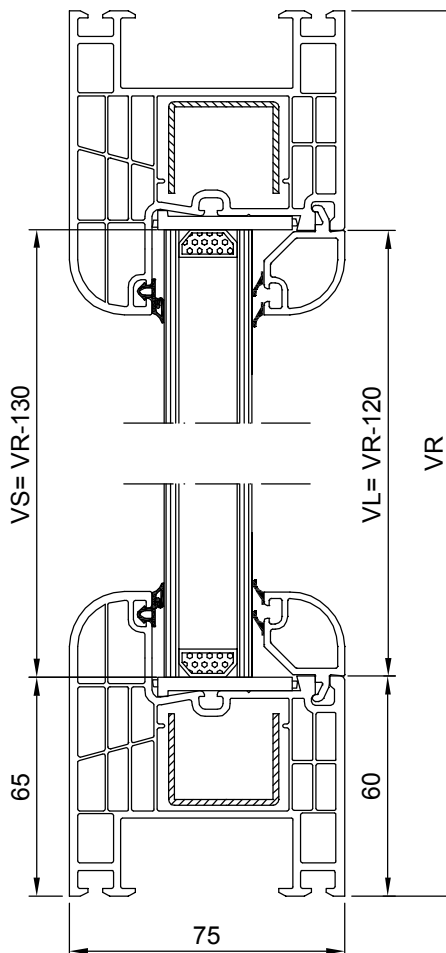
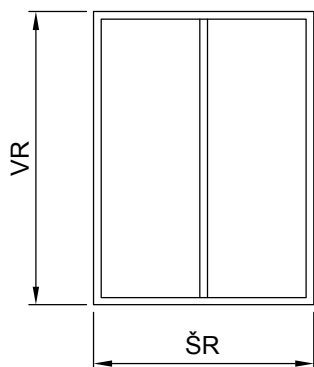
ŠR= ŠIRINA RAMA  
VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



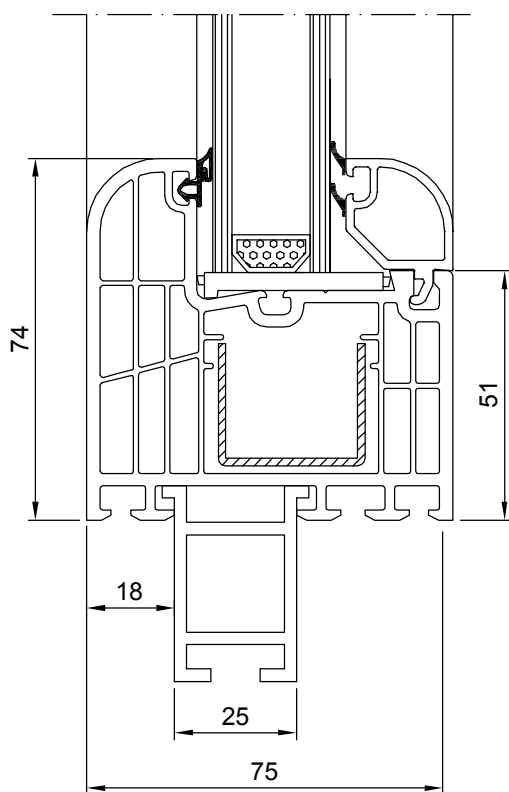
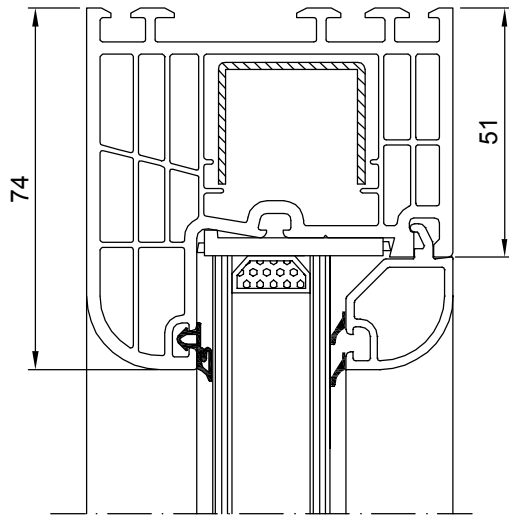
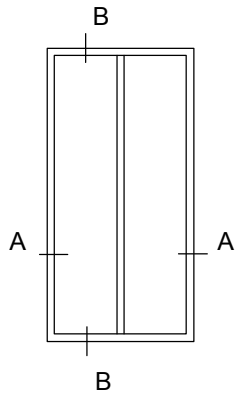
# FIKSNI PROZOR SA STUBOM 622 I PROŠIRENIM RAMOM SISTEM 600

## LEGENDA

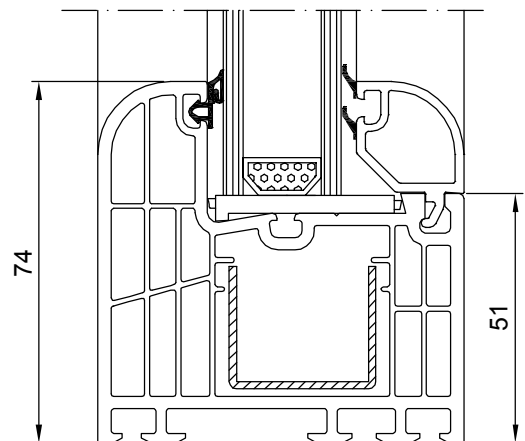
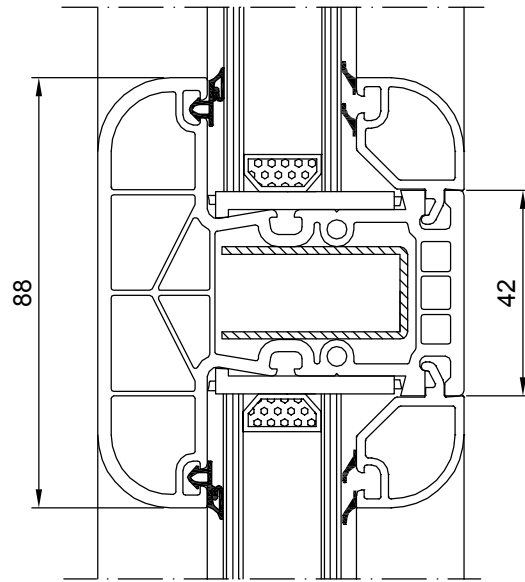
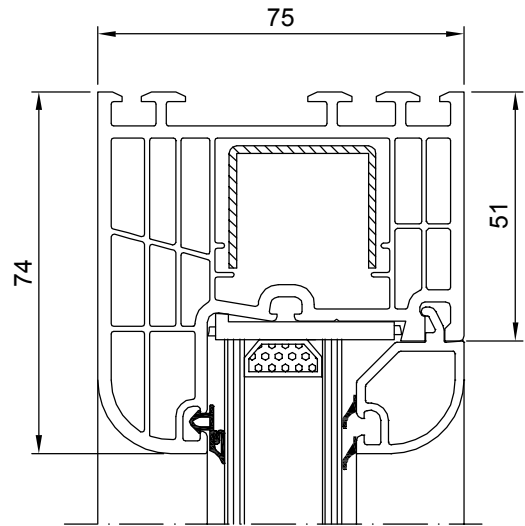
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# FIKSNI PROZOR SA STUBOM SISTEM 600

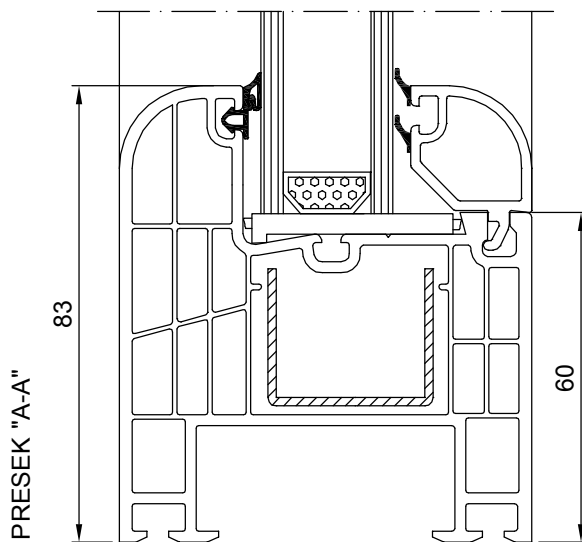
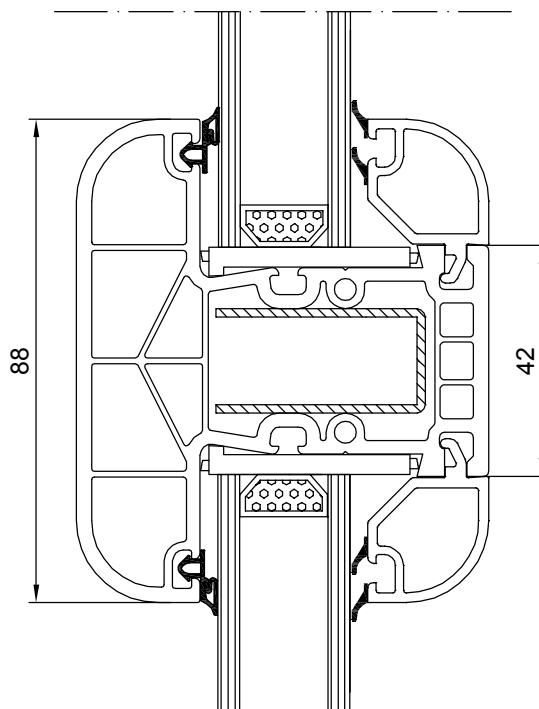
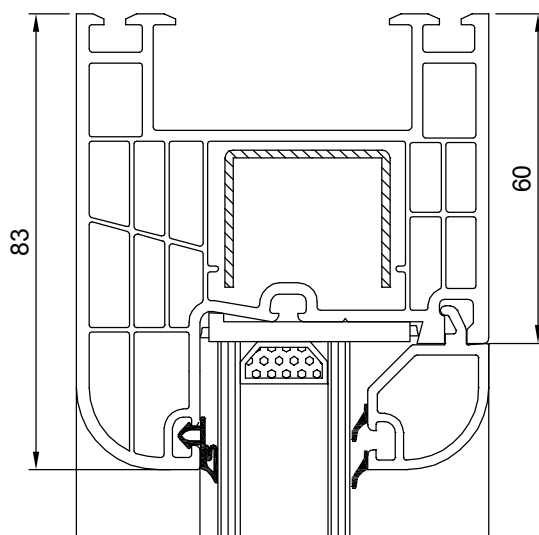
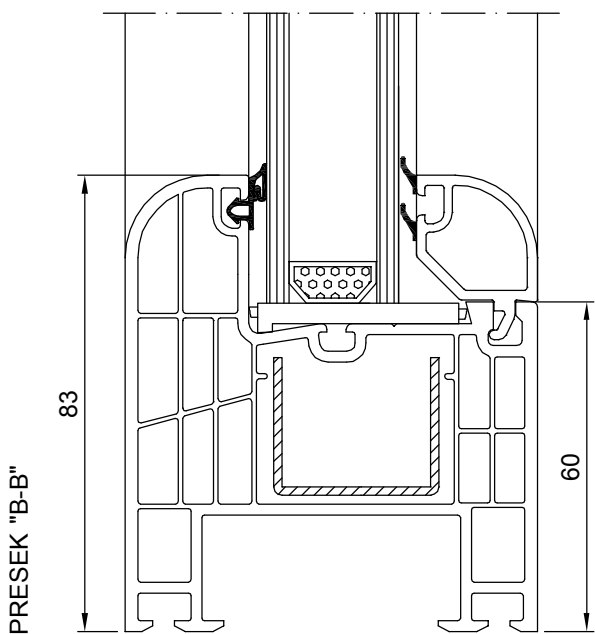
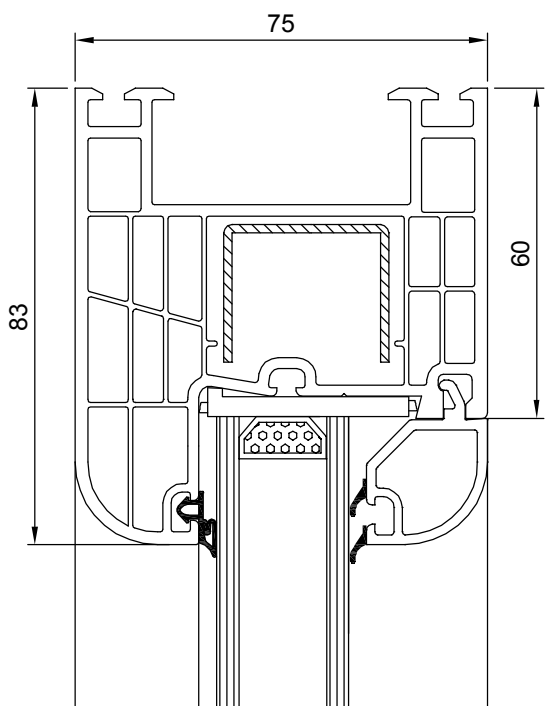
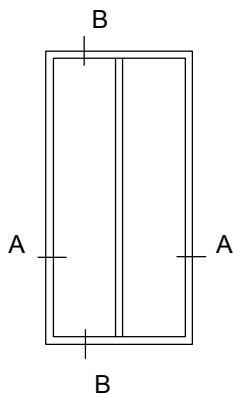


PRESEK "B-B"



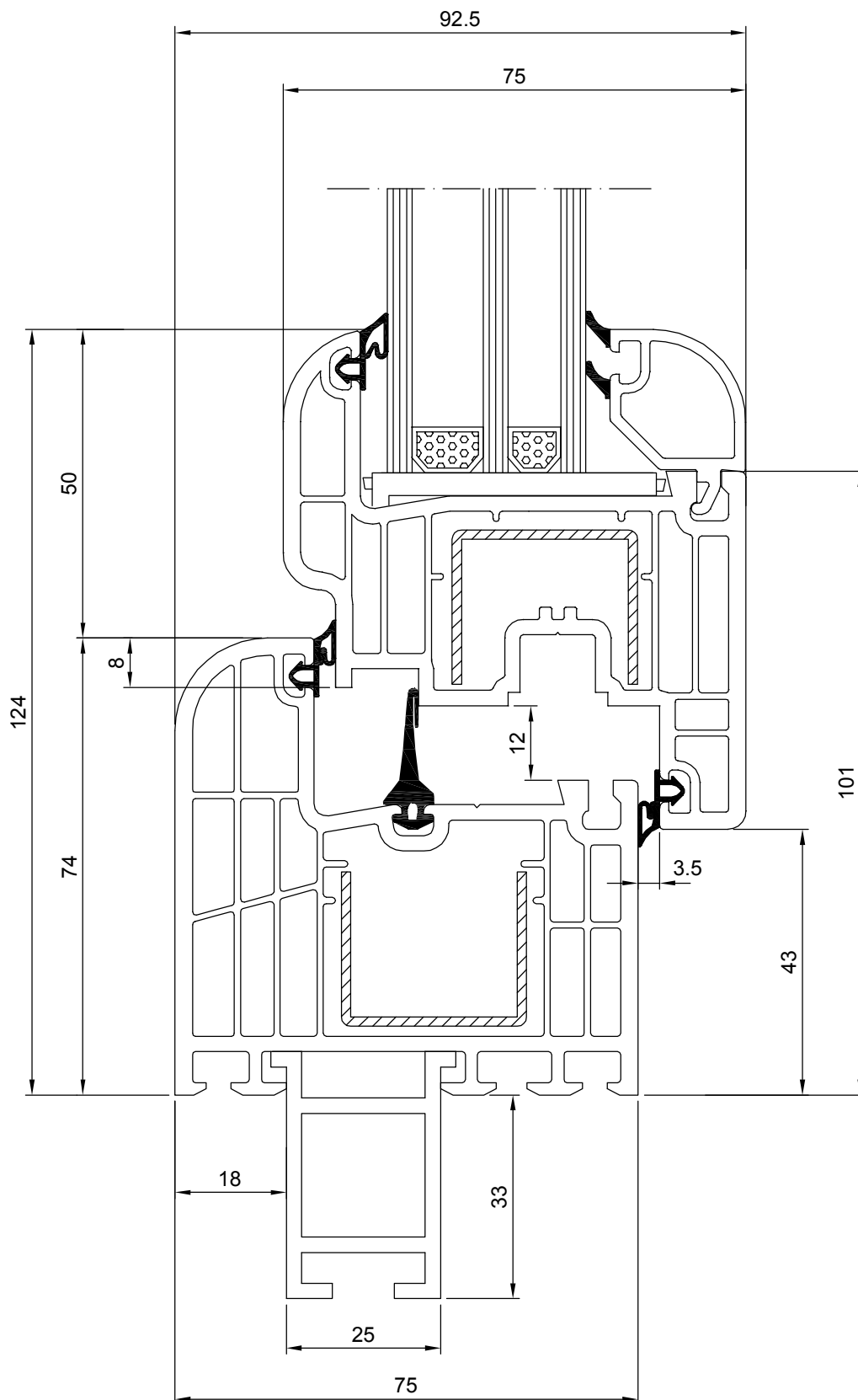
PRESEK "A-A"

# FIKSNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600



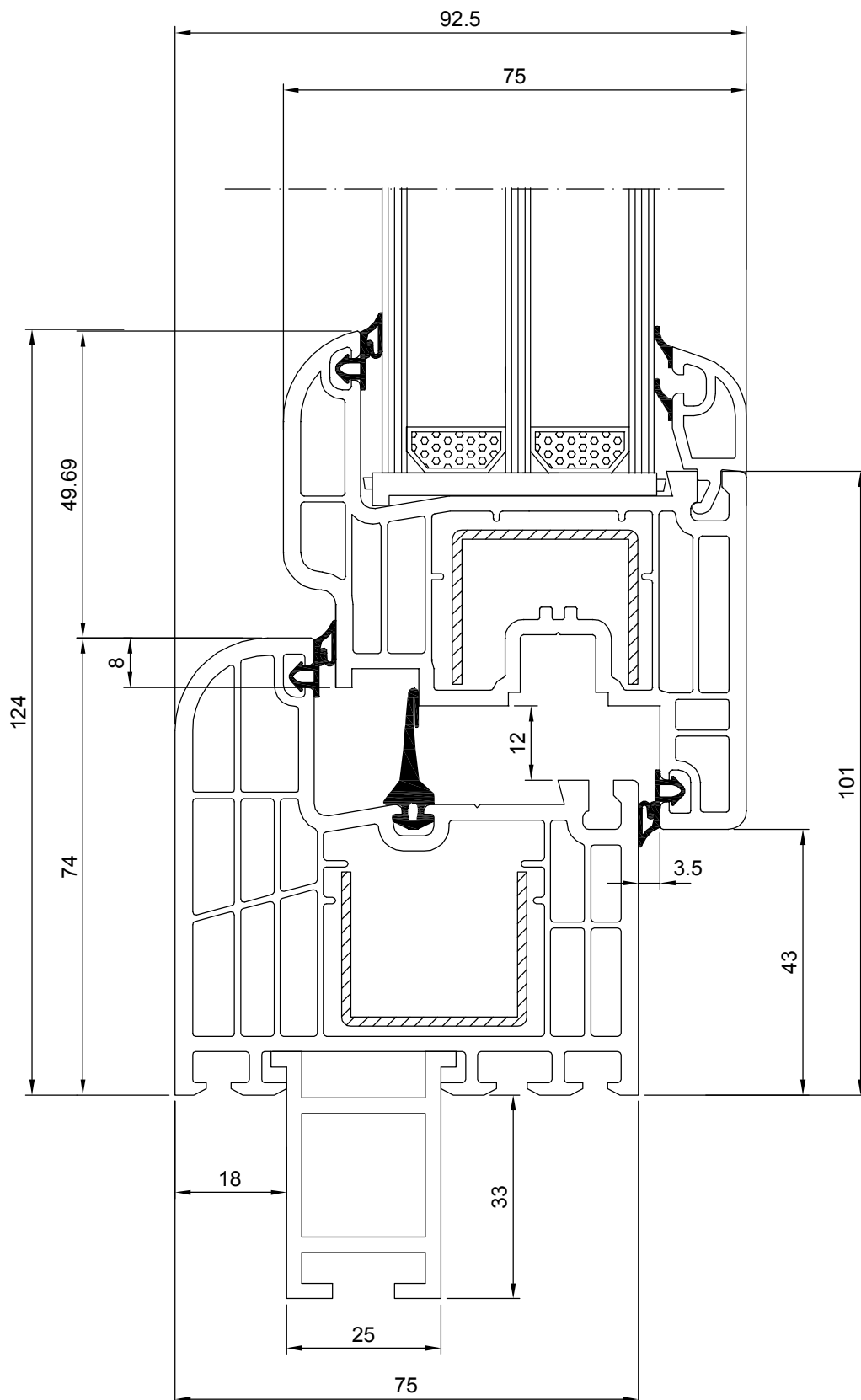


PRESEK PROZORA PODMETA Č-RAM-KRILO  
SISTEM 600 SA  
TROSTRUKIM STAKLOM 613\_630

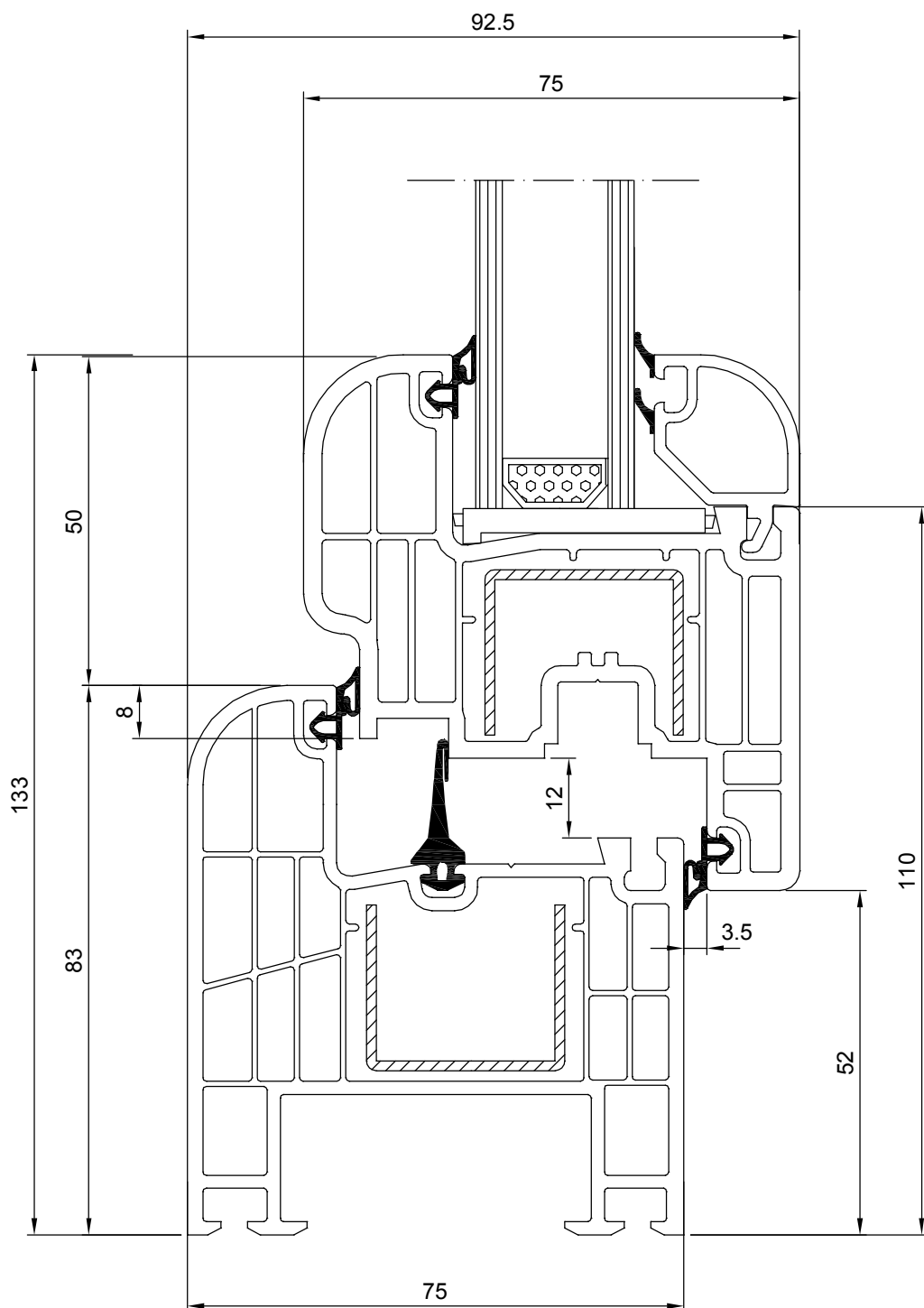




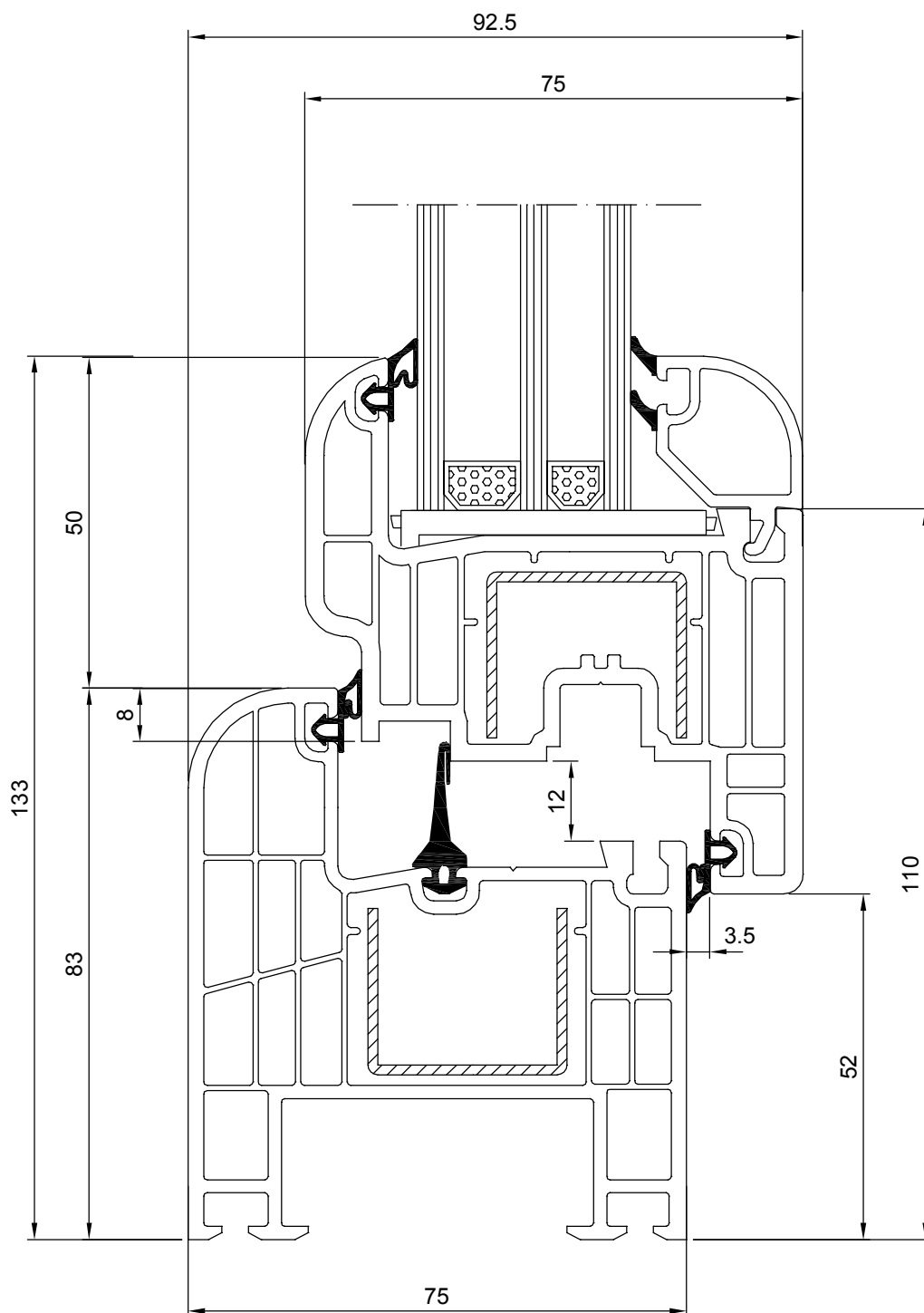
PRESEK PROZORA  
PODMETAČ-RAM-KRILO  
SISTEM 600 SA  
TROSLOJNIM STAKLOM 613\_330



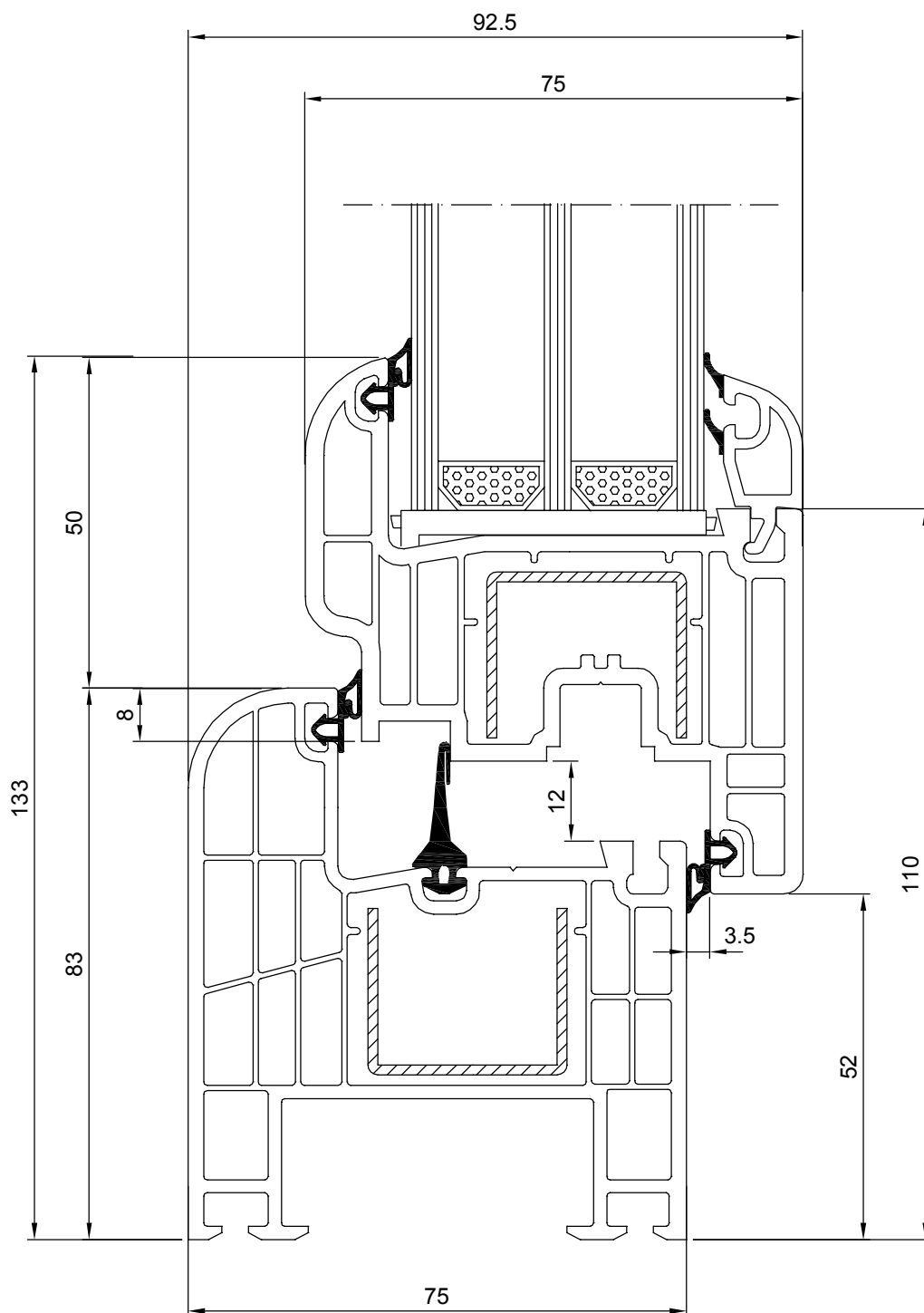
PRESEK PROZORA  
PROŠIRENI RAM-KRILO  
SYSTEM 600



PRESEK PROZORA  
PROŠIRENI RAM-KRILO  
SISTEM 600 SA TROSLOJNIM STAKLOM  
613\_630



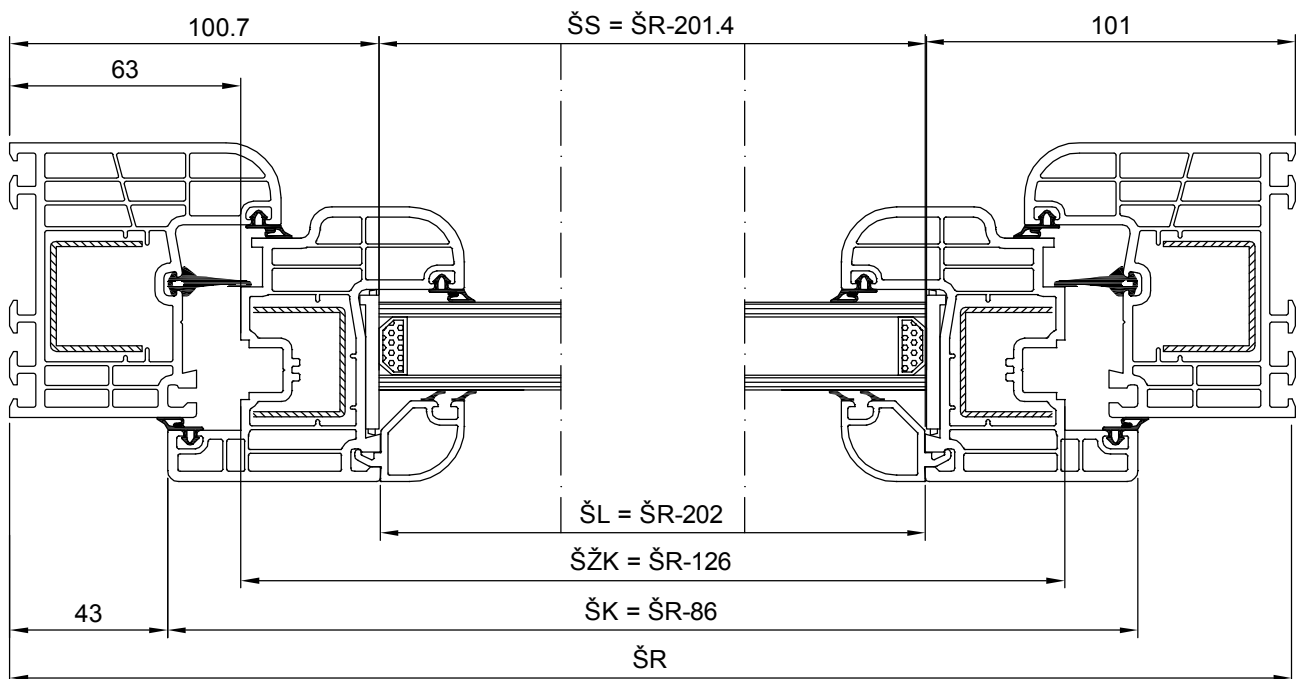
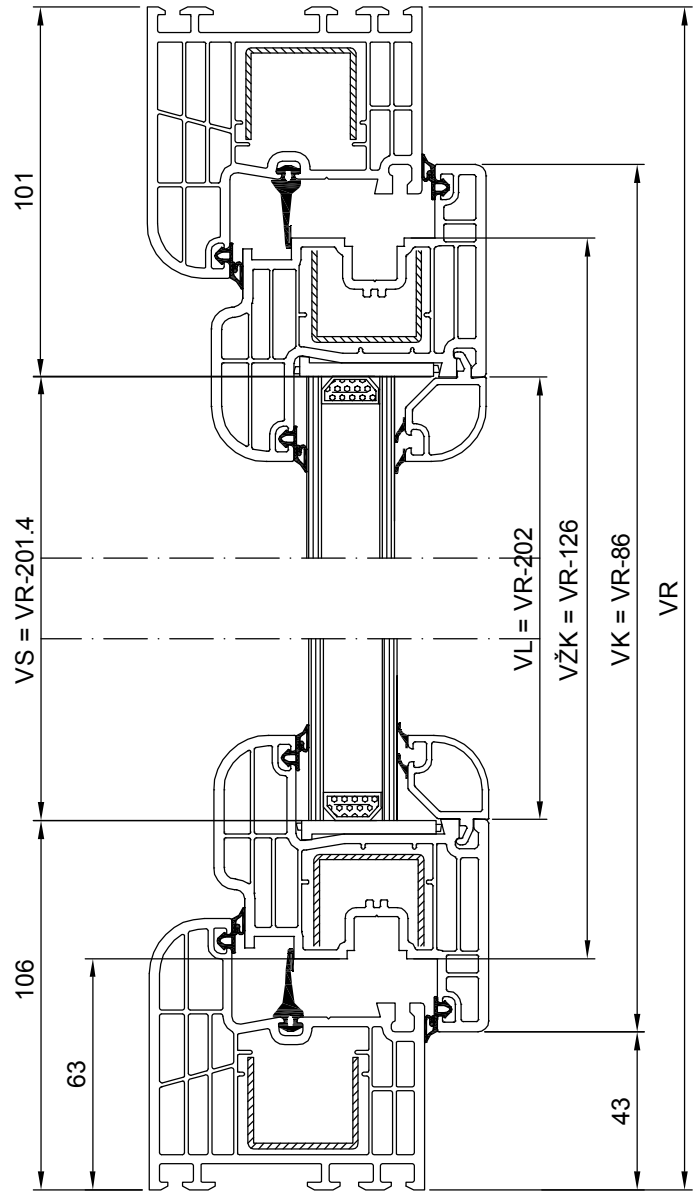
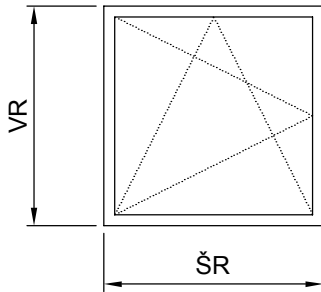
PRESEK PROZORA  
PROŠIRENI RAM-KRILO  
SISTEM 600 SA TROSLOJNIM STAKLOM  
613\_330



# JEDNOKRILNI PROZOR SISTEM 600

## LEGENDA

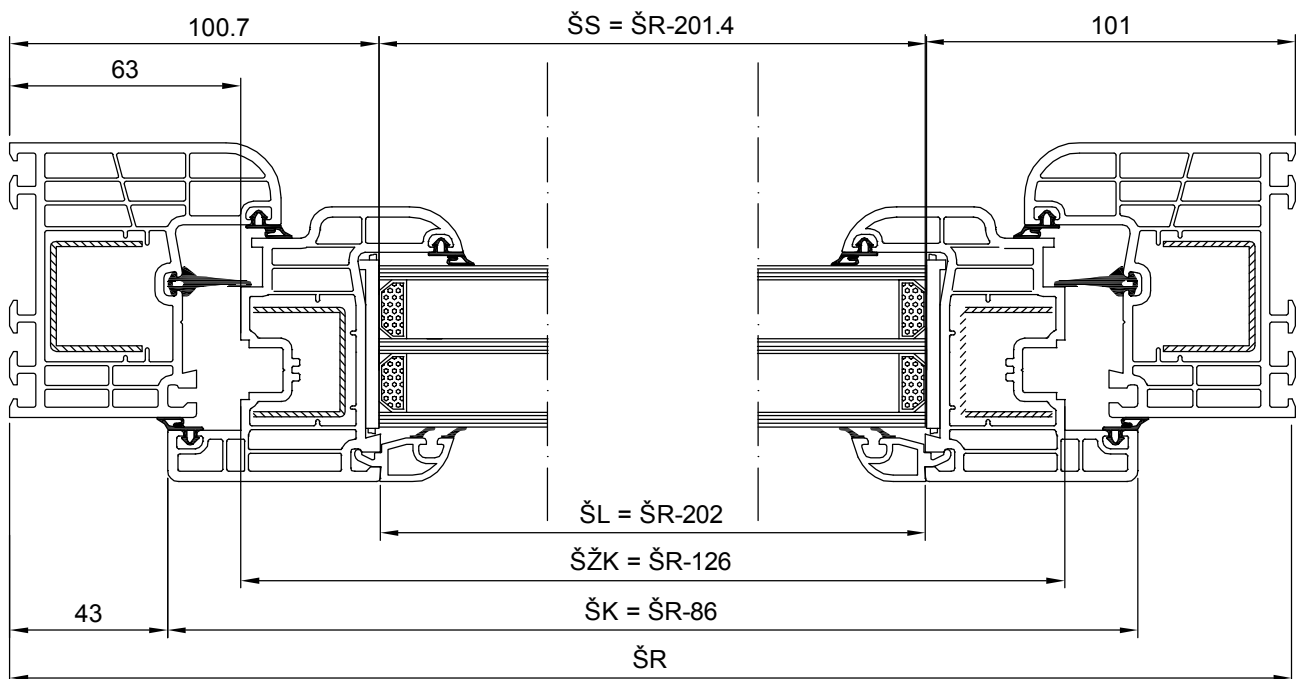
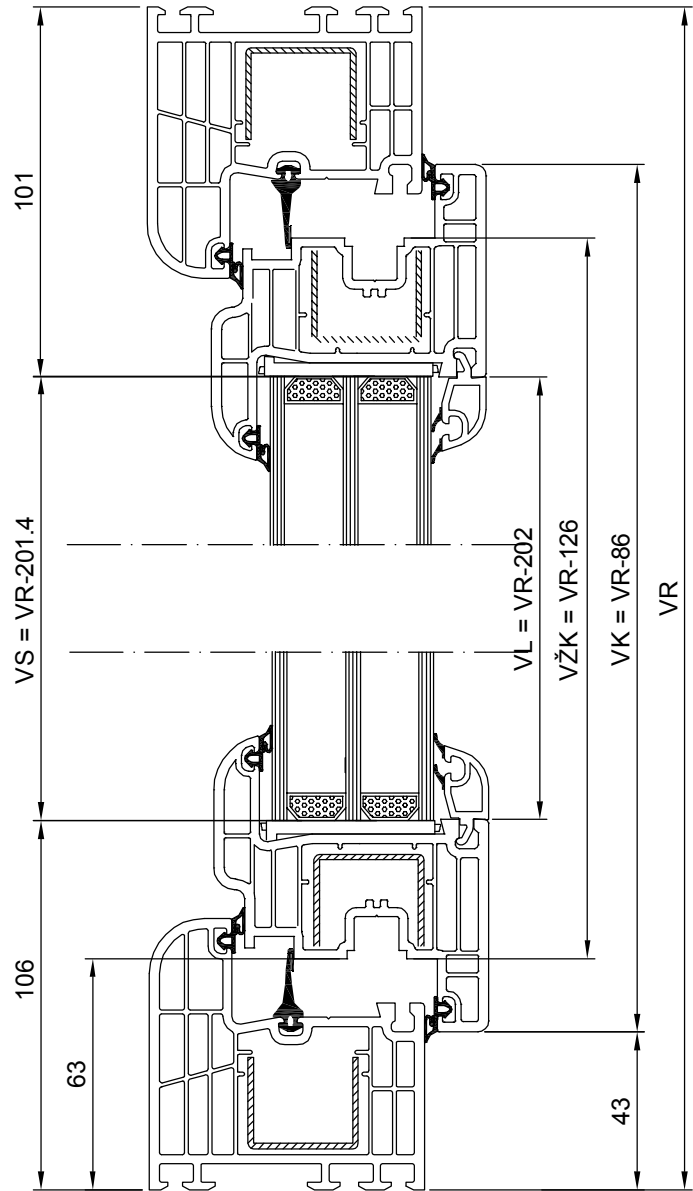
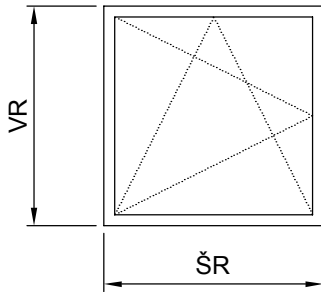
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# JEDNOKRILNI PROZOR SA PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLON 613-630

## LEGENDA

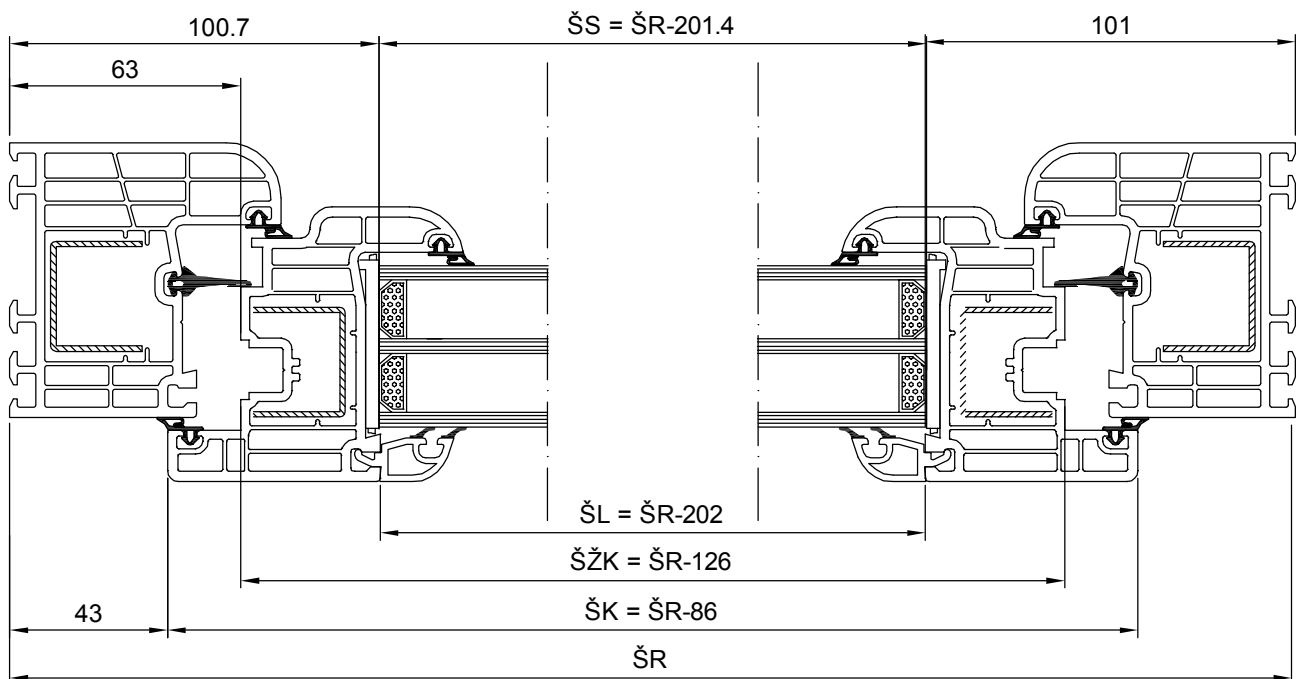
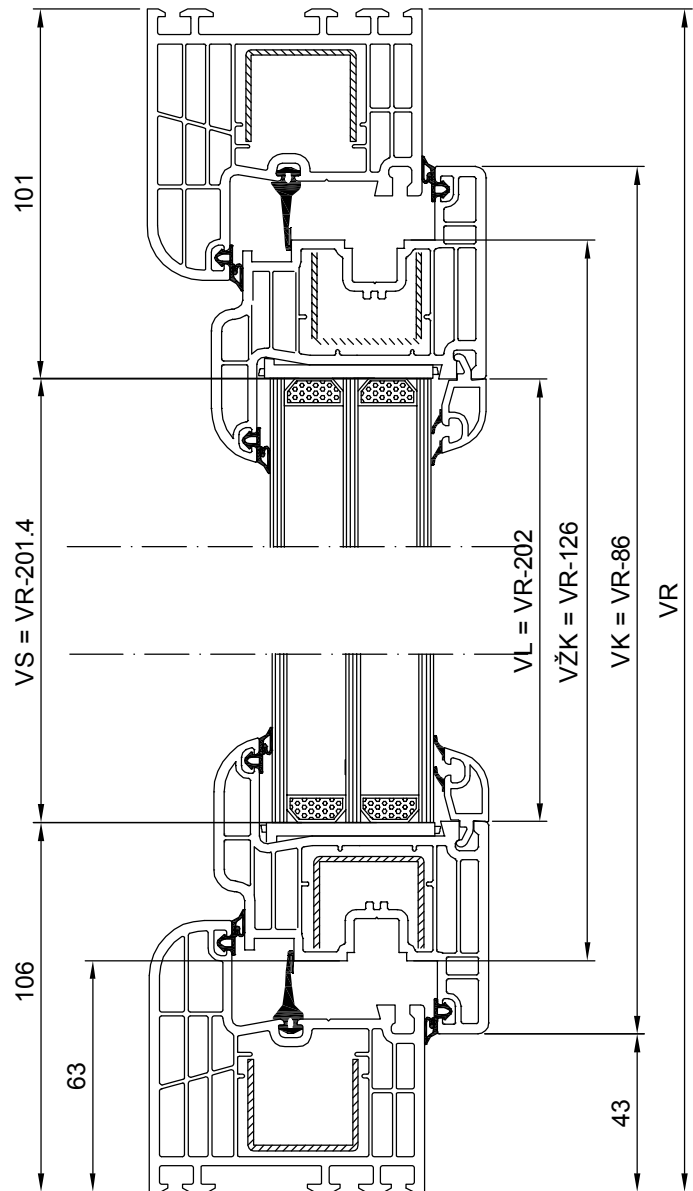
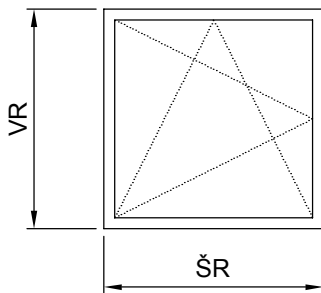
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
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# JEDNOKRILNI PROZOR SA PROŠIRENIM RAMOM SISTEM 600 SA TROSLAJNIM STAKLOM 613\_330

## LEGENDA

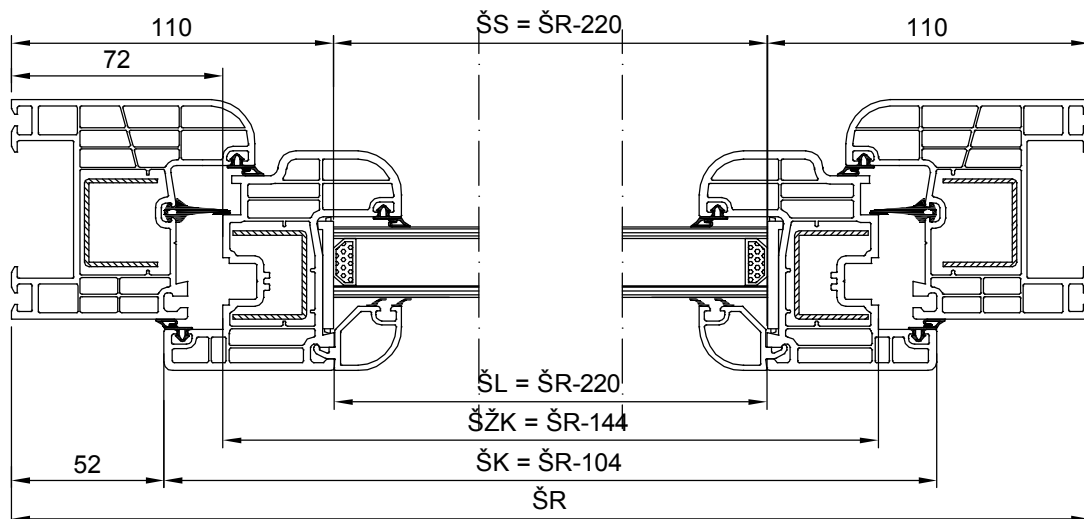
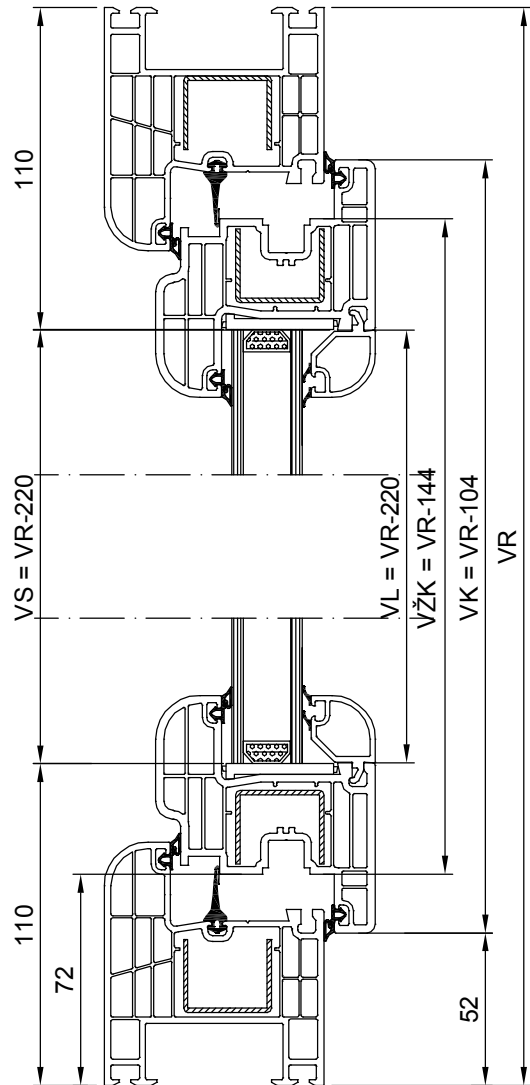
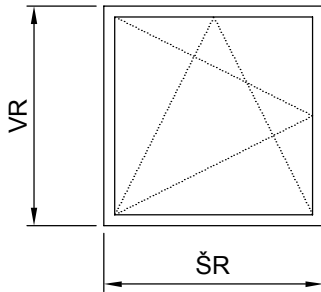
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# JEDNOKRILNI PROZOR SA PROŠIRENIM RAMOM SISTEM 600

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
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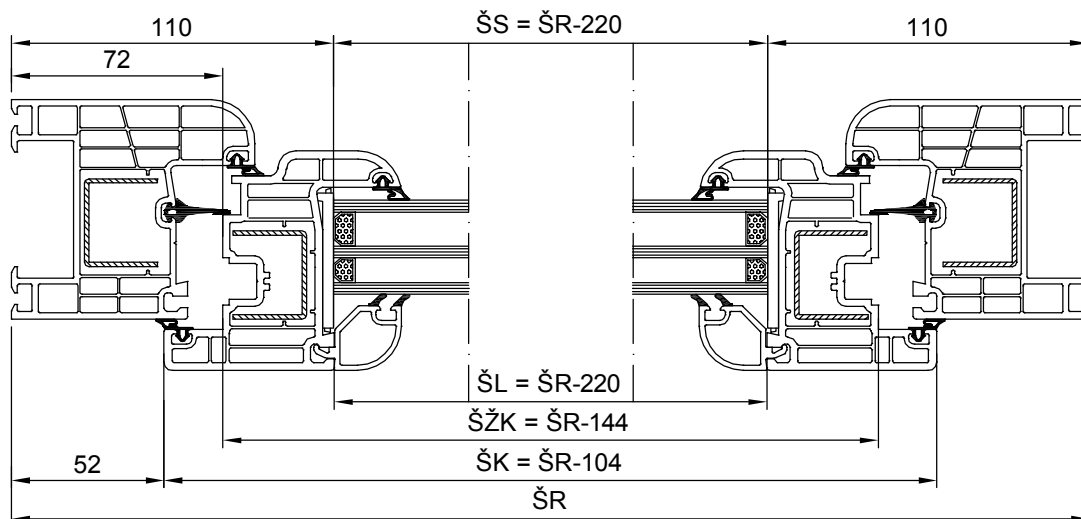
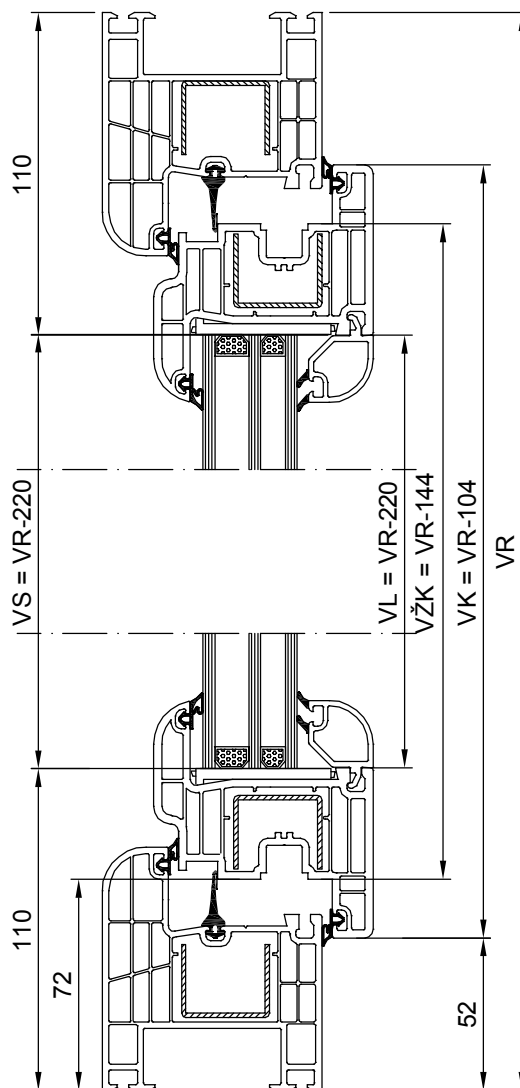
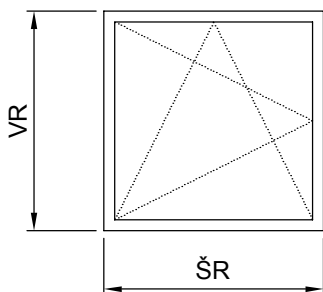




# JEDNOKRILNI PROZOR SA PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLON 613-630

## LEGENDA

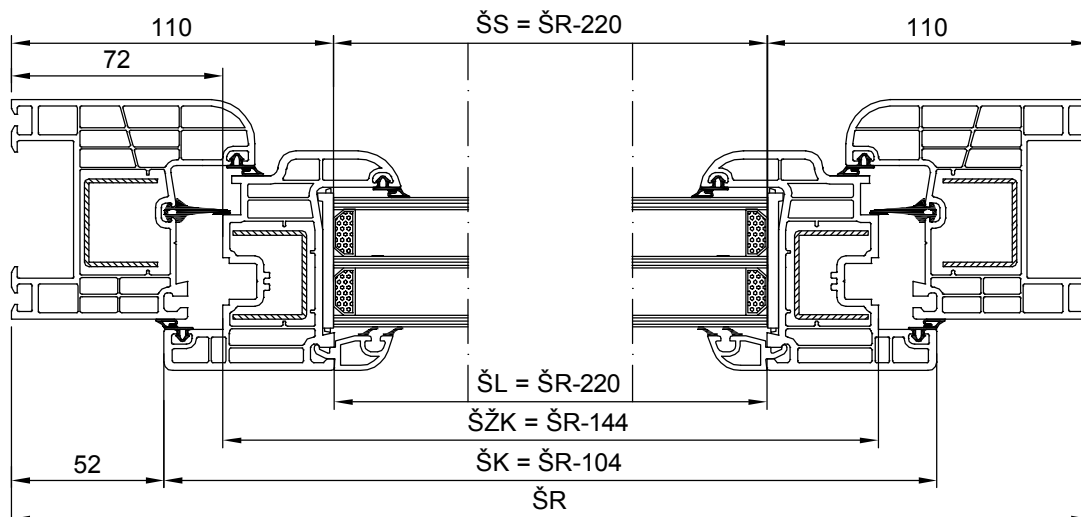
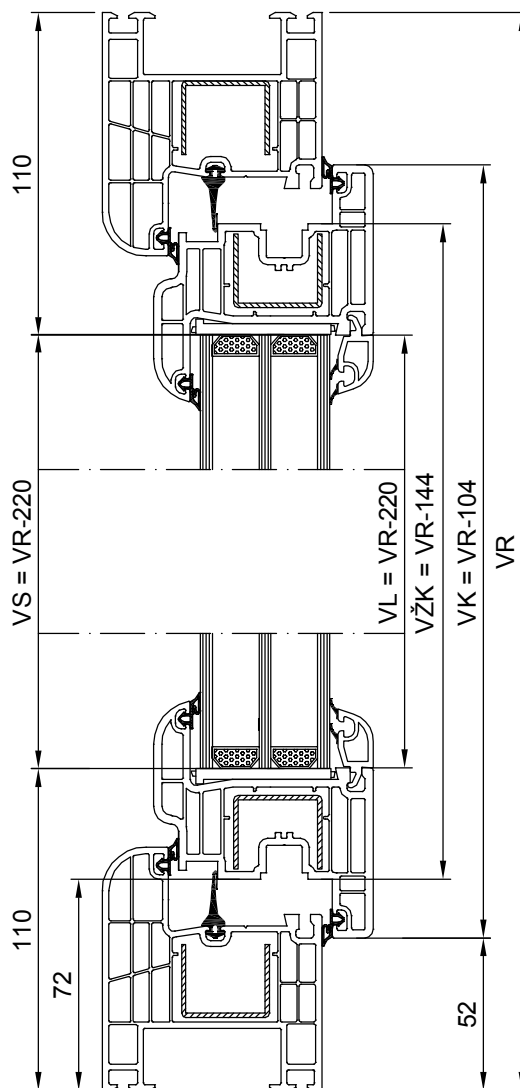
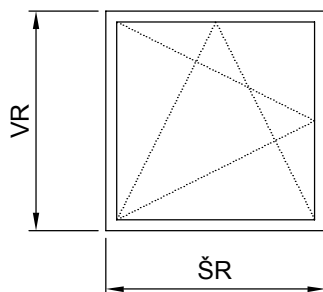
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 VŽK= VISINA ŽLEBA KRILA  
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 VL=VISINA LAJSNE  
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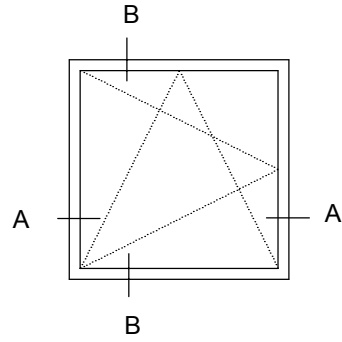
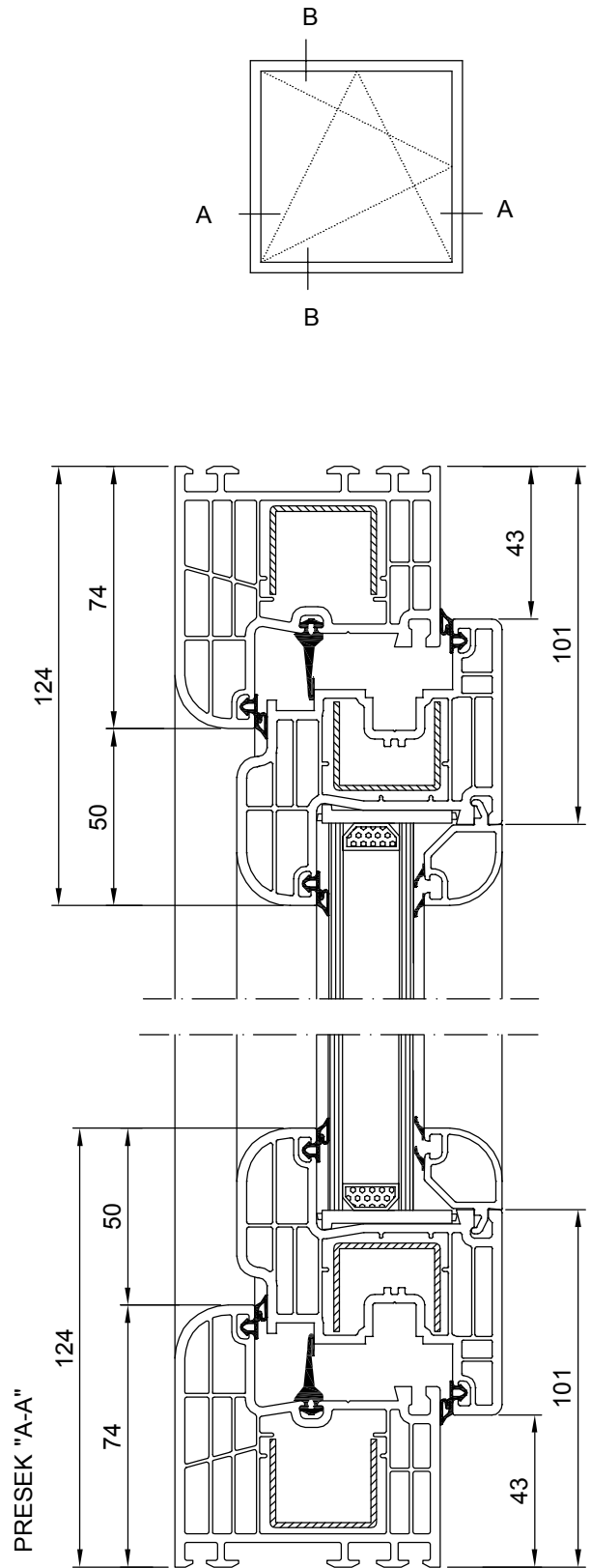
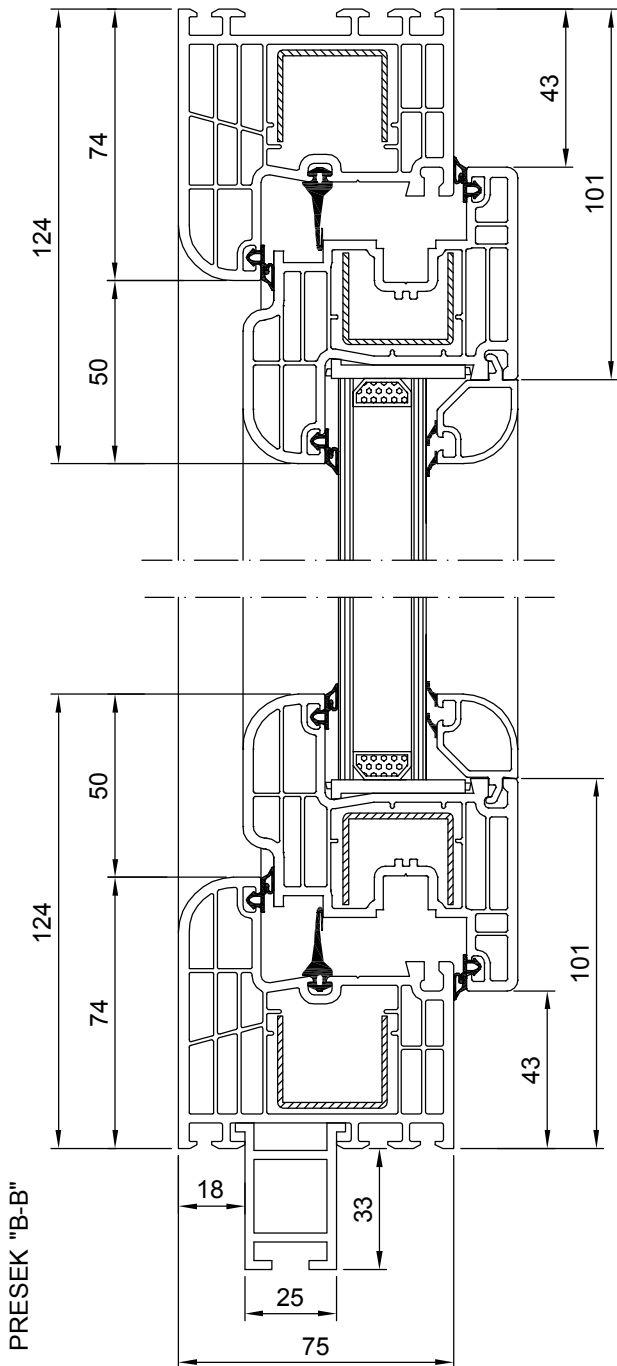
# JEDNOKRILNI PROZOR SA PROŠIRENIM RAMOM SISTEM 600 SA TROSLAJNIM STAKLOM 613\_330

## LEGENDA

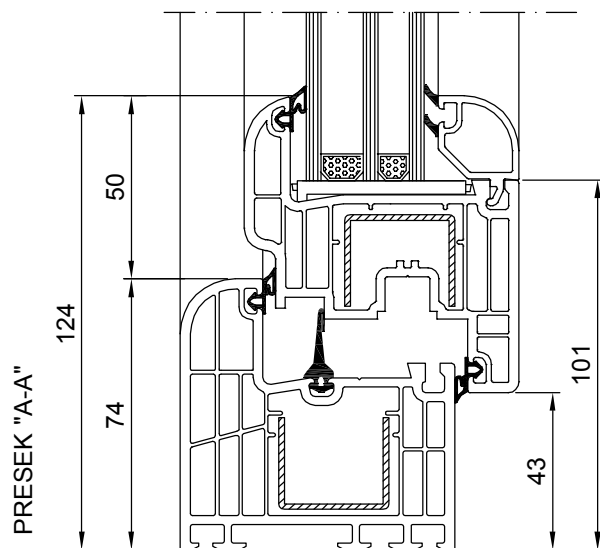
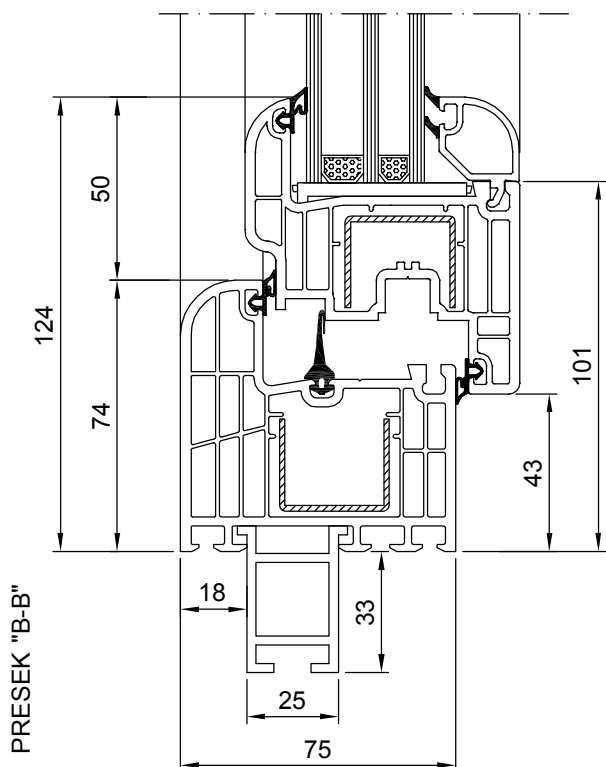
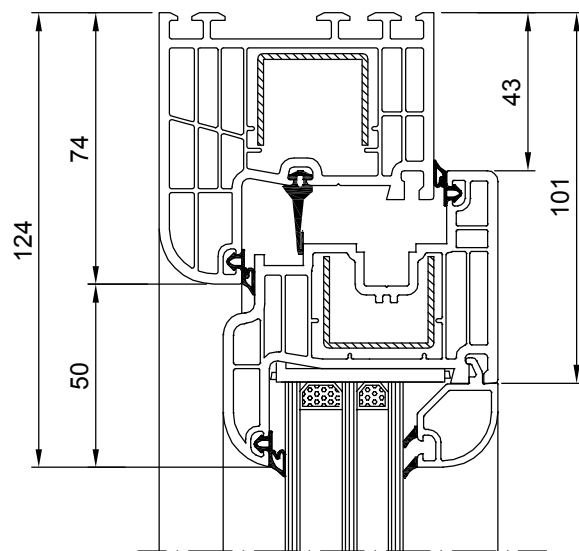
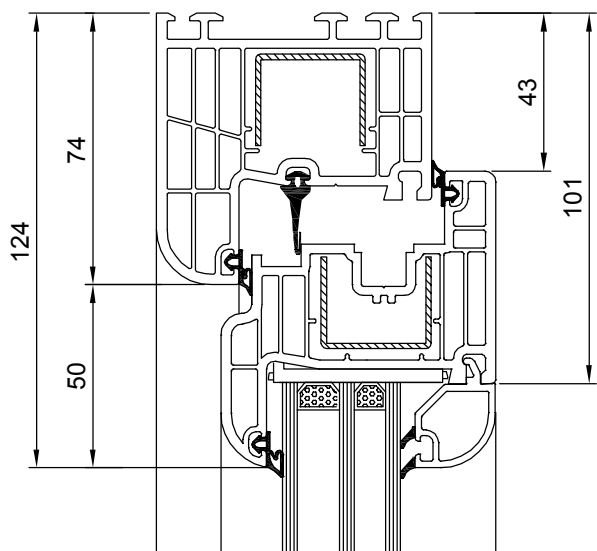
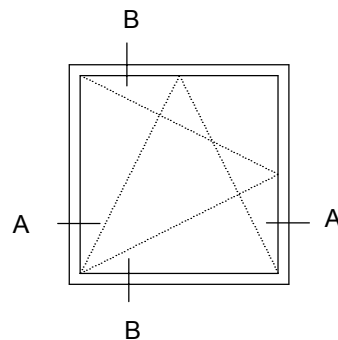
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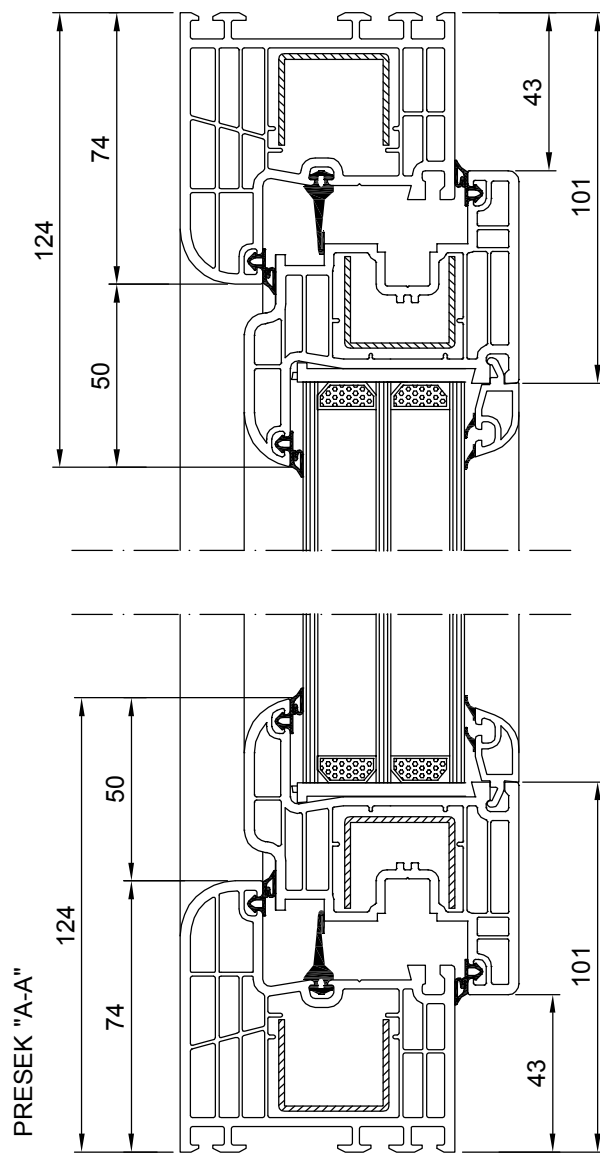
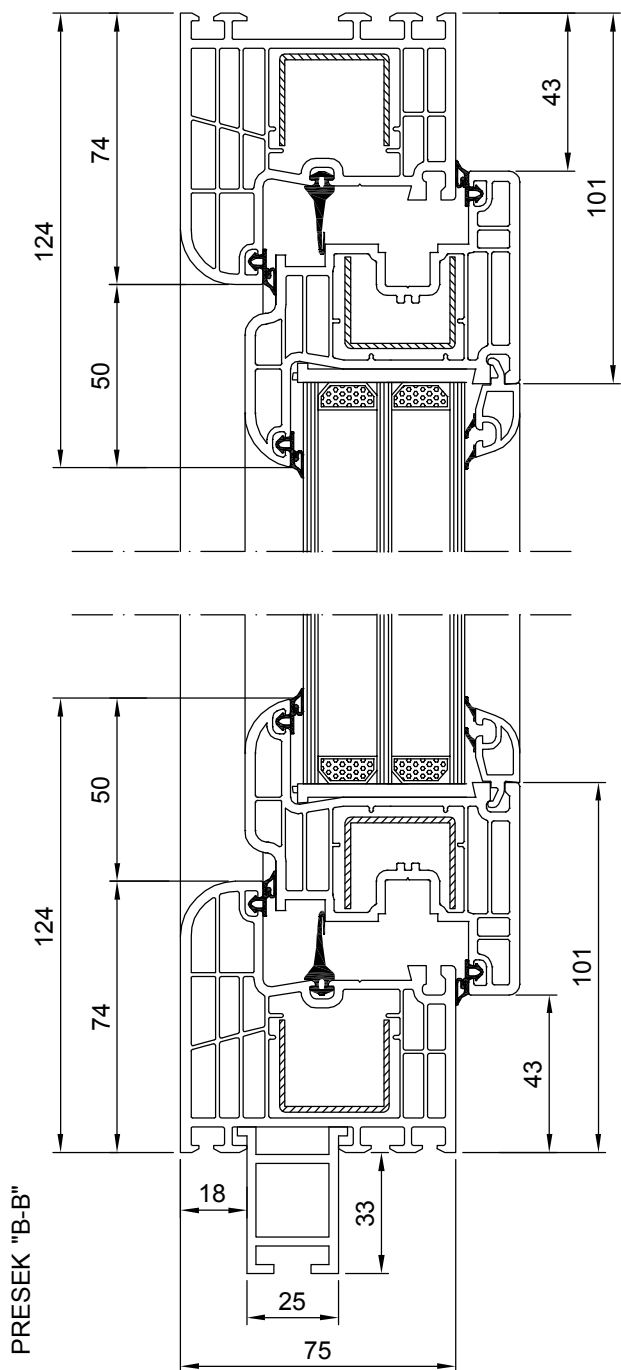
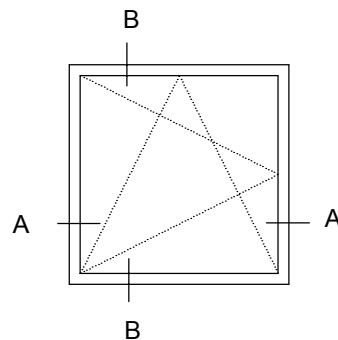
# JEDNOKRILNI PROZOR SISTEM 600



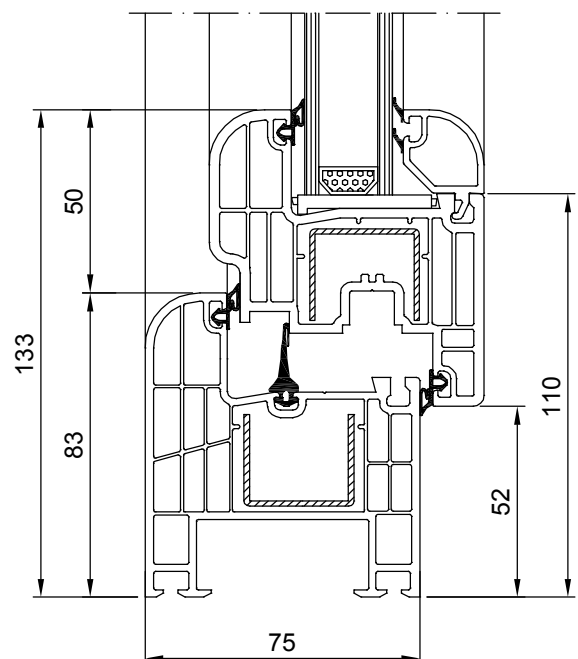
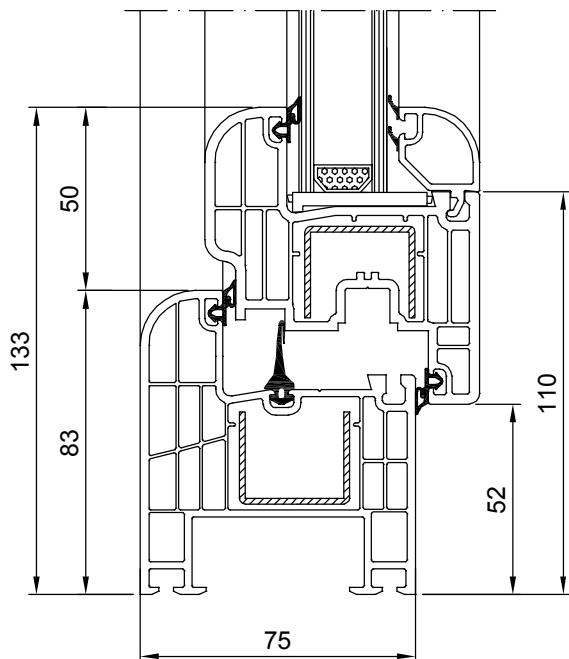
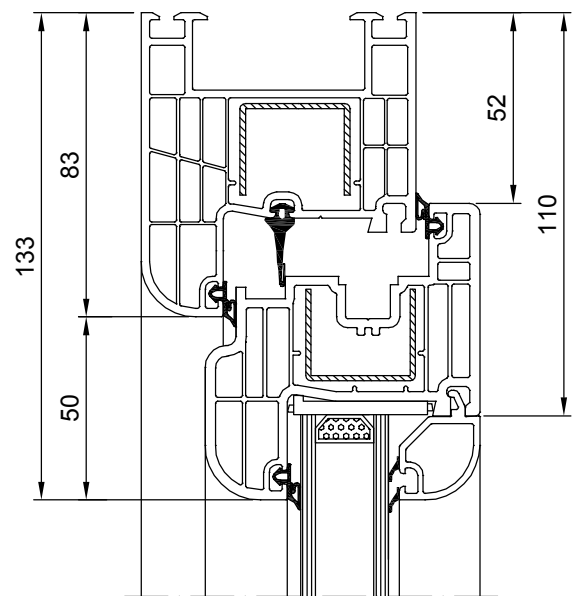
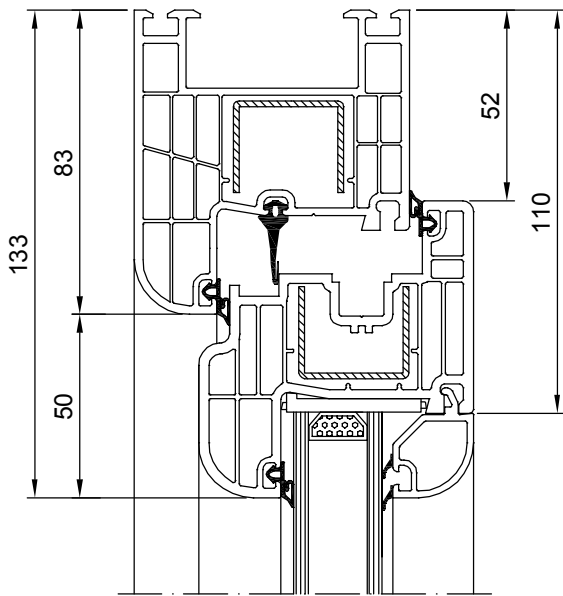
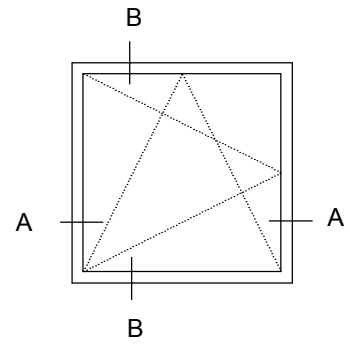
# JEDNOKRILNI PROZOR SA TROSLOJNIM STAKLOM 613\_630 SISTEM 600



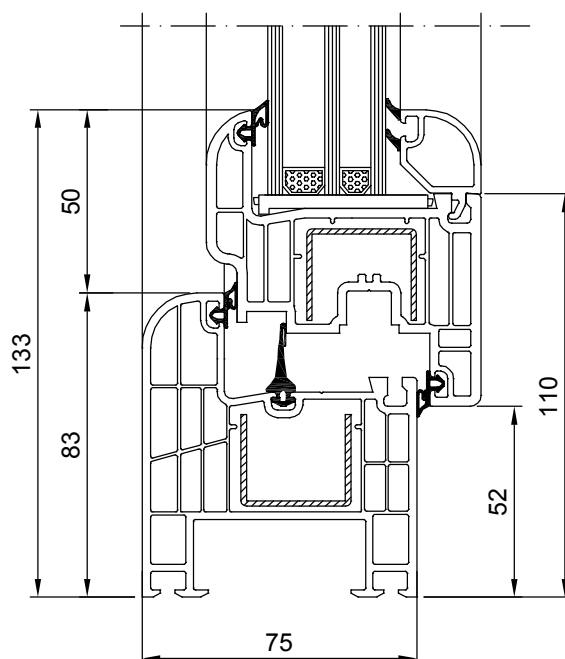
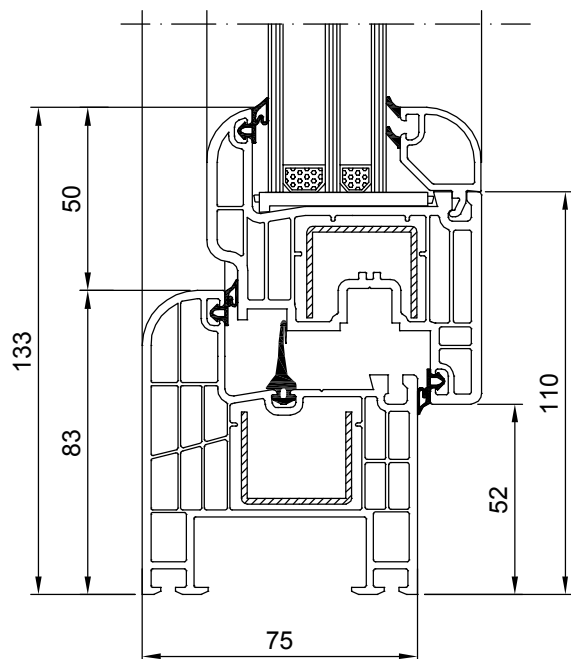
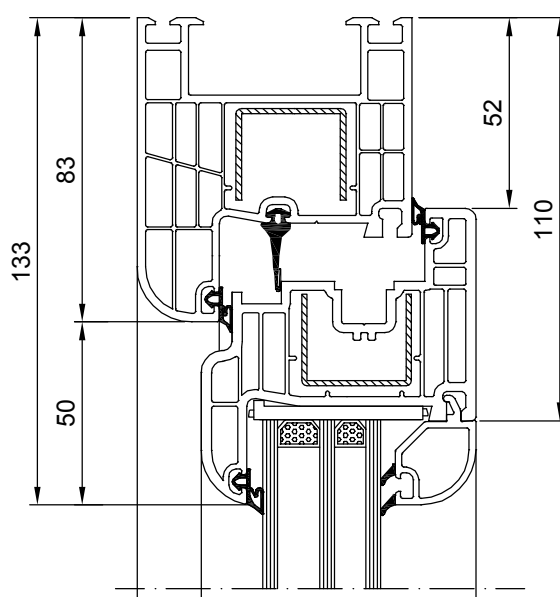
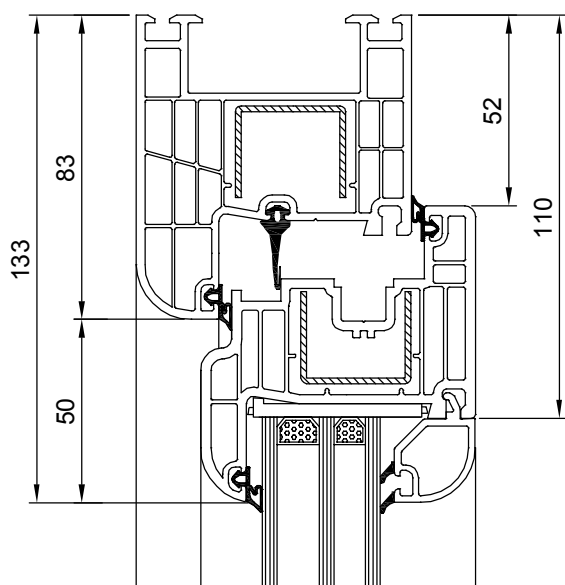
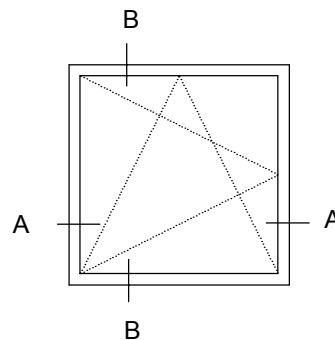
# JEDNOKRILNI PROZOR SISTEM 600 SA TROSLOJNIM SATKLOM 613\_330



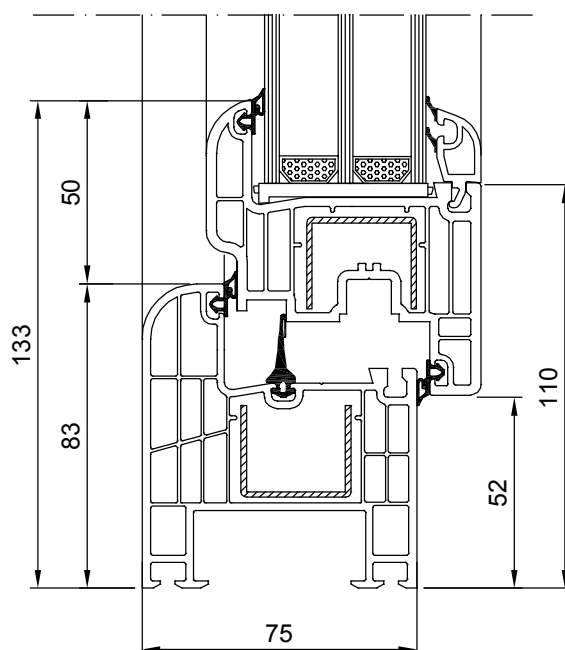
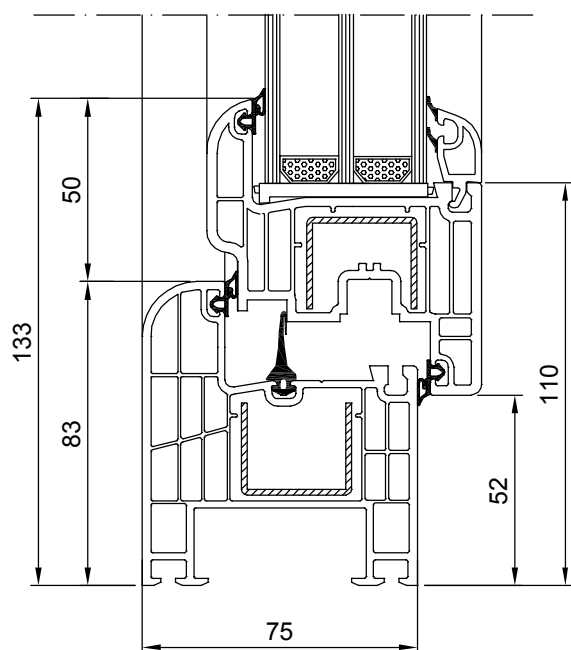
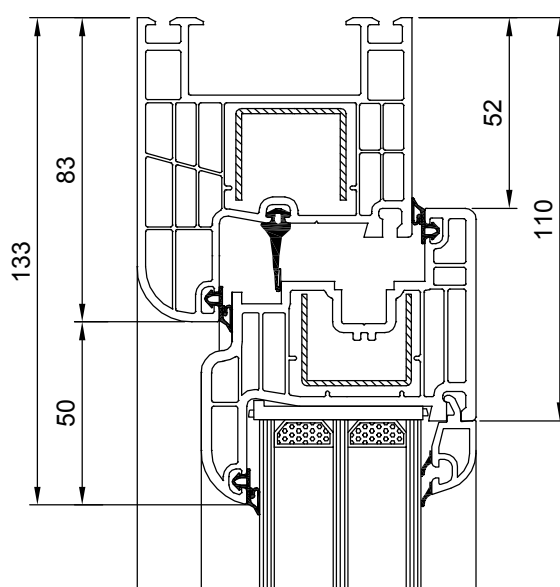
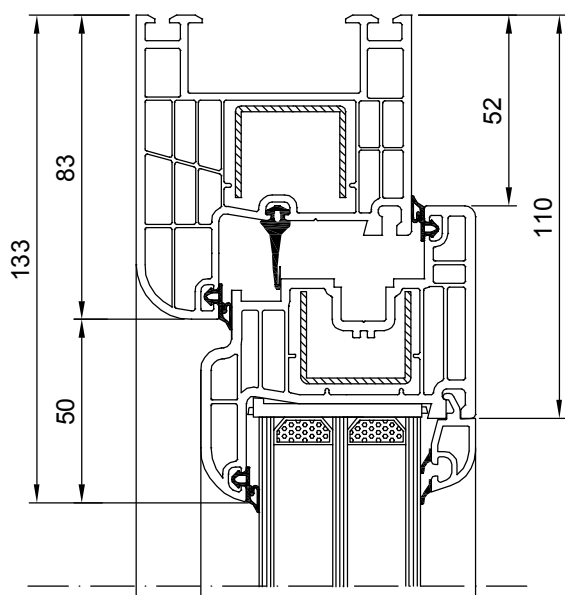
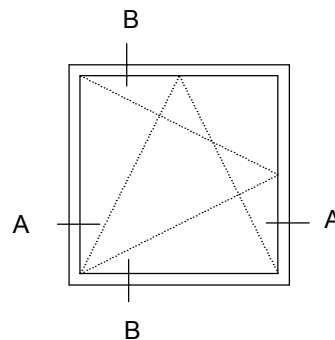
# JEDNOKRILNI PROZOR SA PRO ŠIRENIM RAMOM SISTEM 600



# JEDNOKRILNI PROZOR SA PRO ŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630

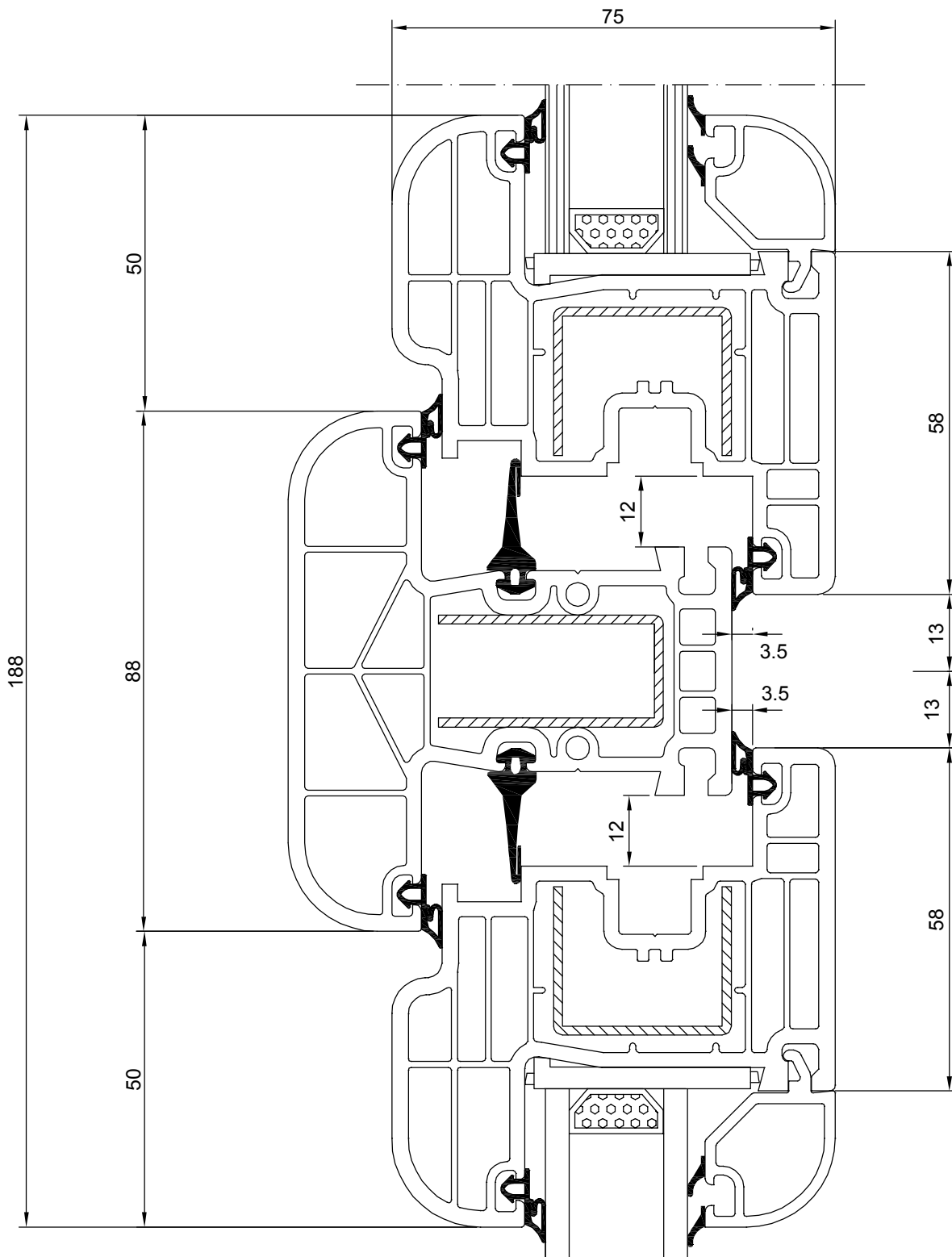


# JEDNOKRILNI PROZOR SA PRO ŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330

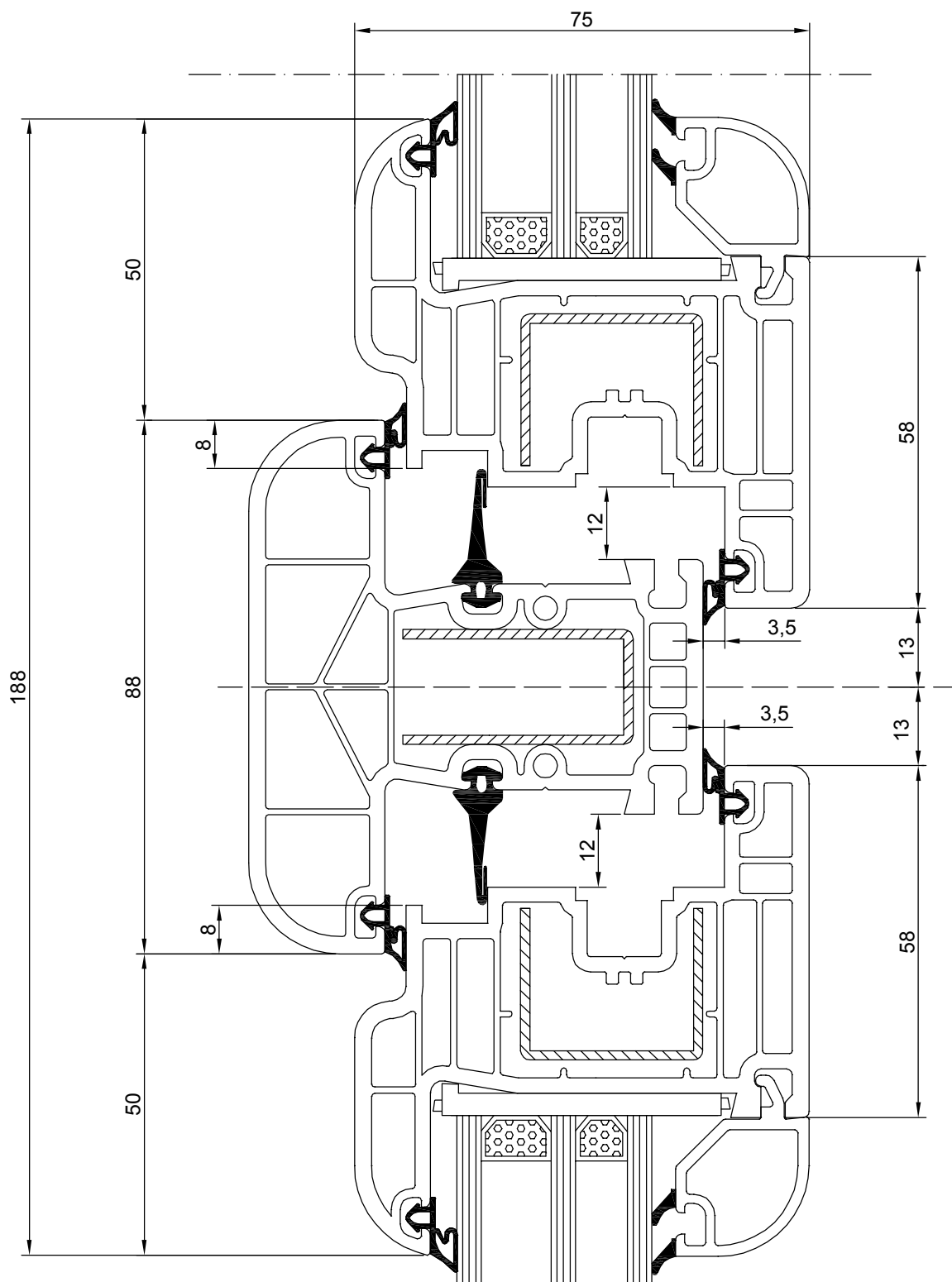




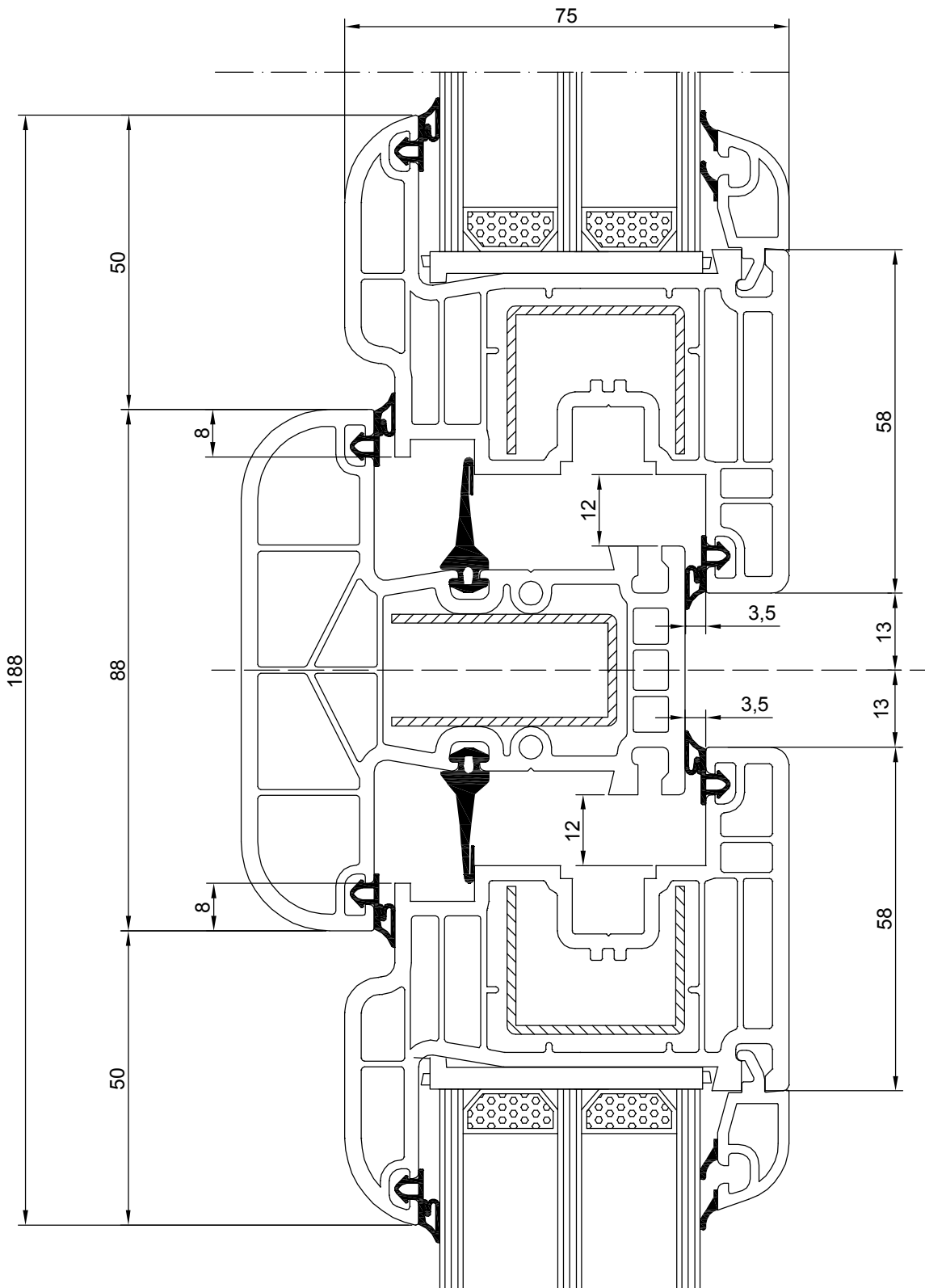
# PRESEK PROZORA KRILO-STUBOM-KRILO SISTEM 600



# PRESEK PROZORA KRILO-STUBOM-KRILO SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630

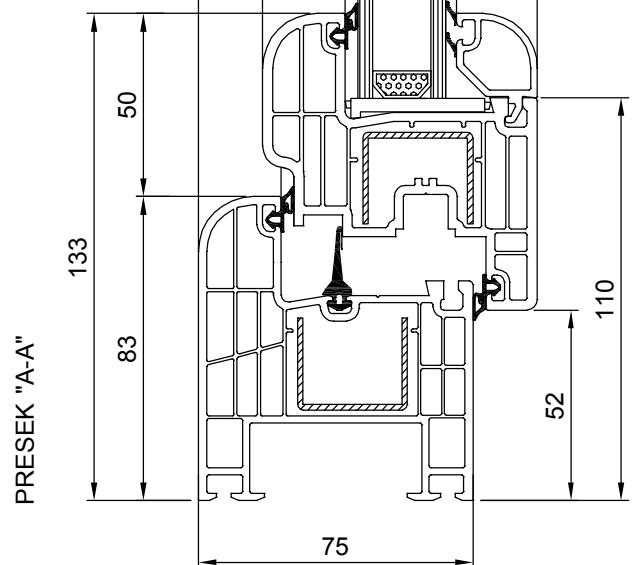
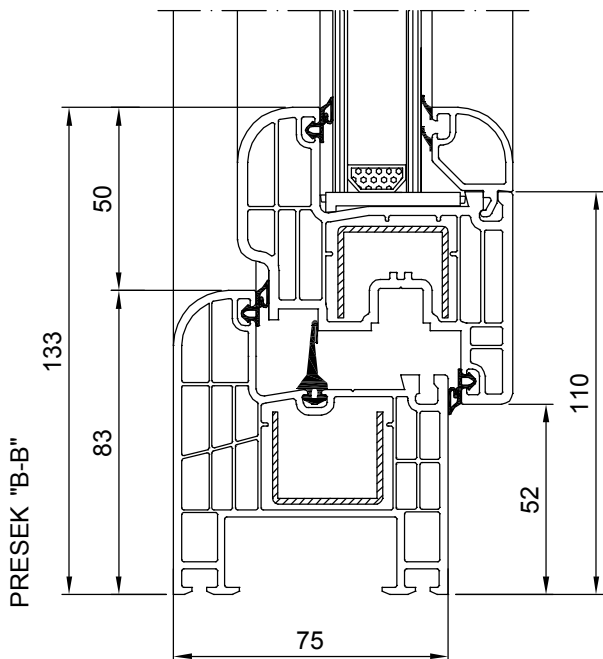
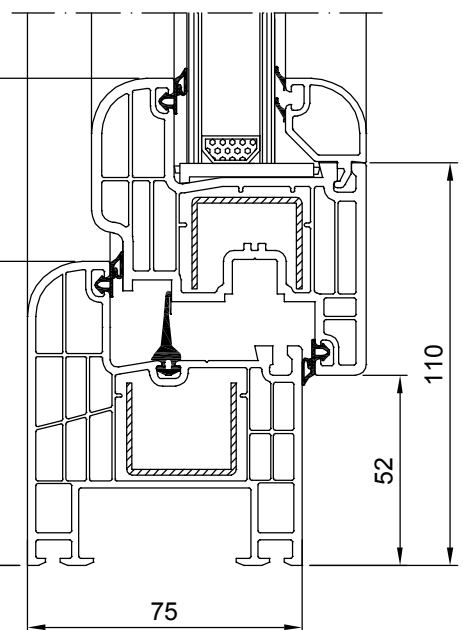
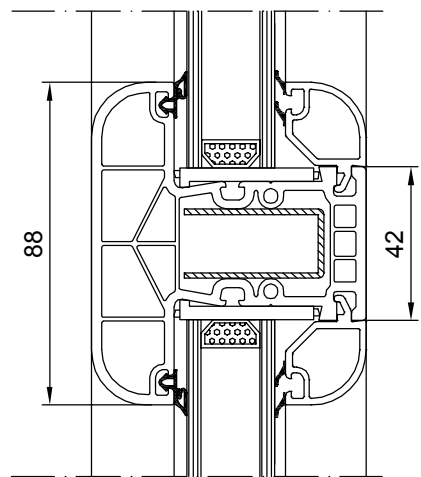
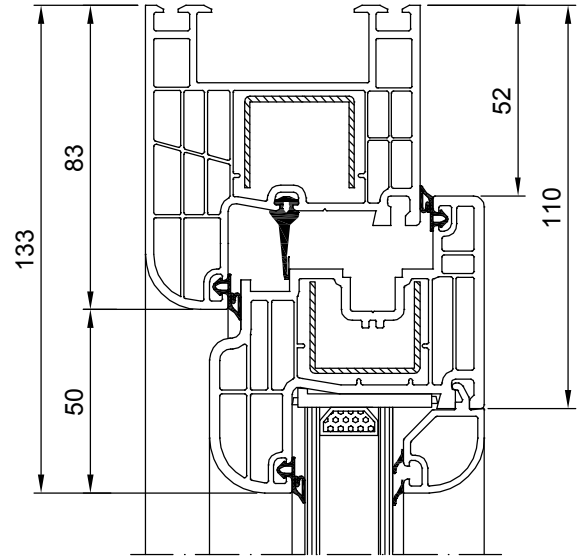
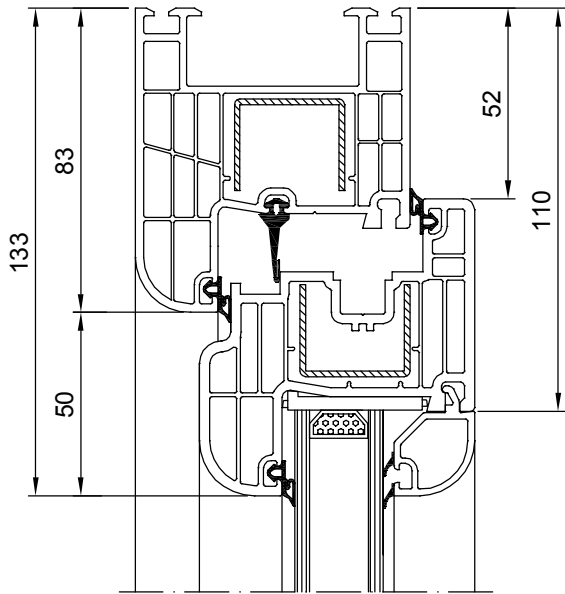
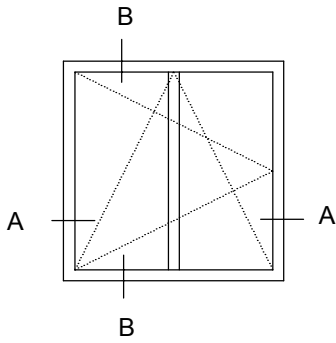


# PRESEK PROZORA KRILO-STUBOM-KRILO SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330

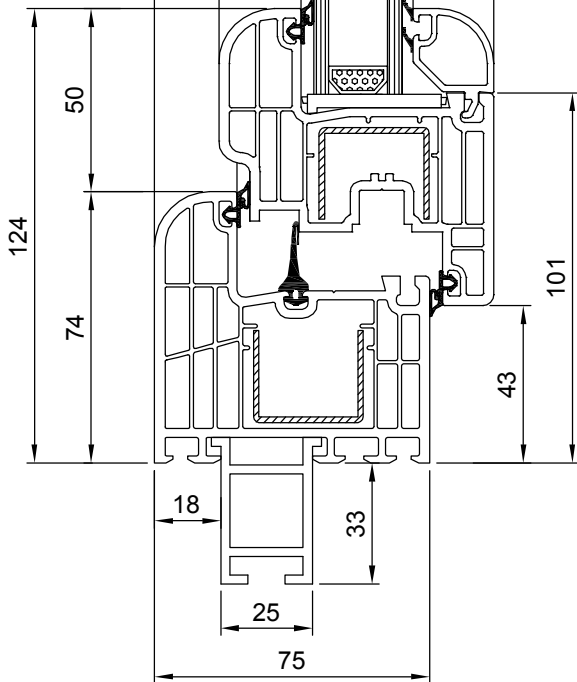
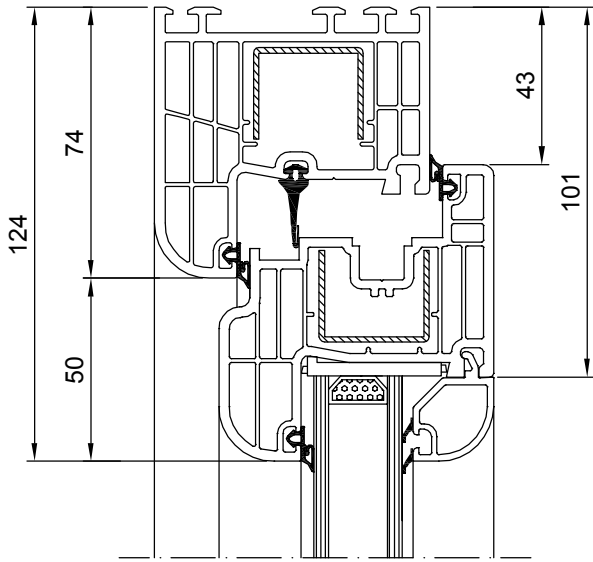
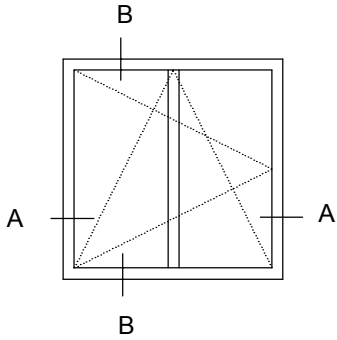




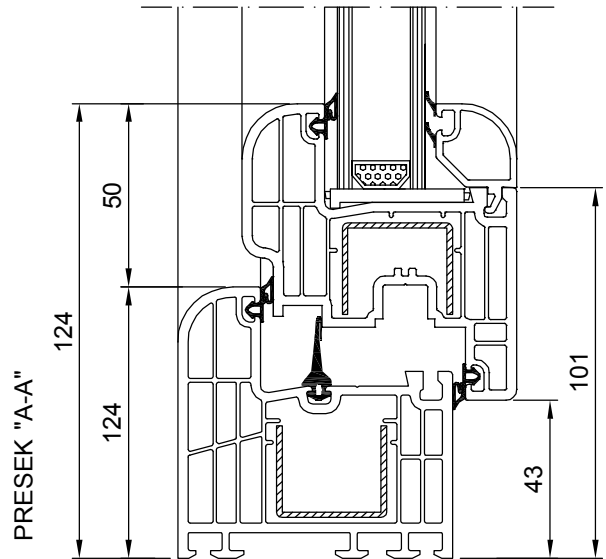
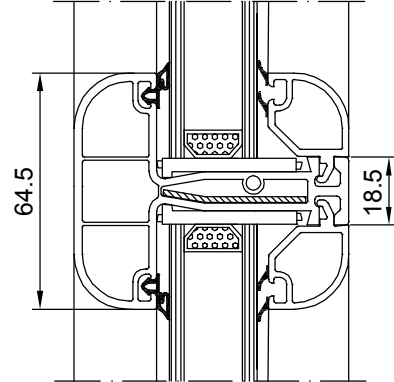
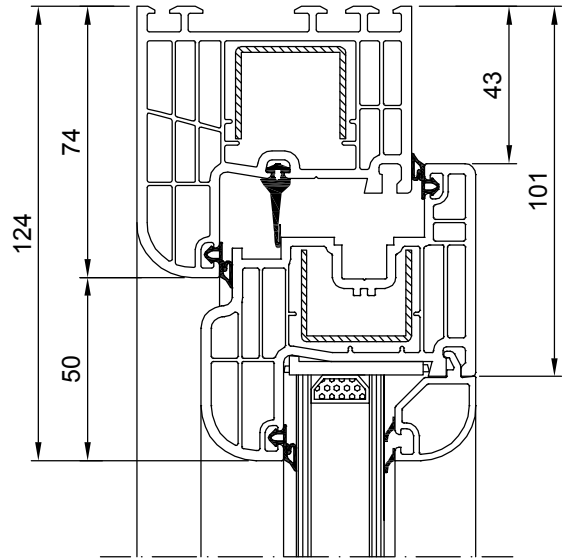
# JEDNOKRILNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600



# JEDNOKRILNI PROZOR SA STUBOM 622 SISTEM 600

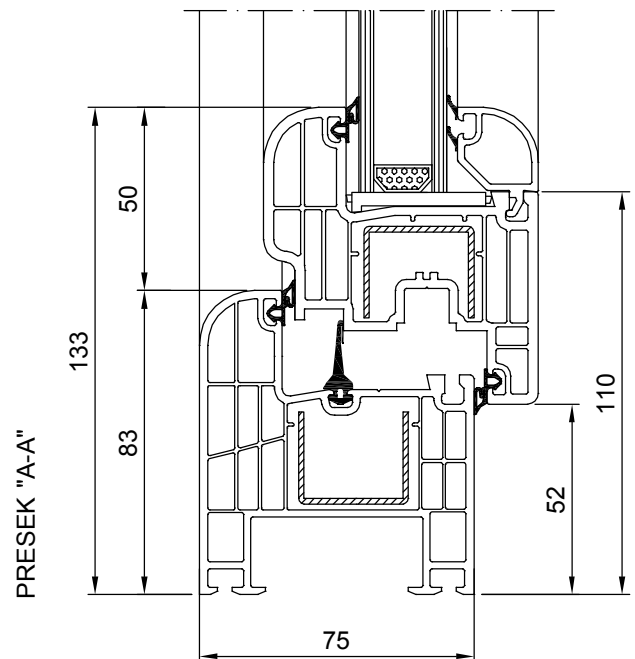
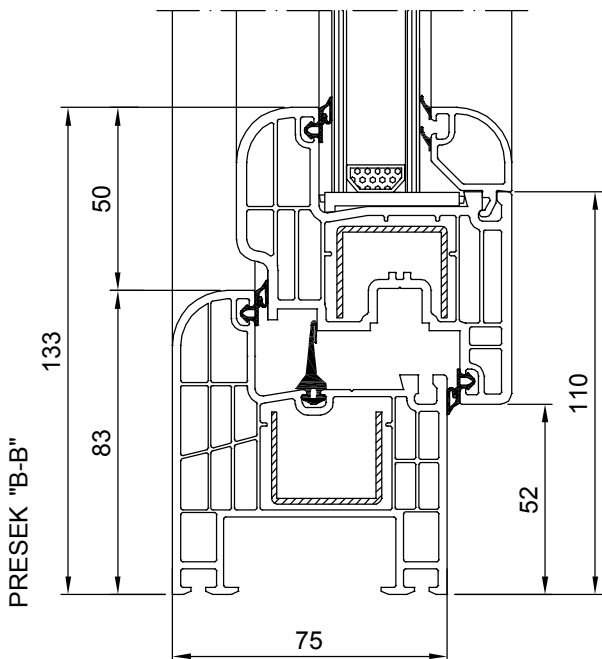
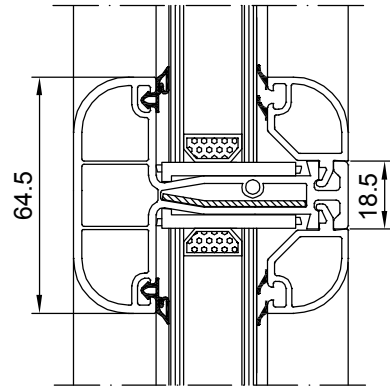
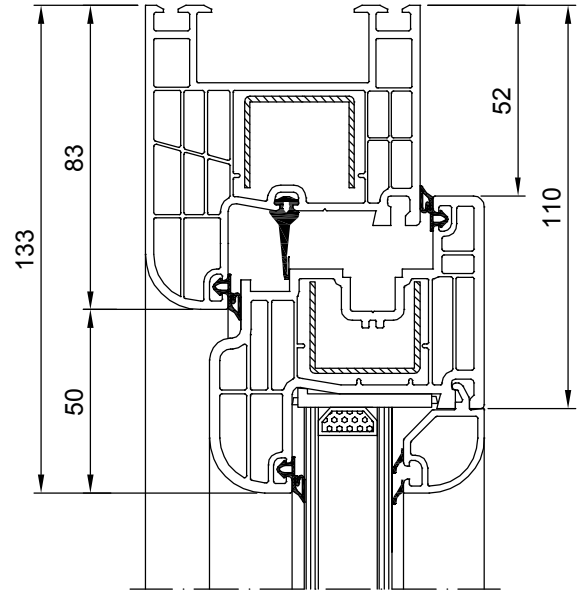
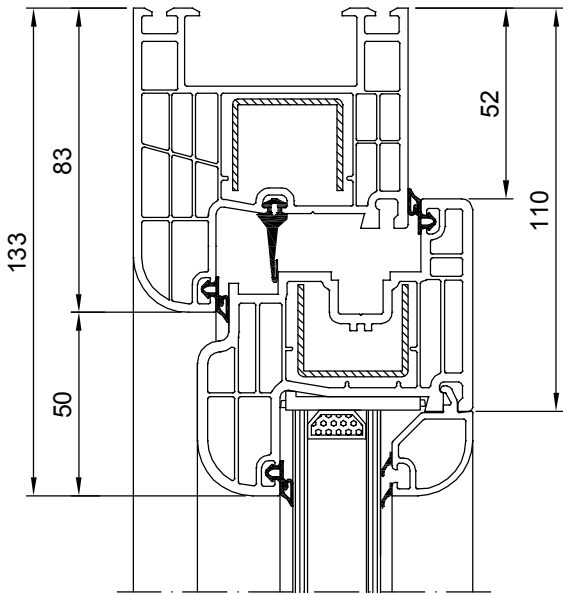
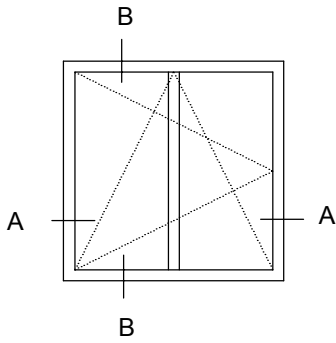


PRESEK "B-B"

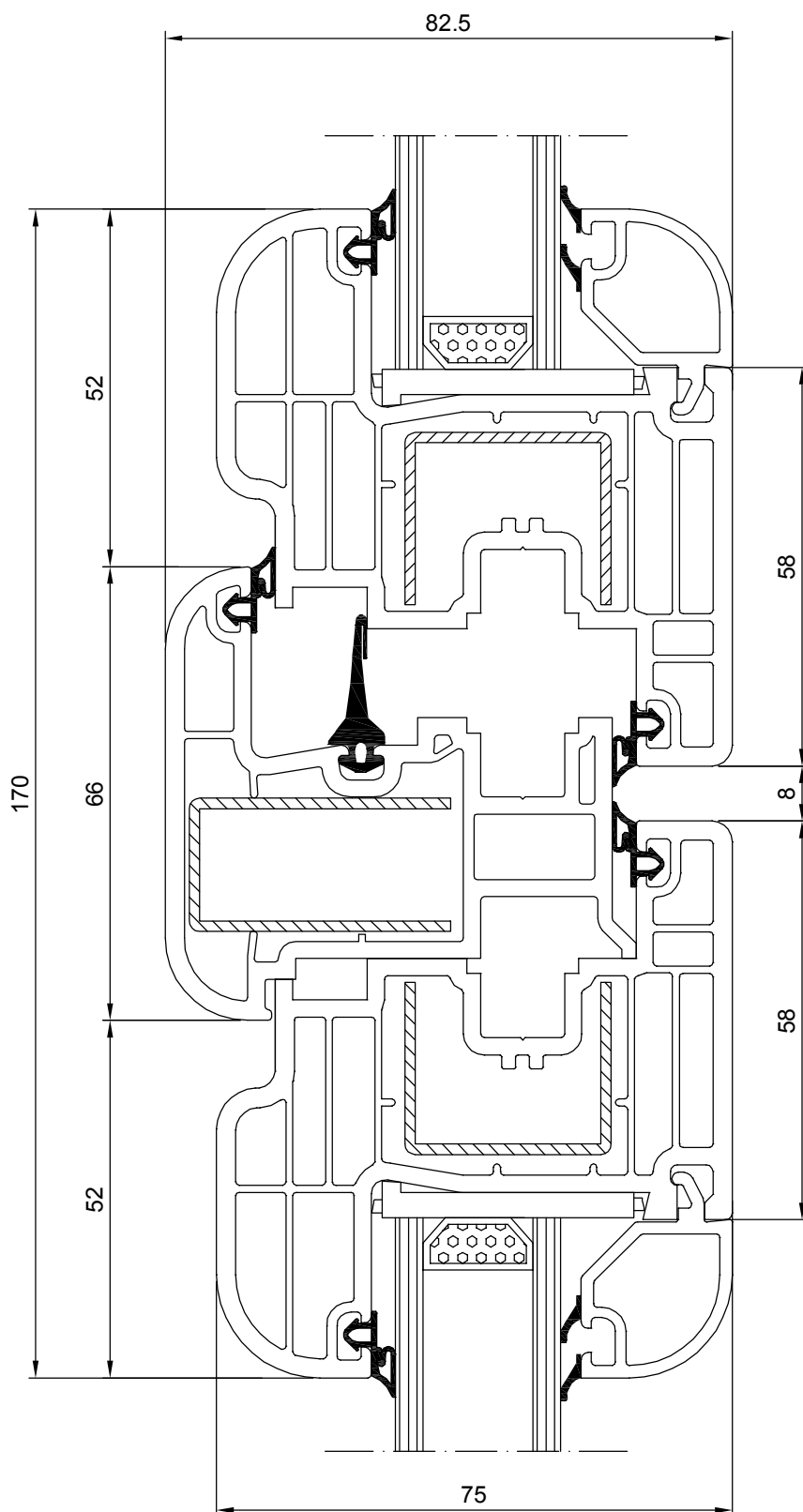


PRESEK "A-A"

# JEDNOKRILNI PROZOR SA STUBOM 622 I PROŠIRENIM RAMOM SISTEM 600

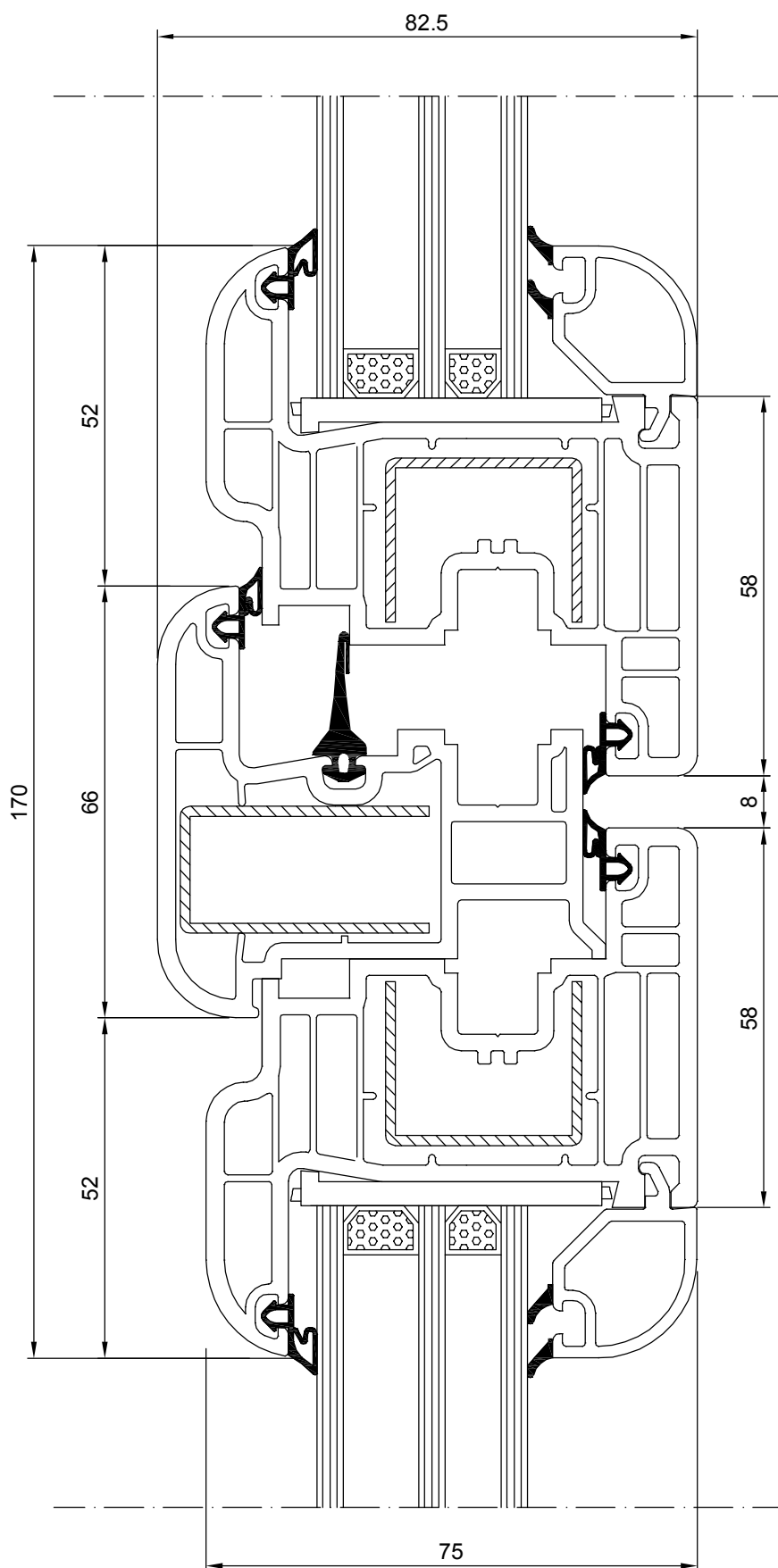


PRESEK PROZORA  
KRILO-PREKLOP-KRILO  
SISTEM 600

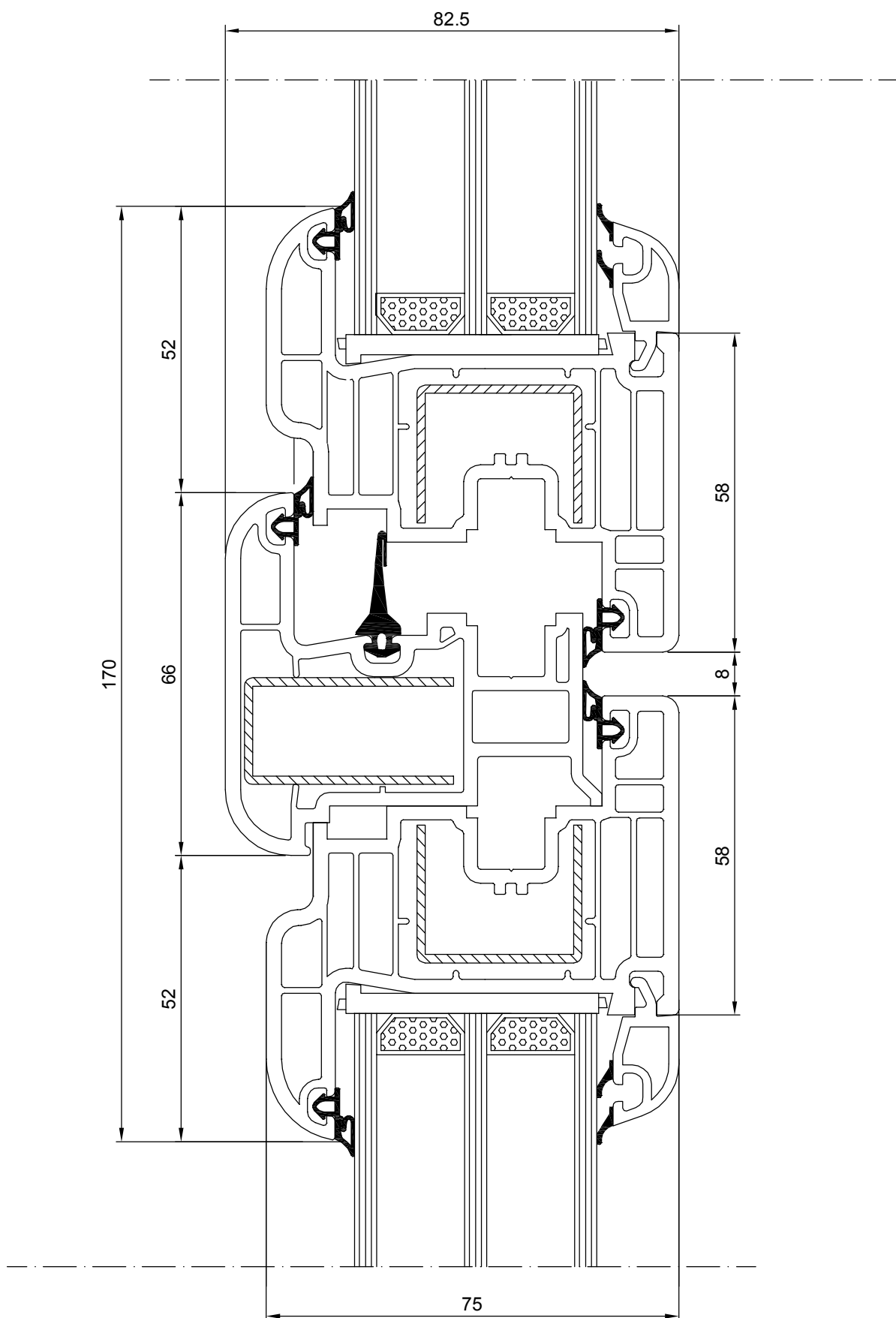




# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 600 SA TROSLOJNIM STAKLOM 613-630



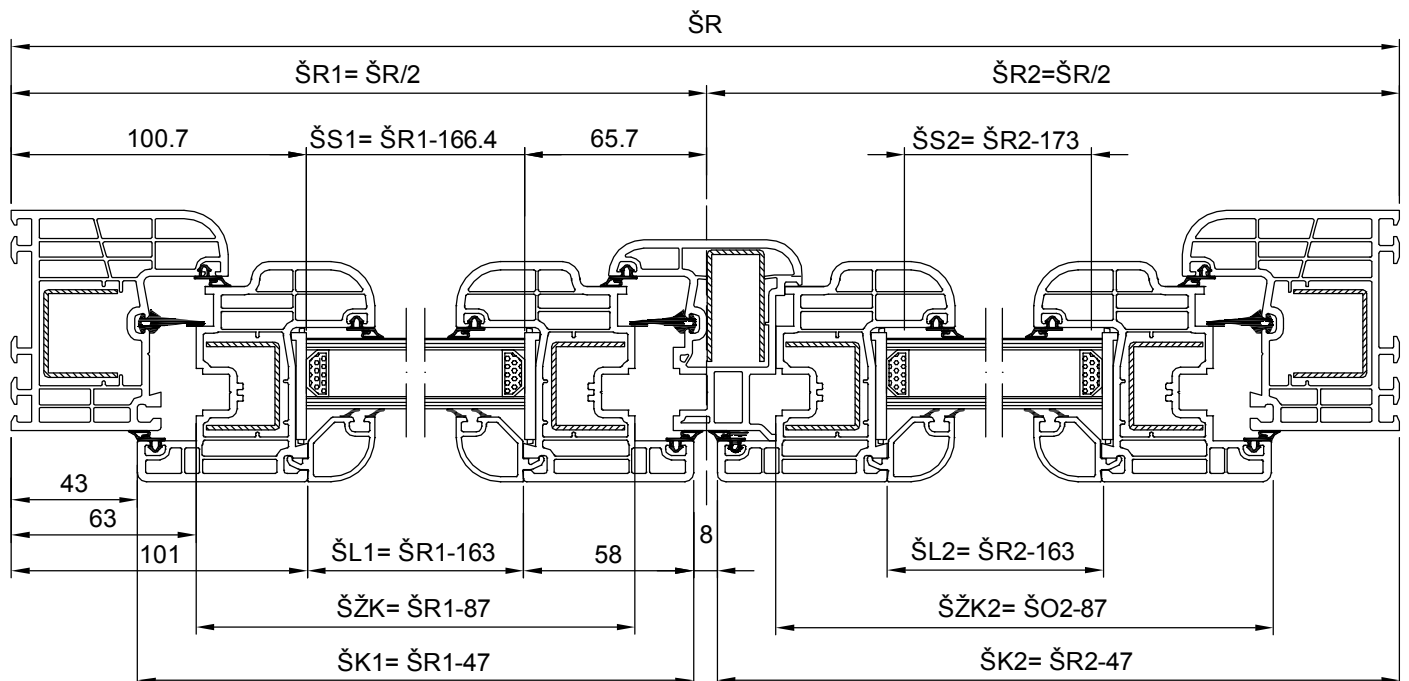
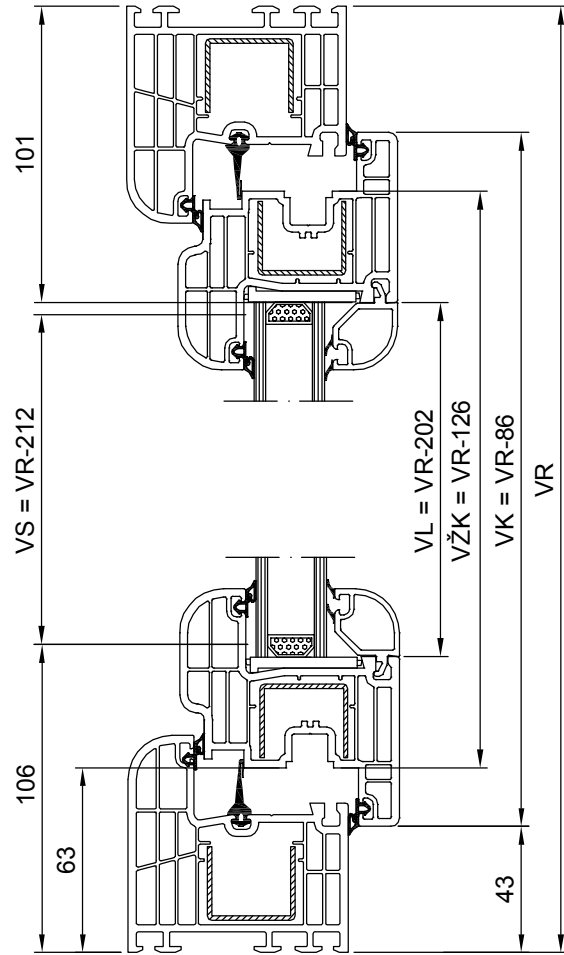
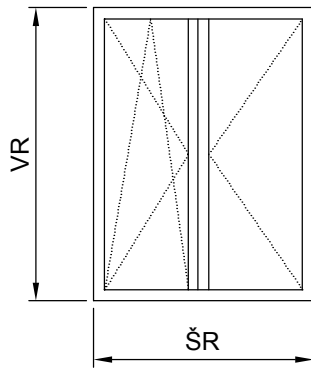
# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330



# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 600

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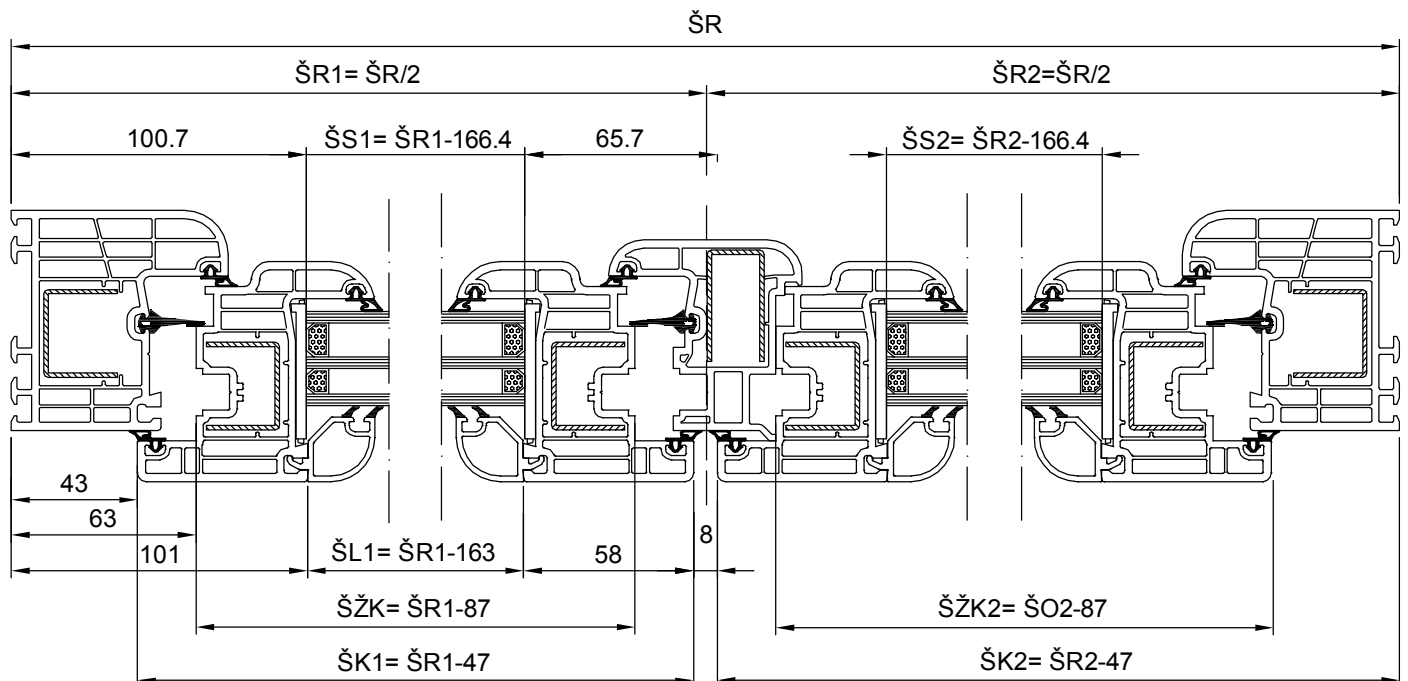
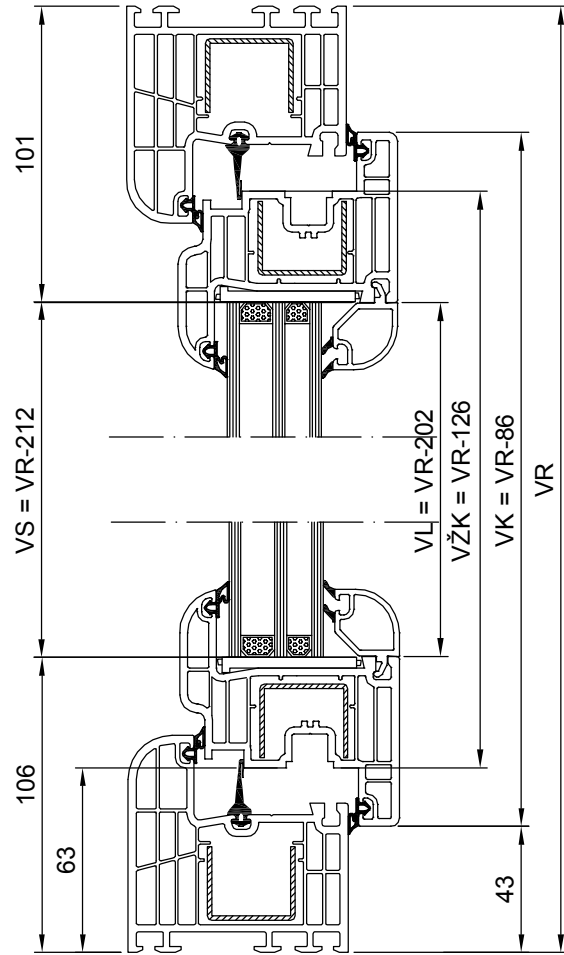
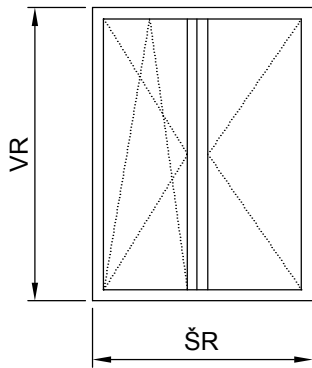
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 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 600 SA TROSTRUKIM STAKLOM 613\_630

## LEGENDA

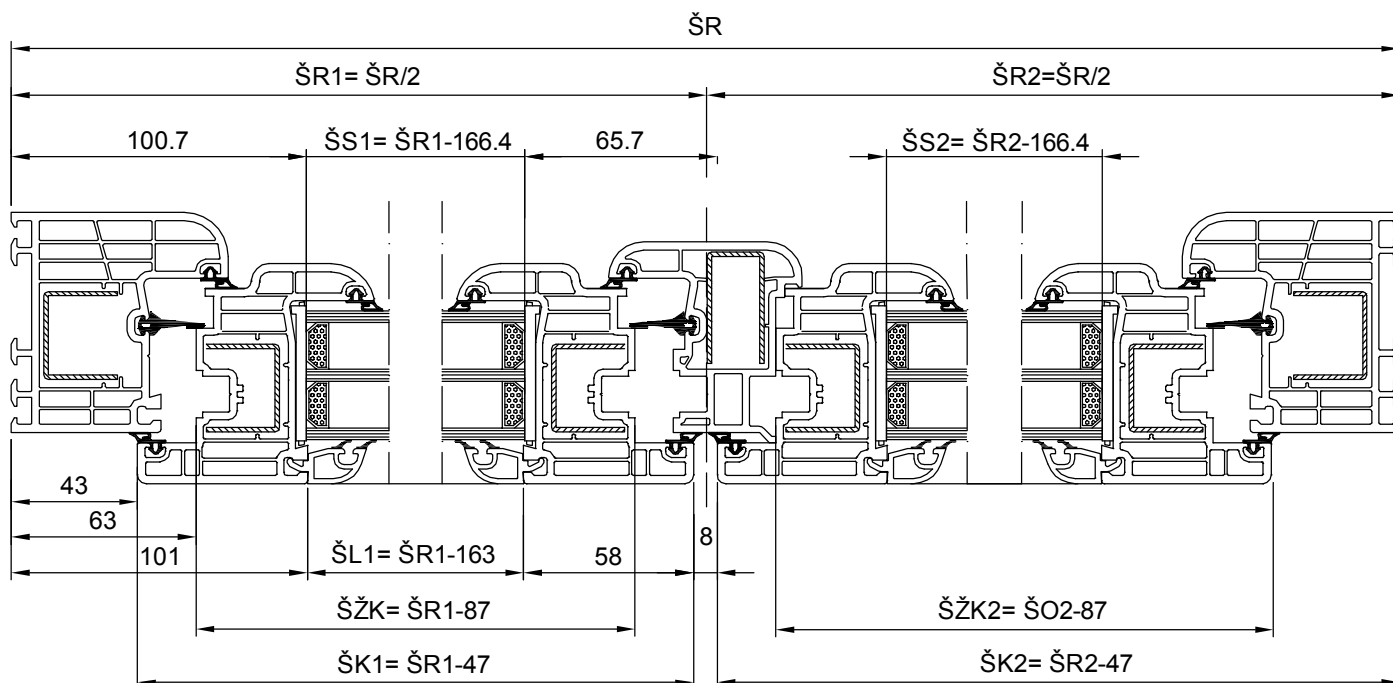
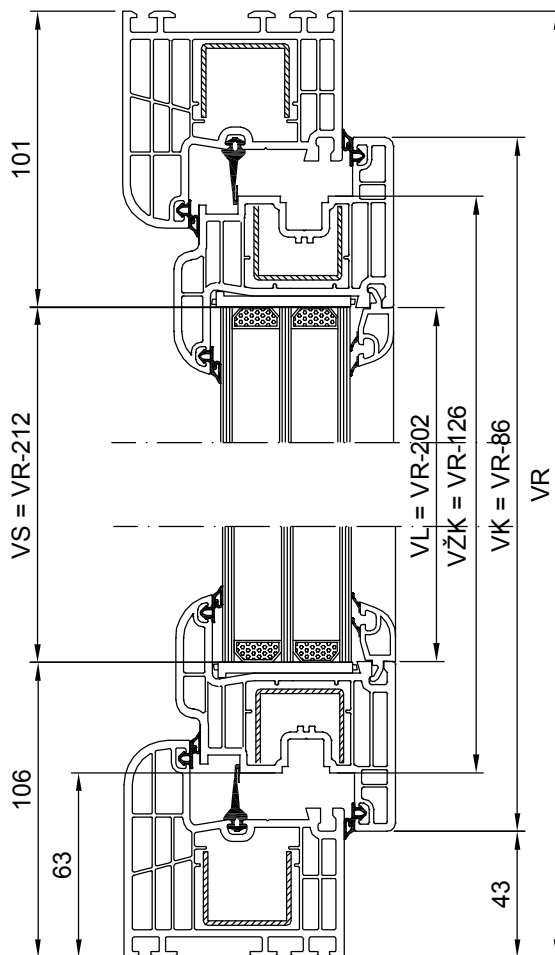
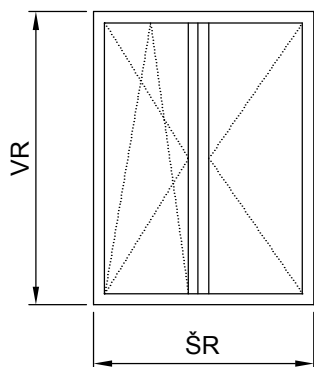
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 VL=VISINA LAJSNE  
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# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 600 SA TROSTRUKIM STAKLOM 613\_330

## LEGENDA

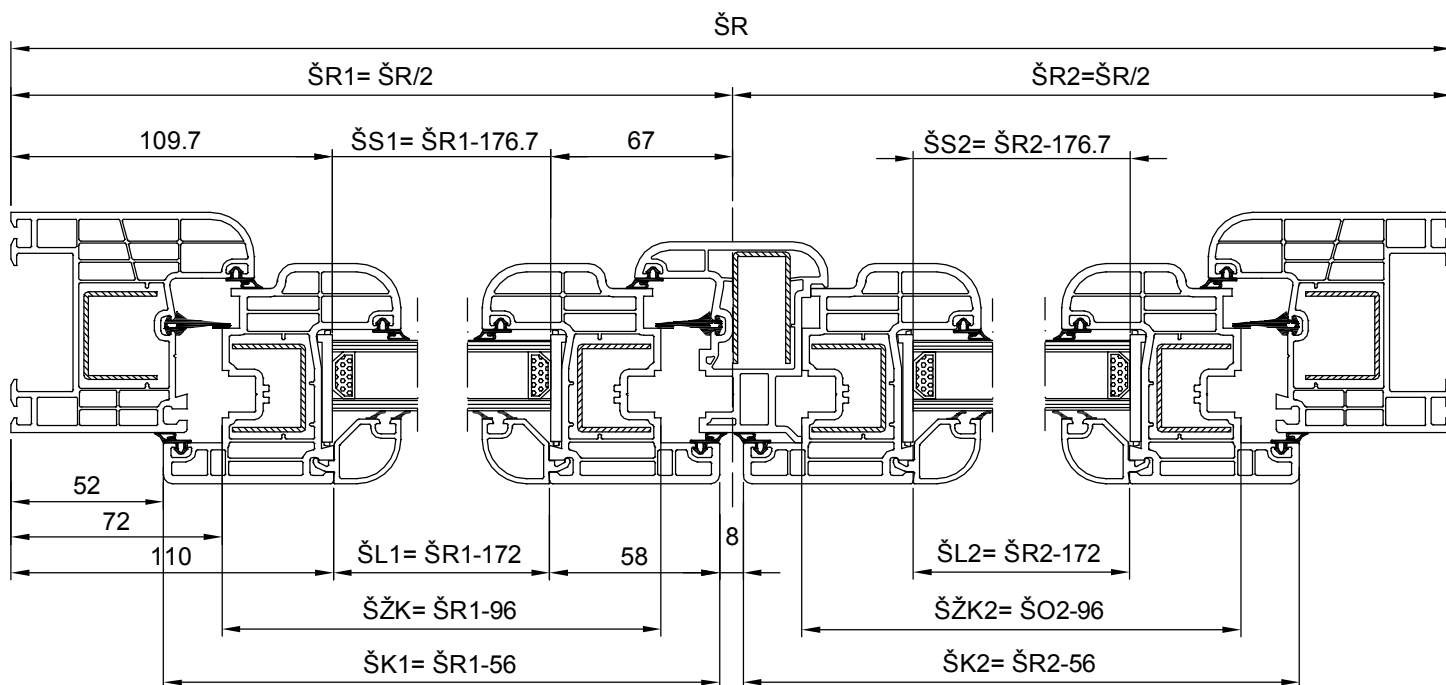
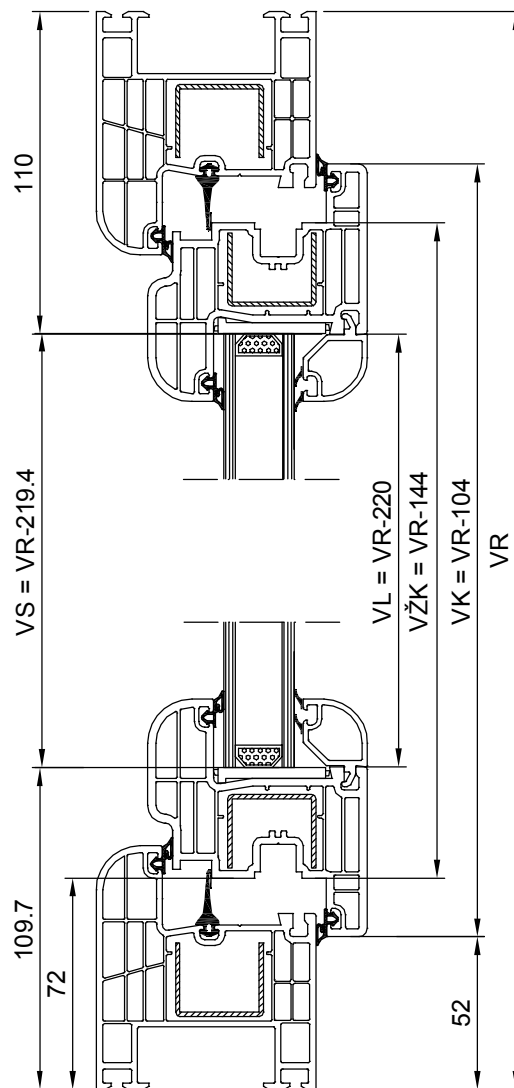
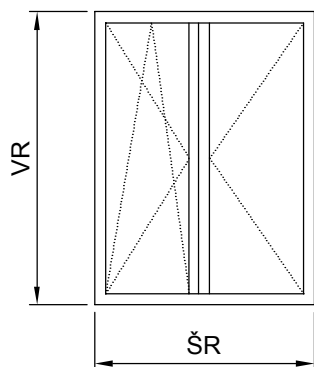
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 VŽK= VISINA ŽLJRBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
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 VS= VISINA STAKLA



# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENIM RAMOM RAMOM SISTEM 600

## LEGENDA

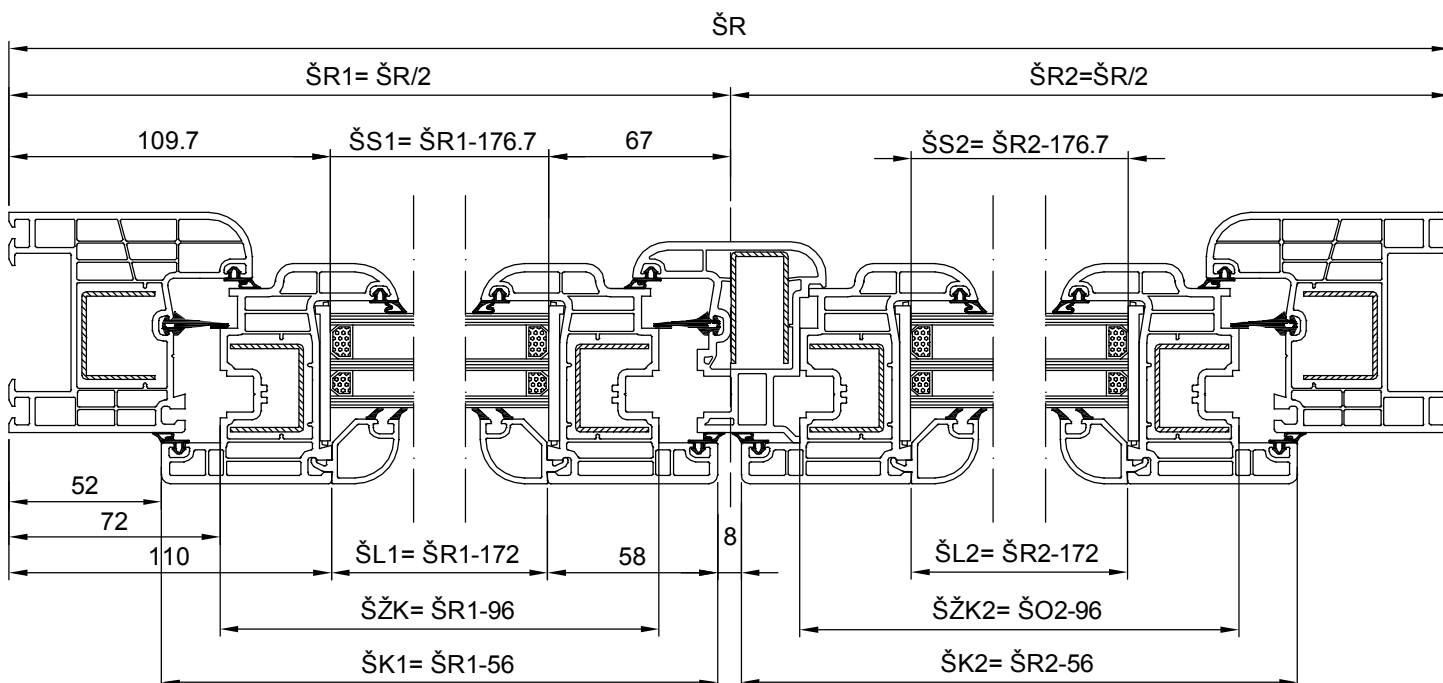
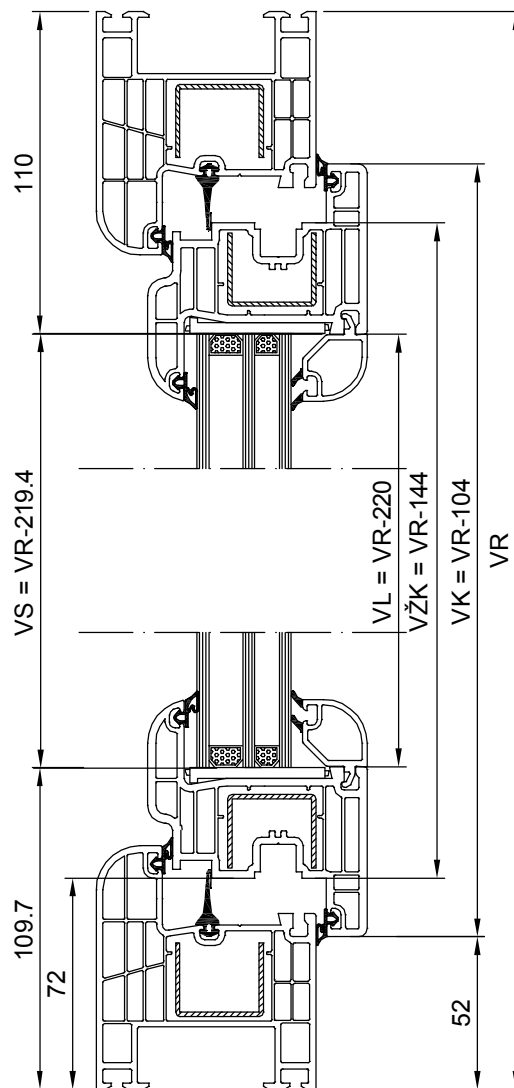
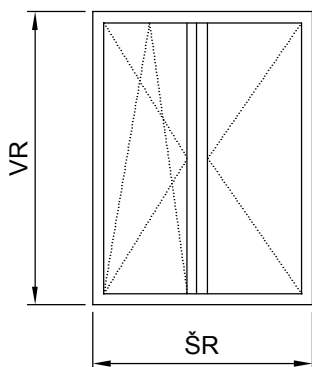
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 ŠS= ŠIRINA STAKLA  
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# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENI RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630

## LEGENDA

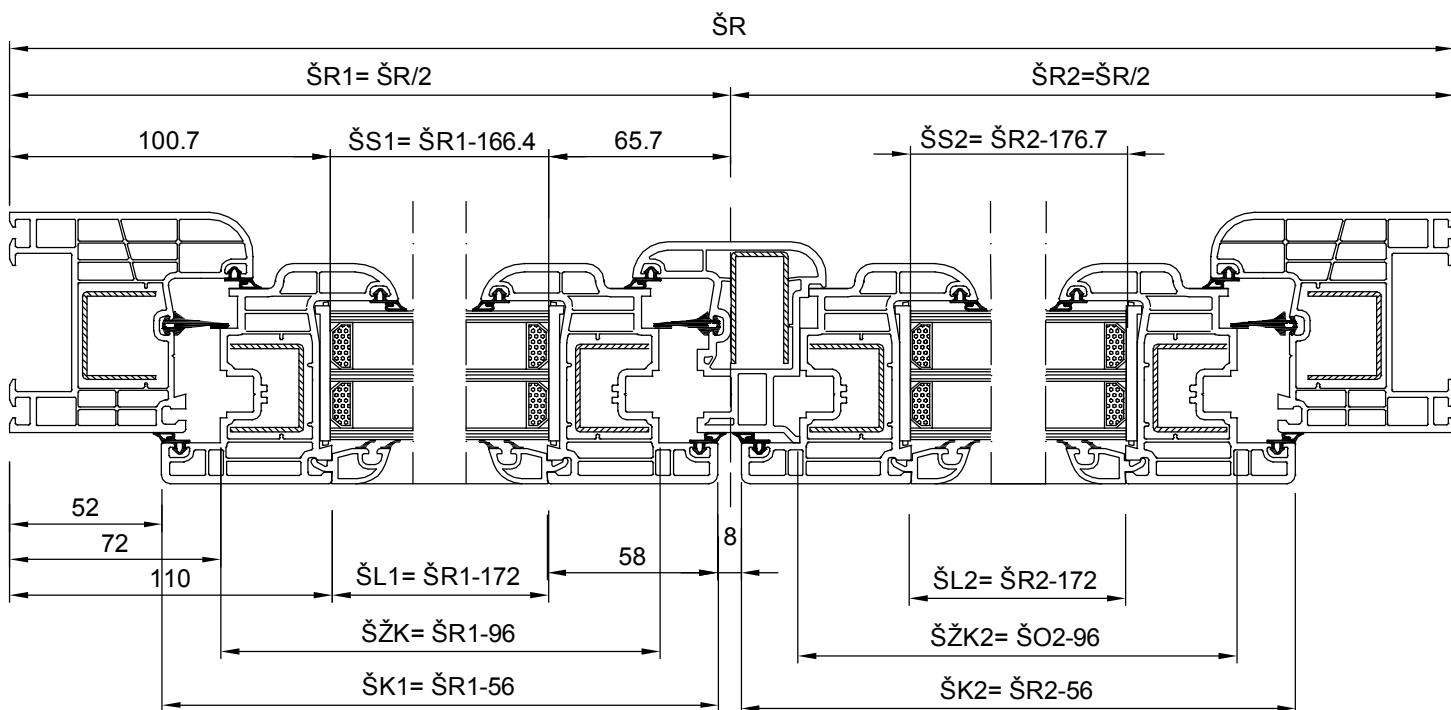
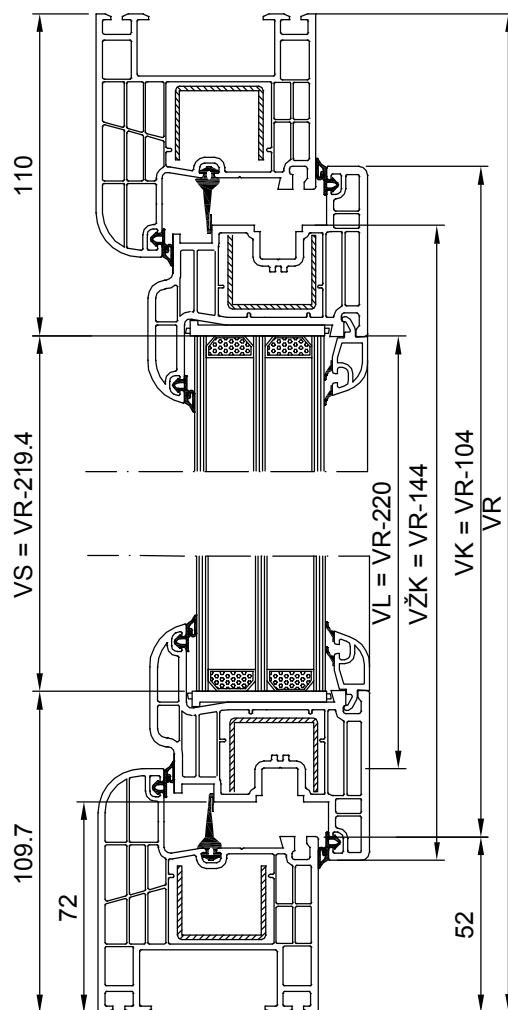
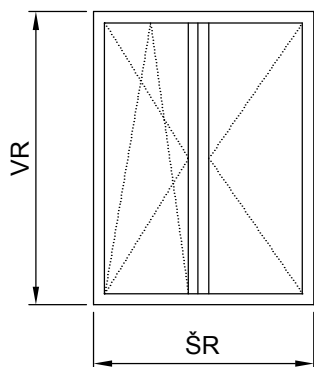
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 VŽK= VISINA ŽLJRBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
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# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENI RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330

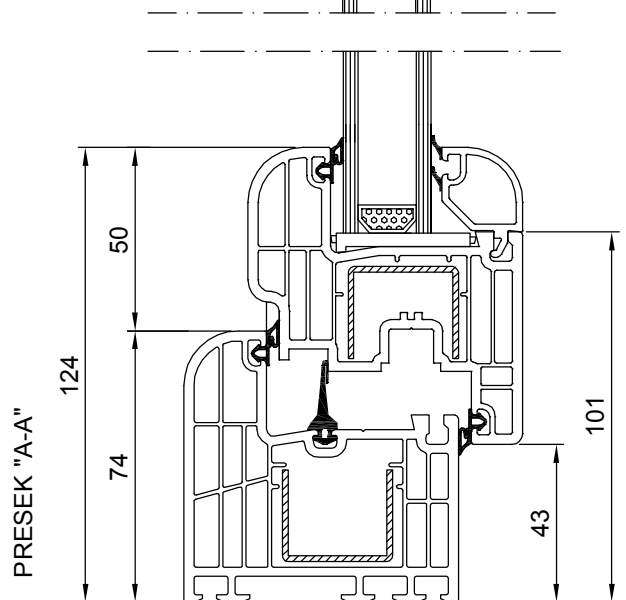
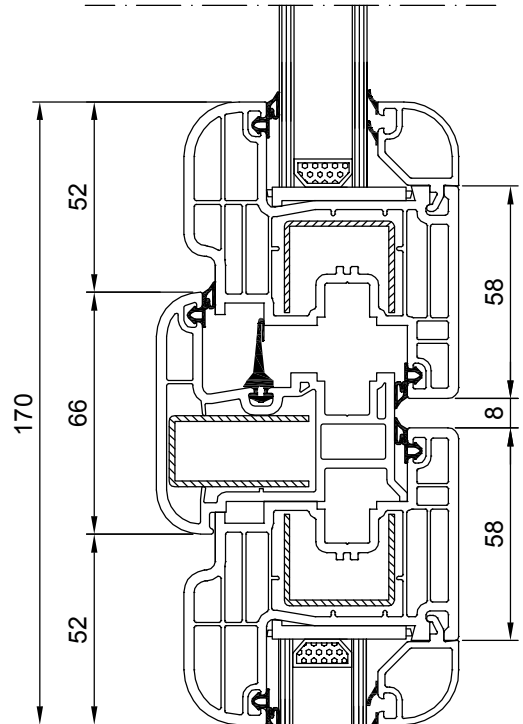
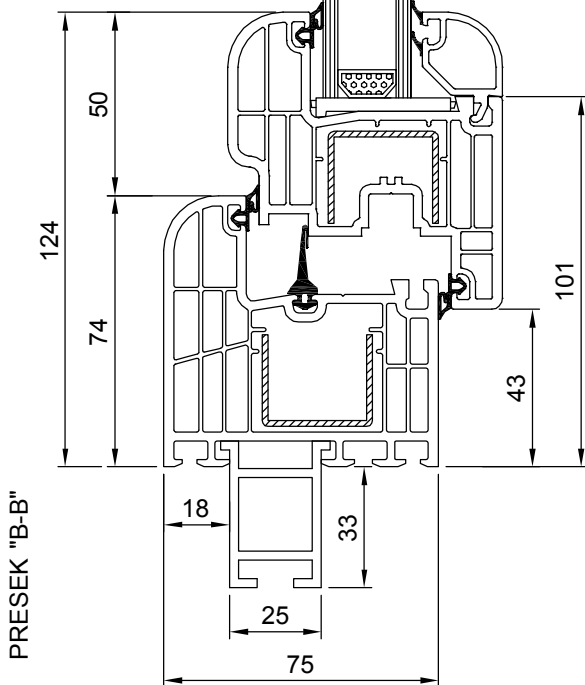
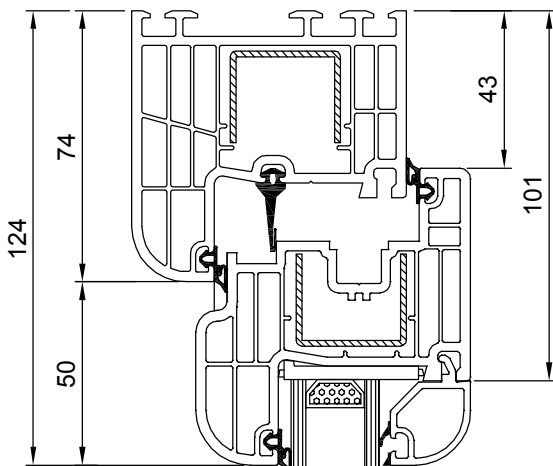
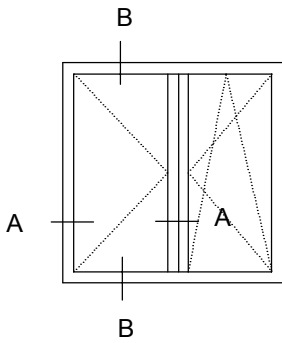
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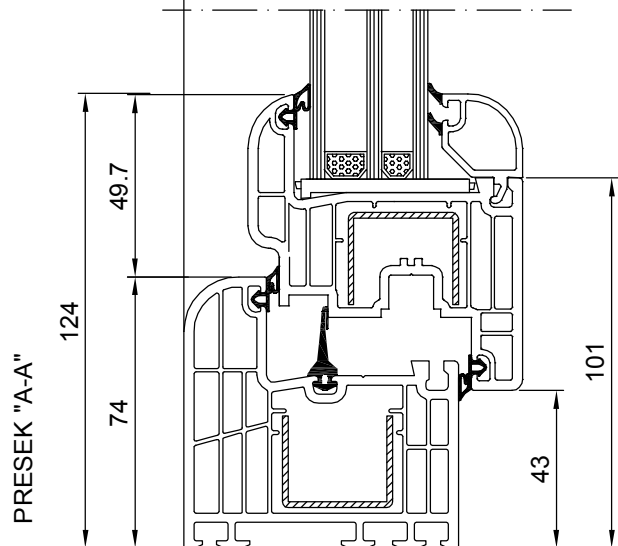
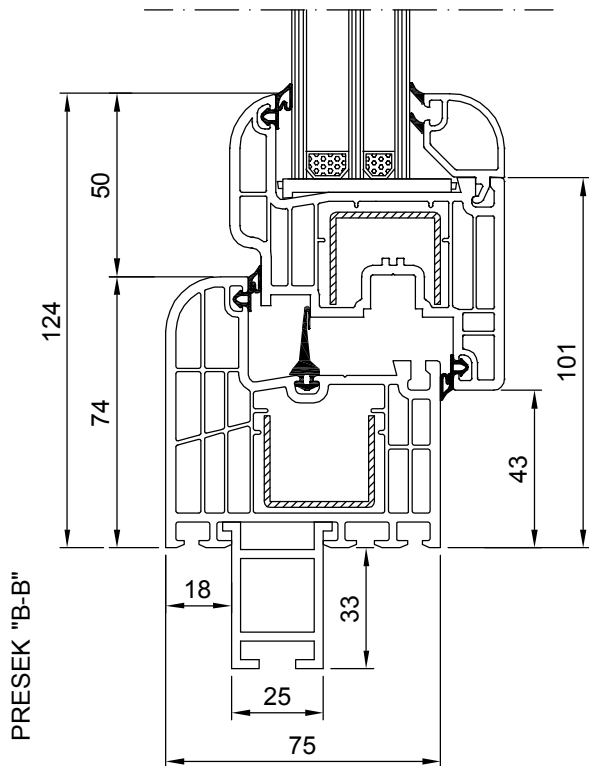
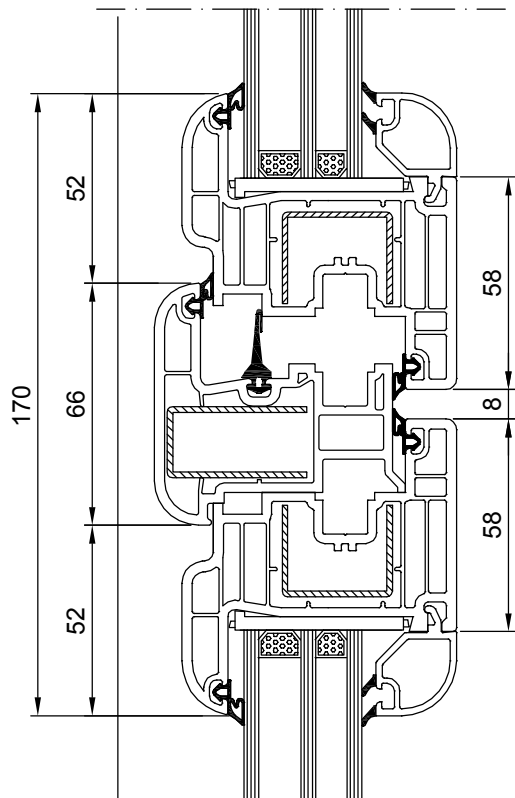
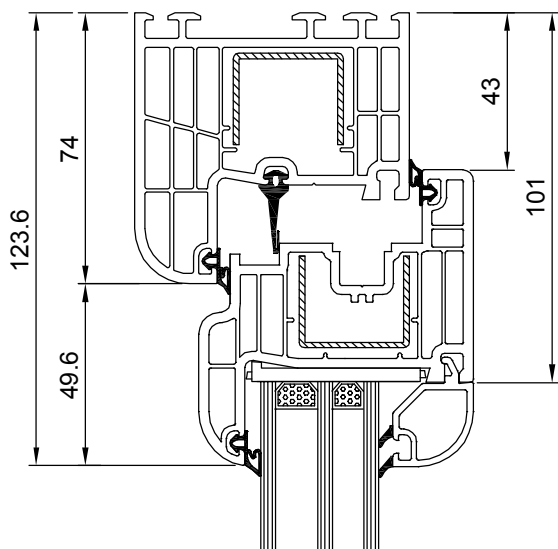
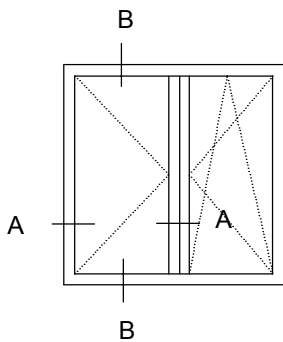




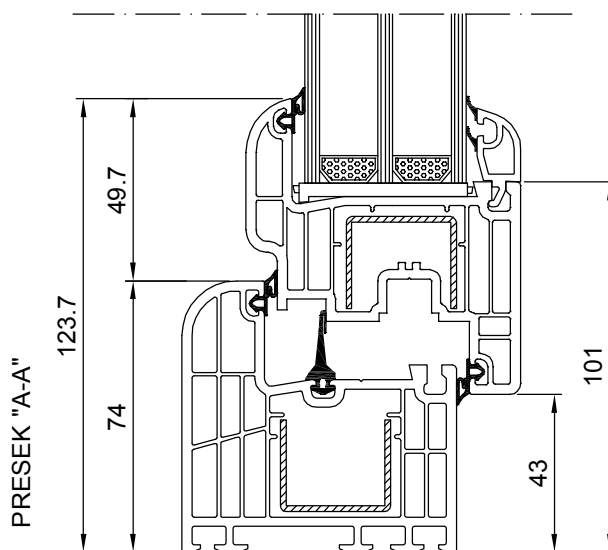
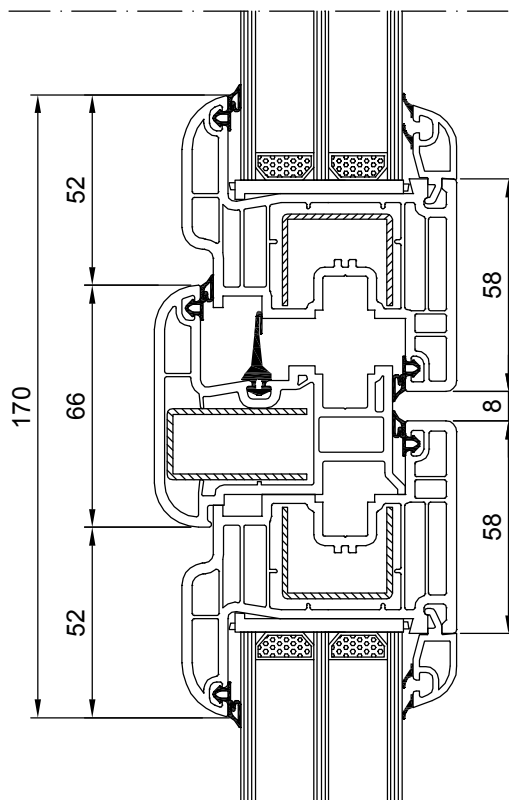
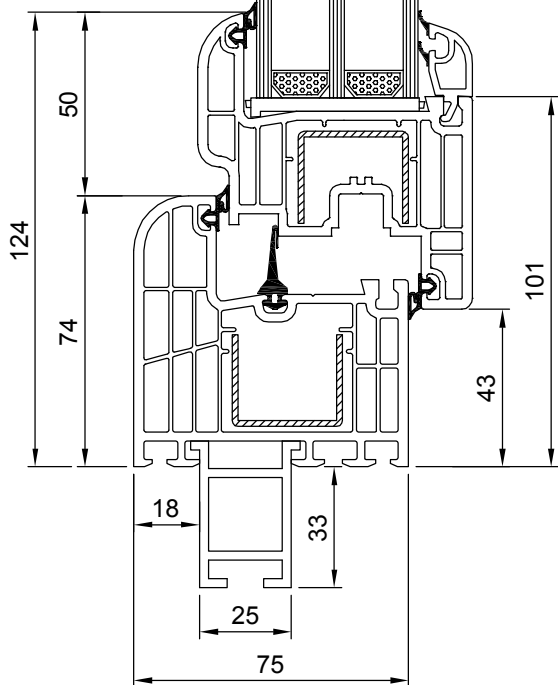
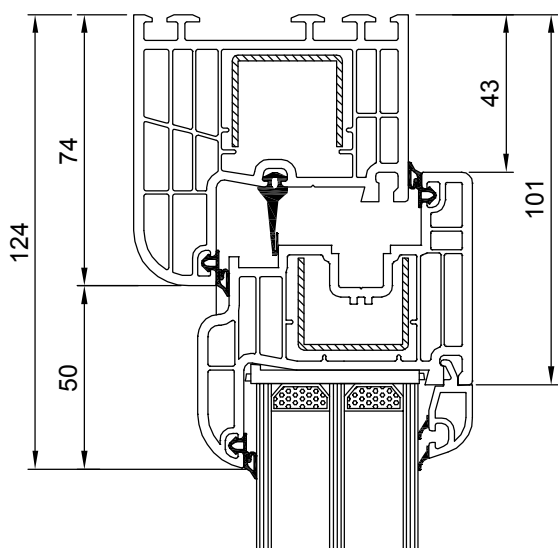
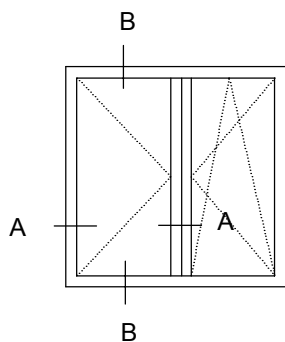
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 600



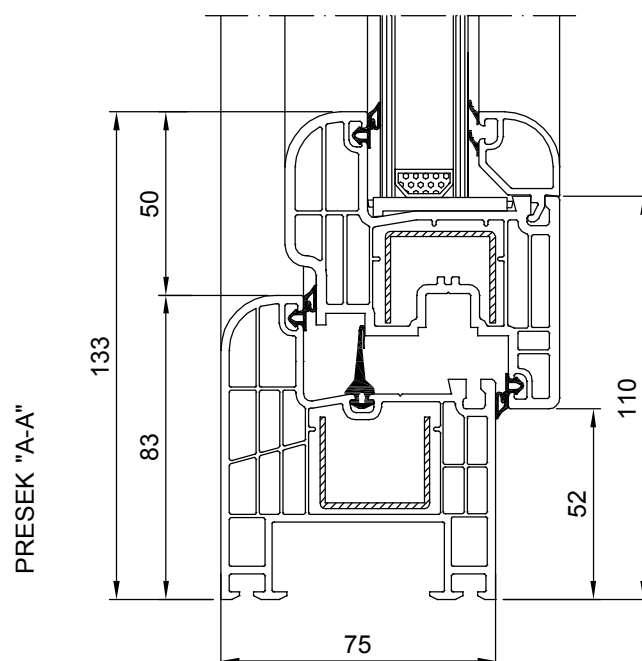
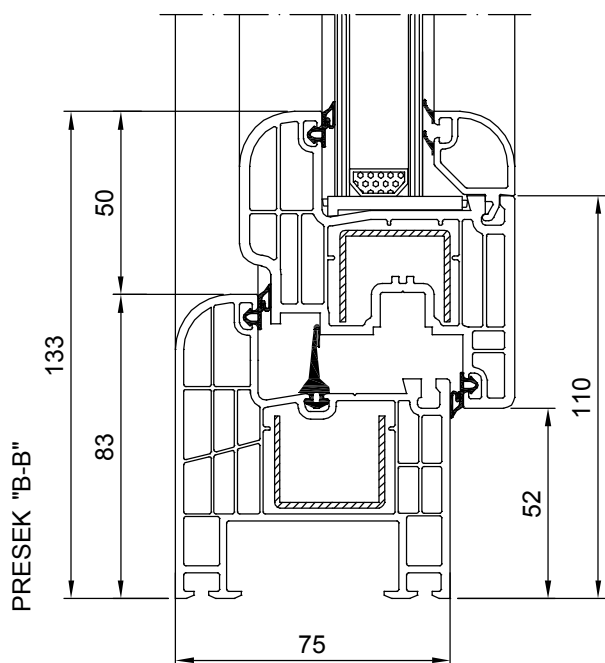
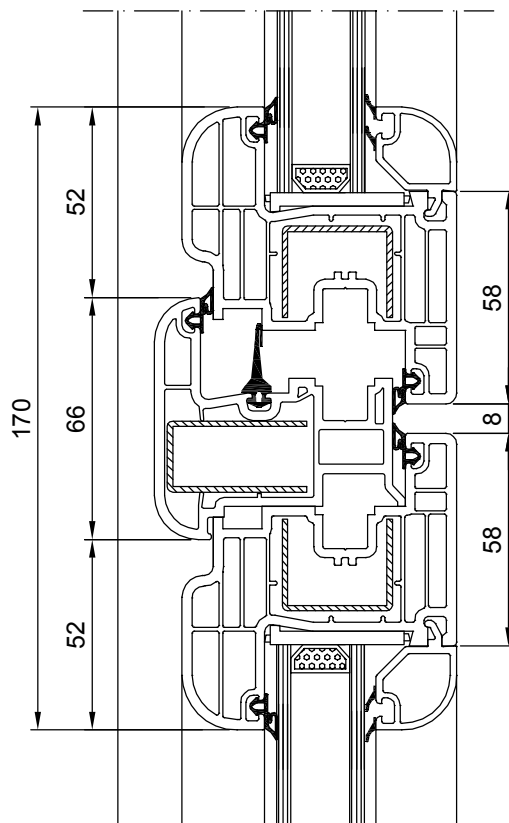
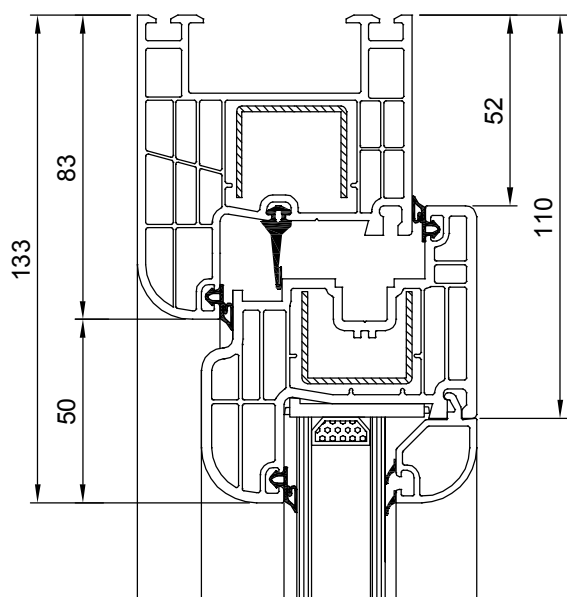
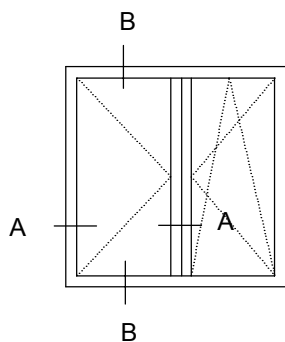
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630



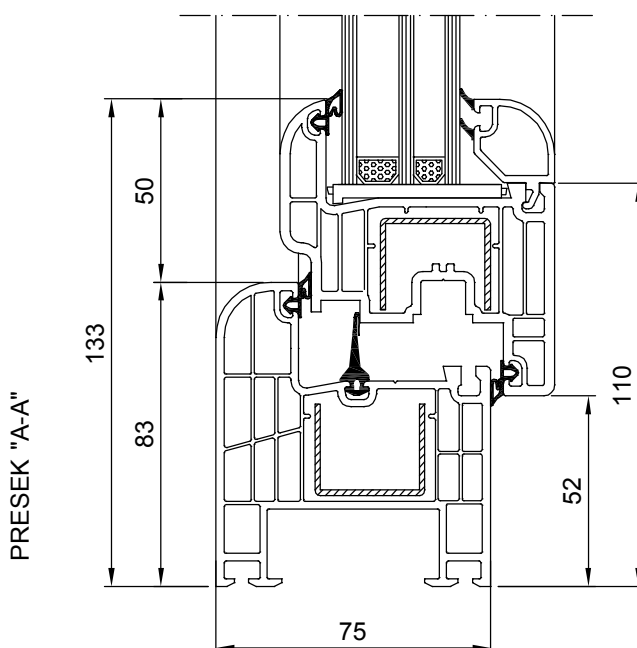
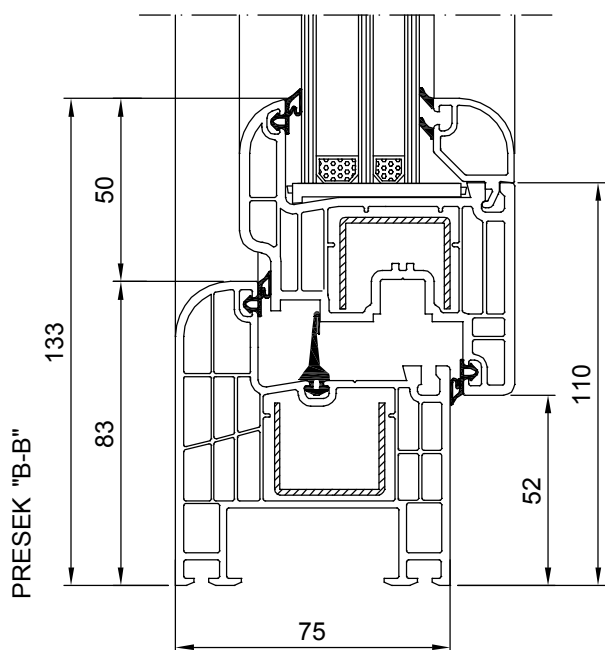
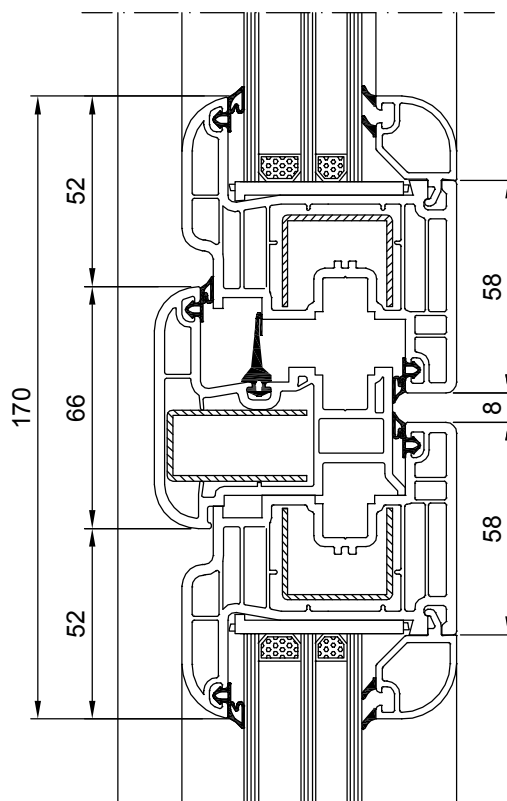
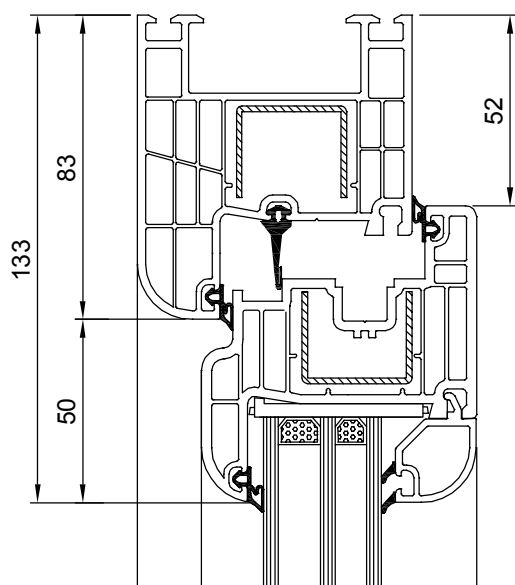
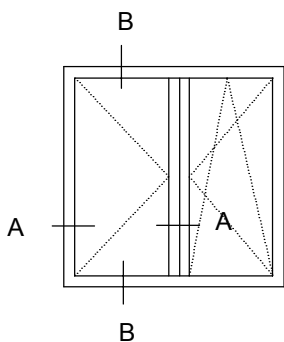
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330



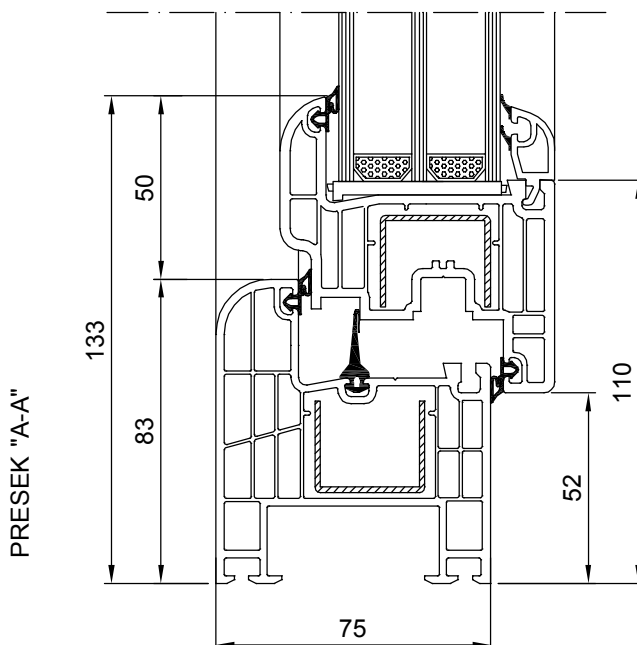
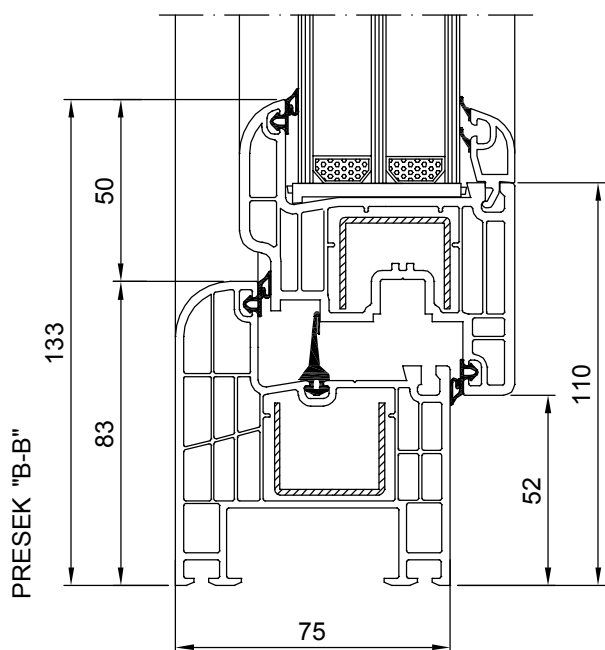
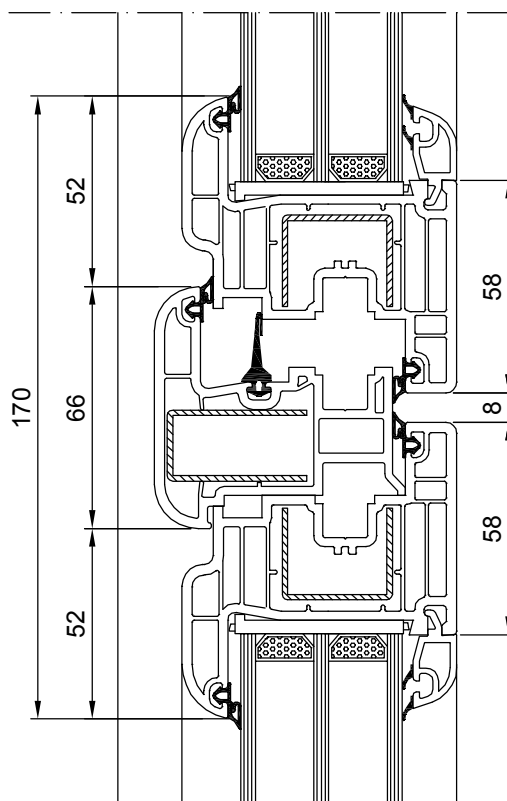
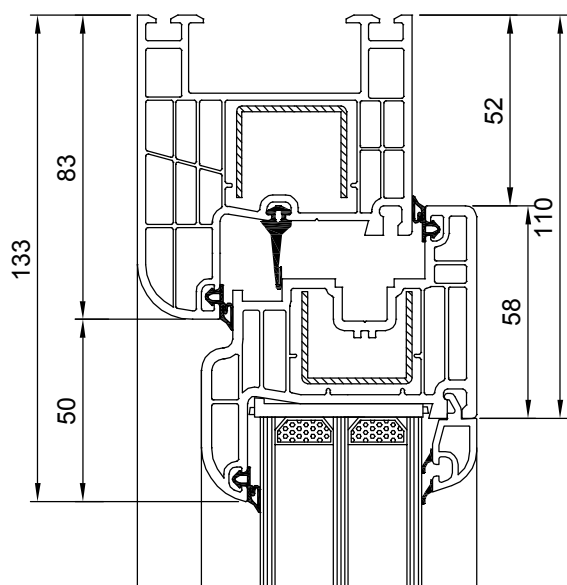
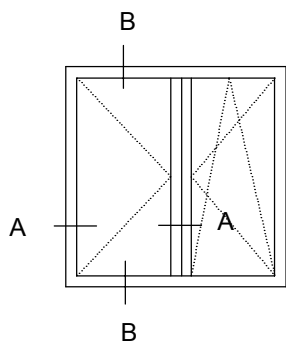
# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENIM RAMOM SISTEM 600



# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630



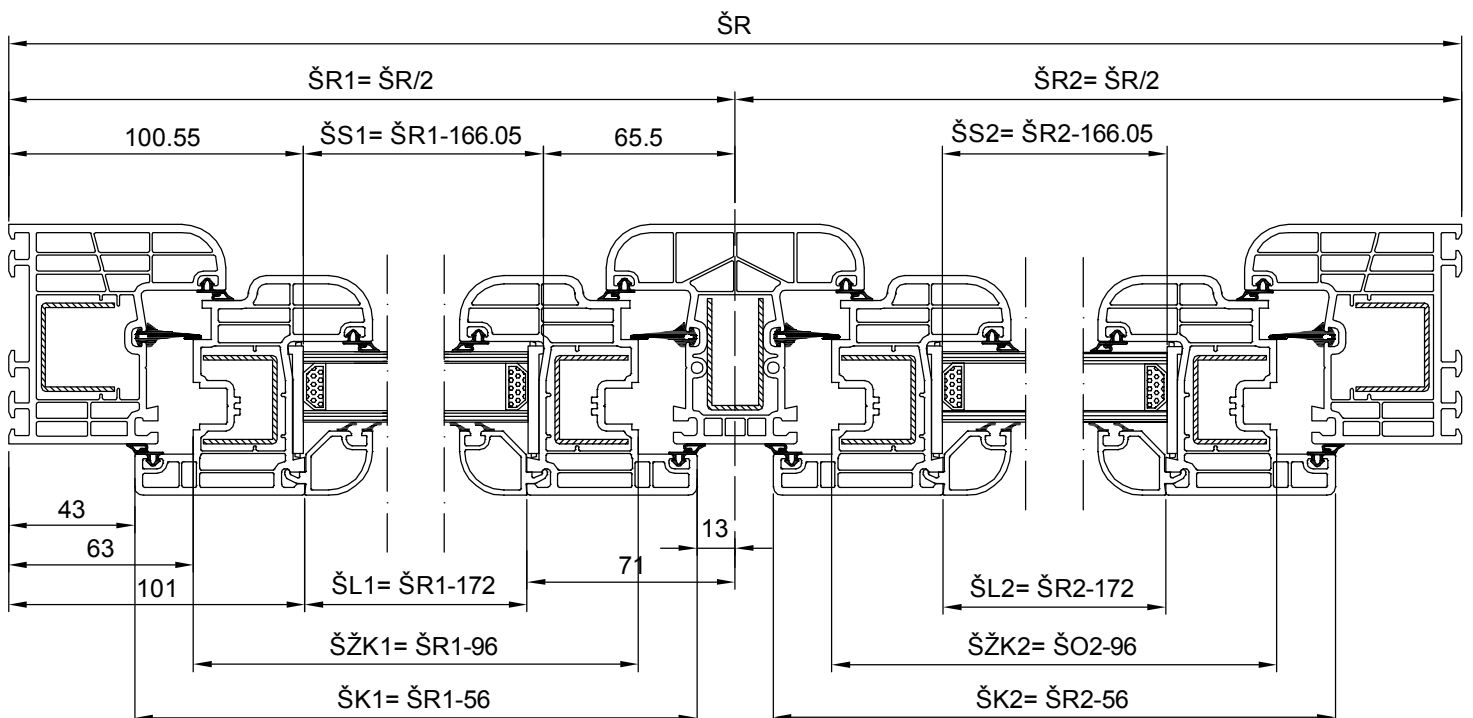
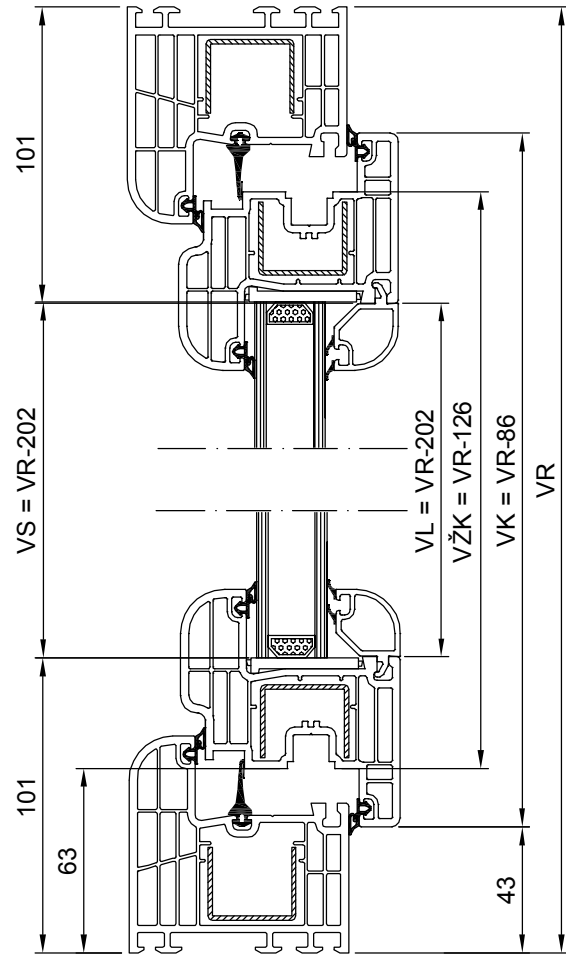
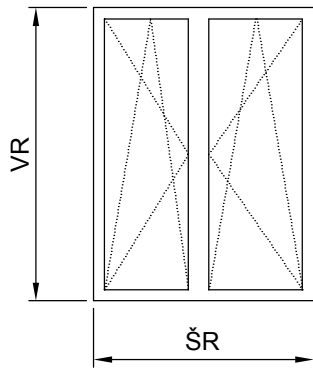
# DVOKRILNI PROZOR SA PREKLOPOM I PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330



# DVOKRILNI PROZOR SA STUBOM SISTEM 600

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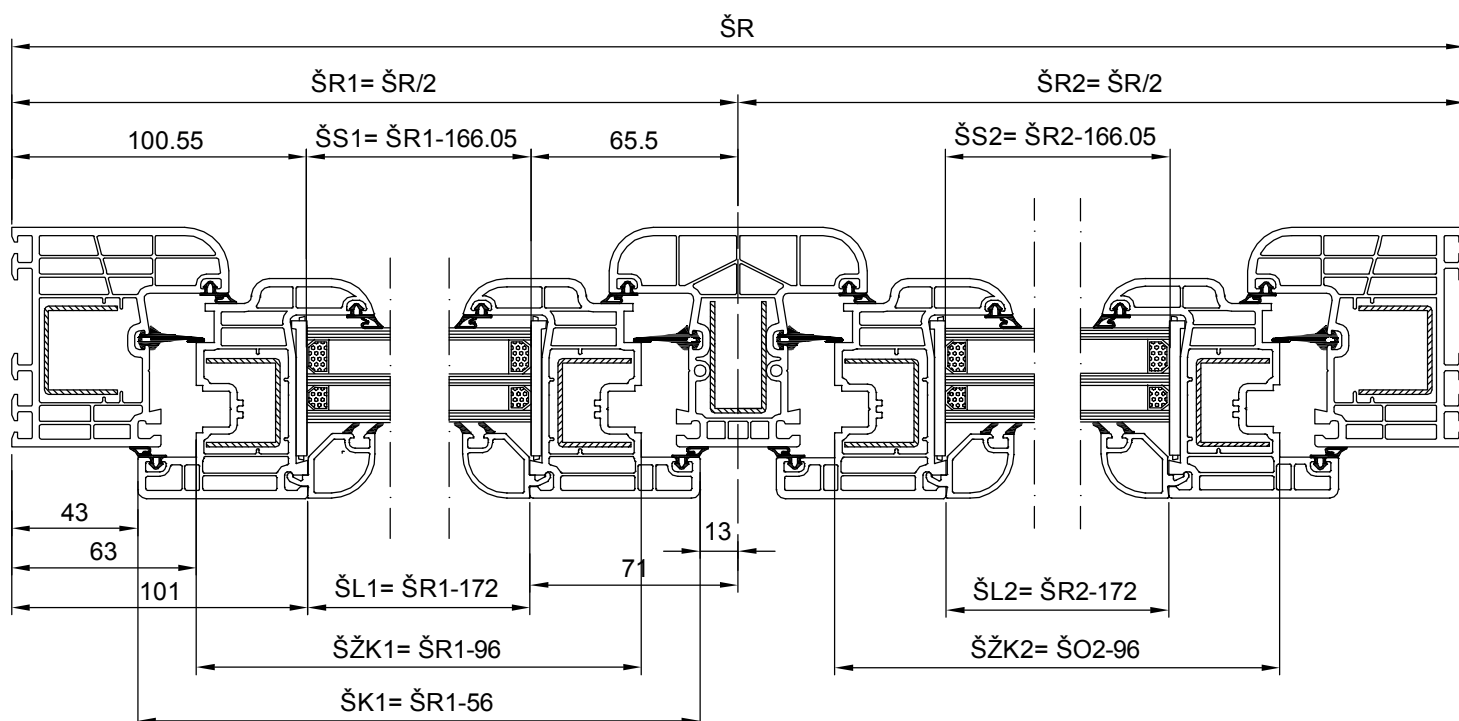
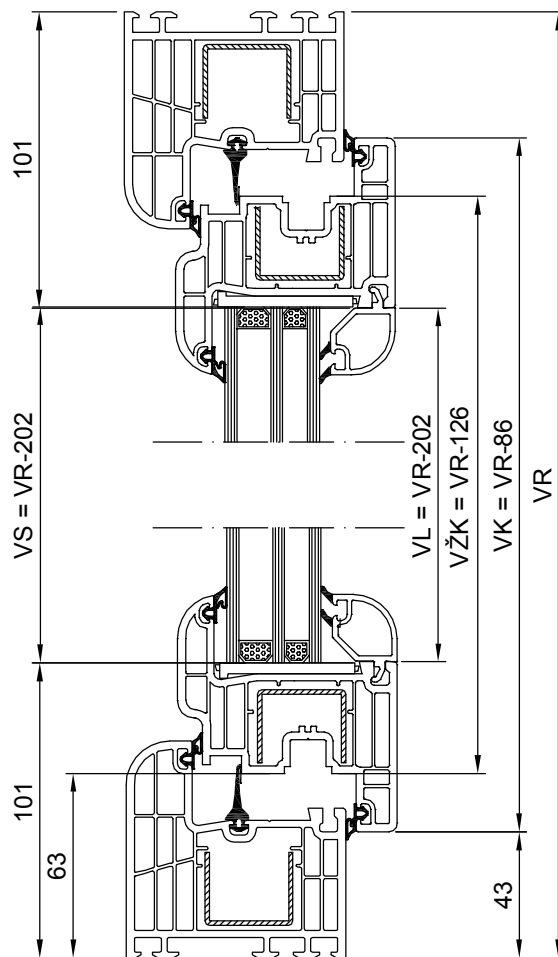
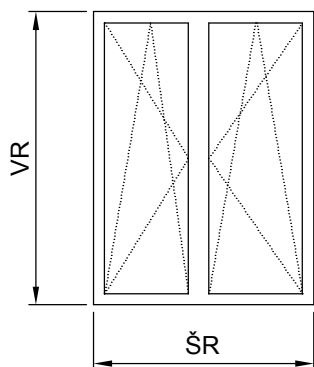
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# DVOKRILNI PROZOR SA STUBOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630

## LEGENDA

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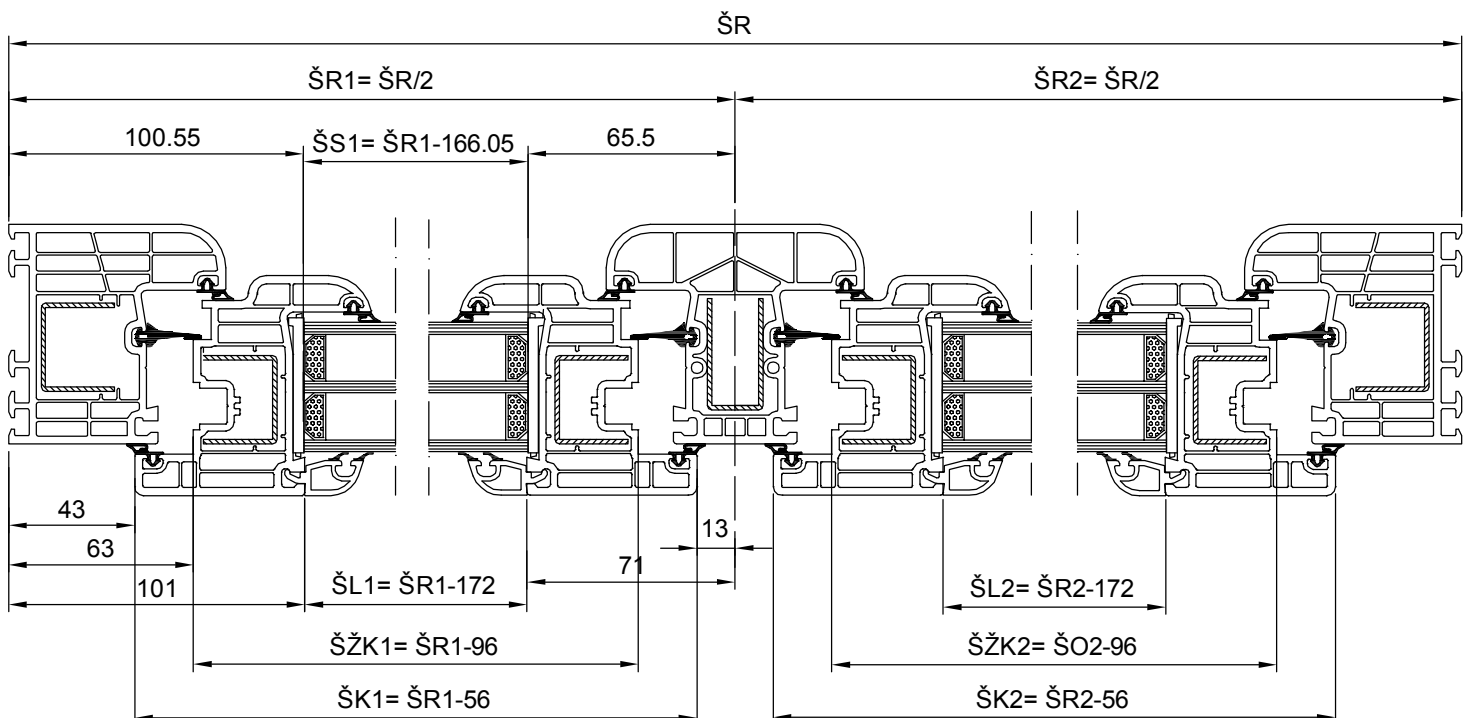
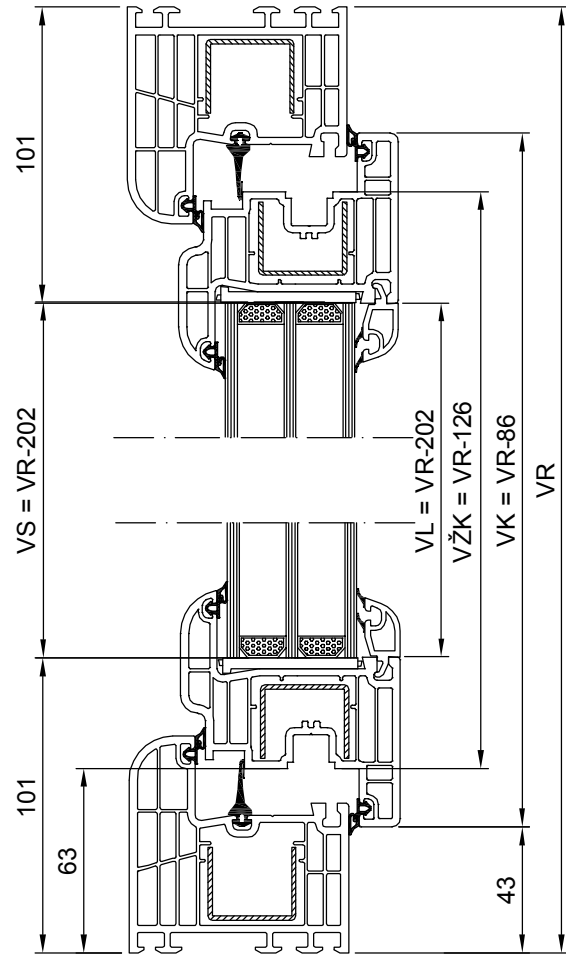
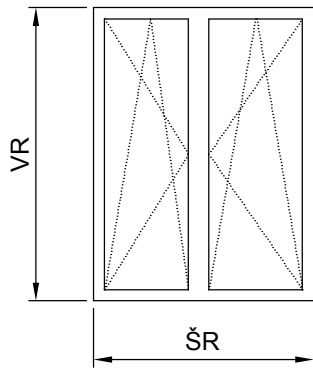




# DVOKRILNI PROZOR SA STUBOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330

## LEGENDA

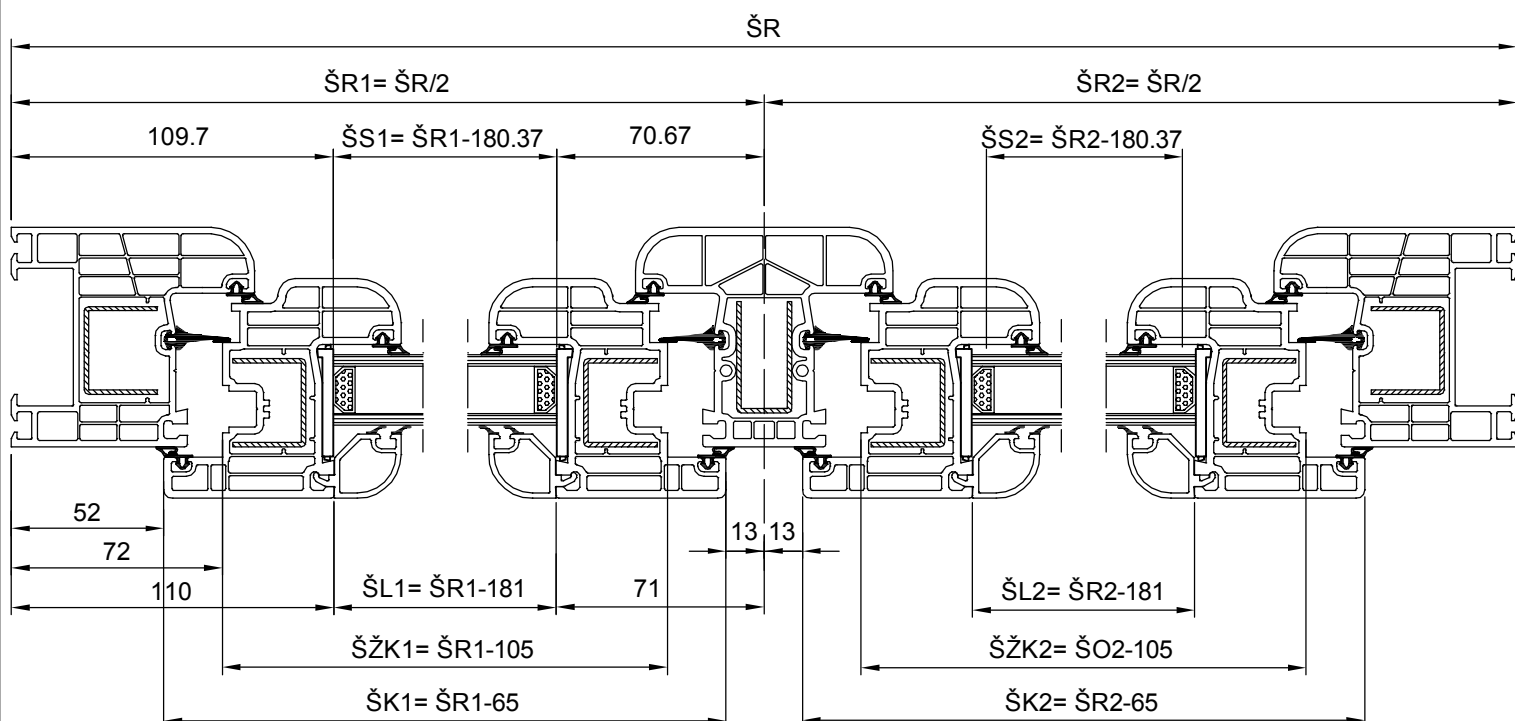
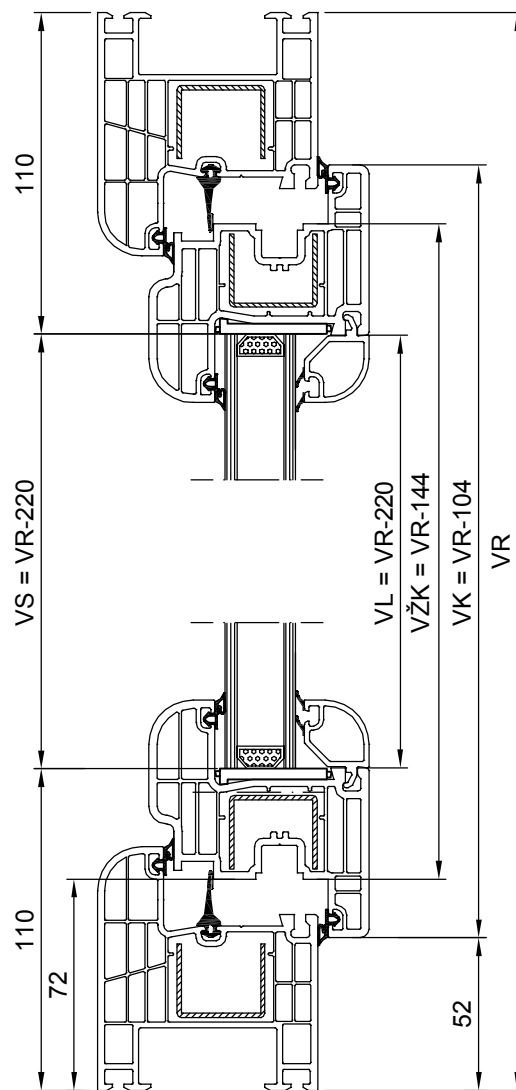
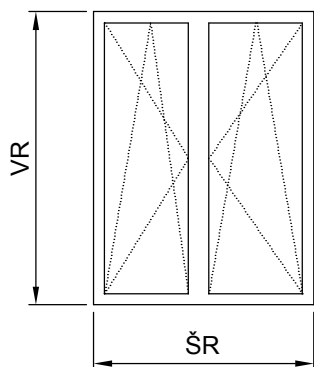
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# DVOKRILNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600

## LEGENDA

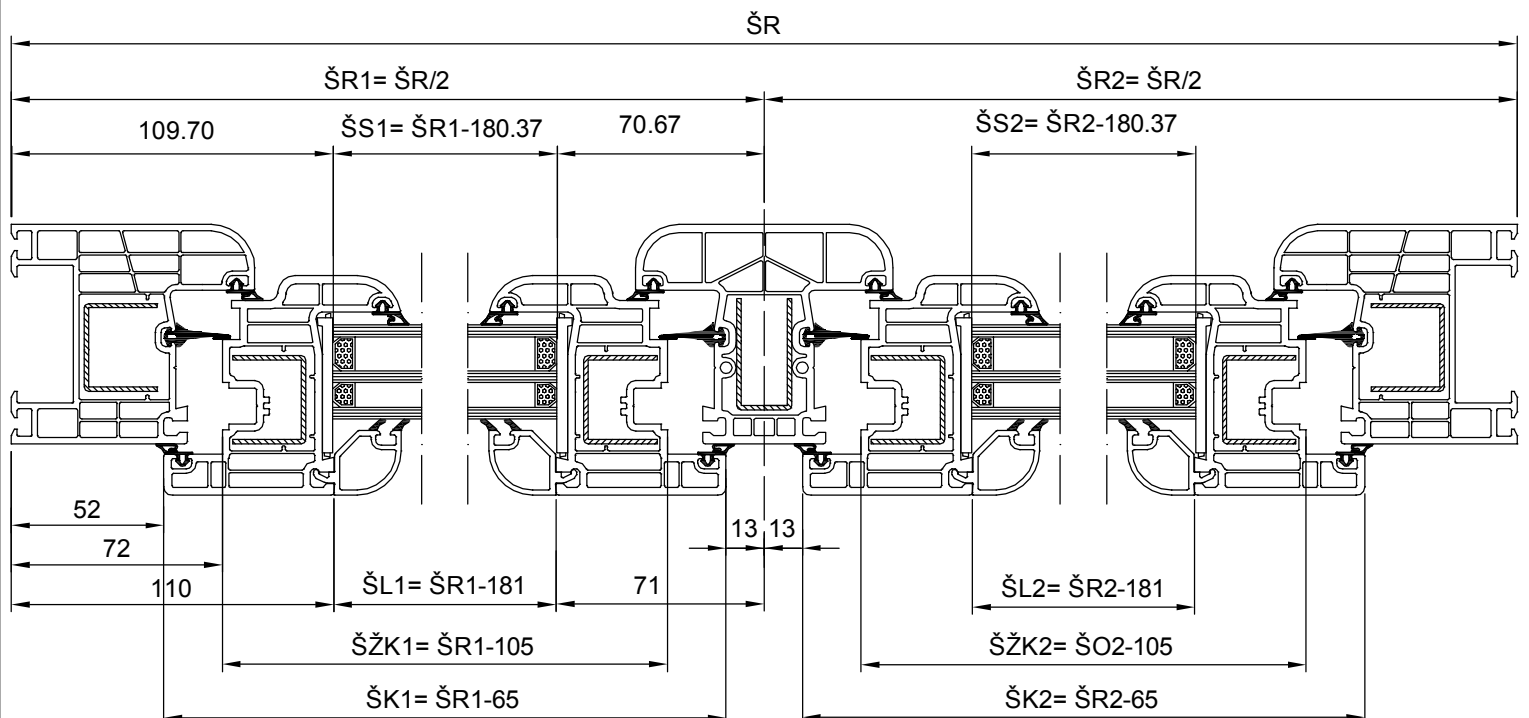
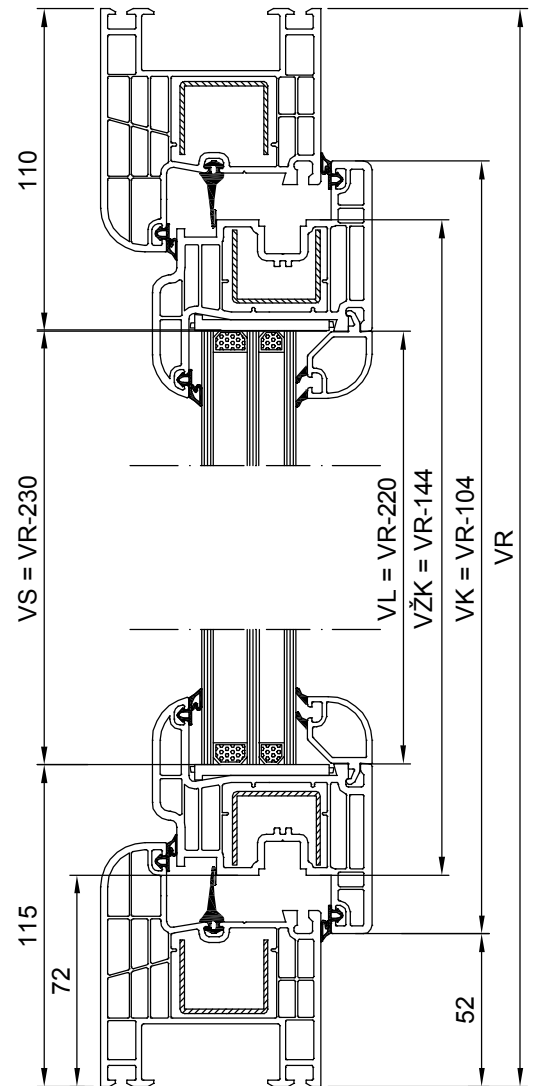
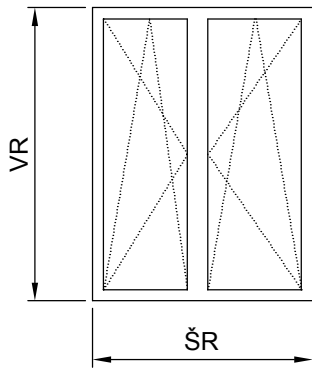
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# DVOKRILNI PROZOR SA STUBO PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630

## LEGENDA

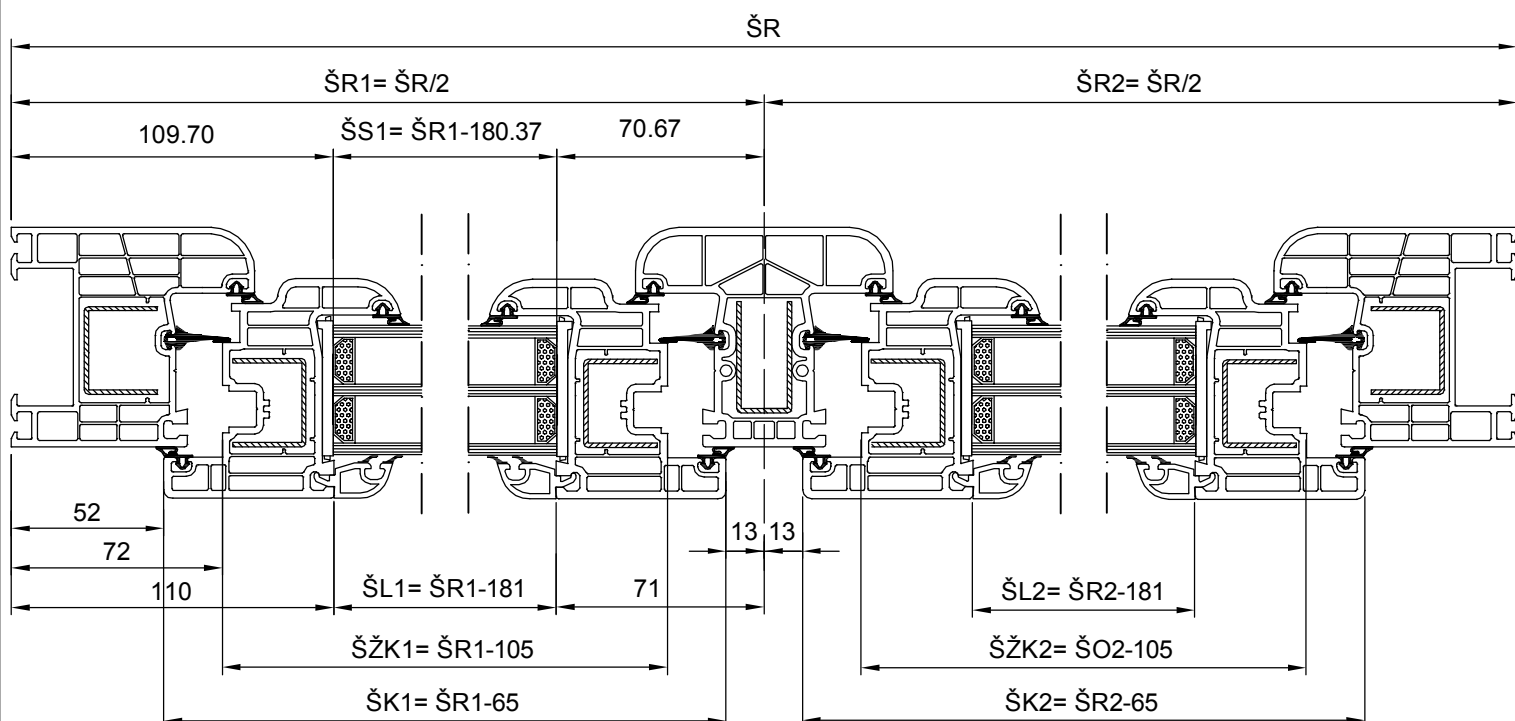
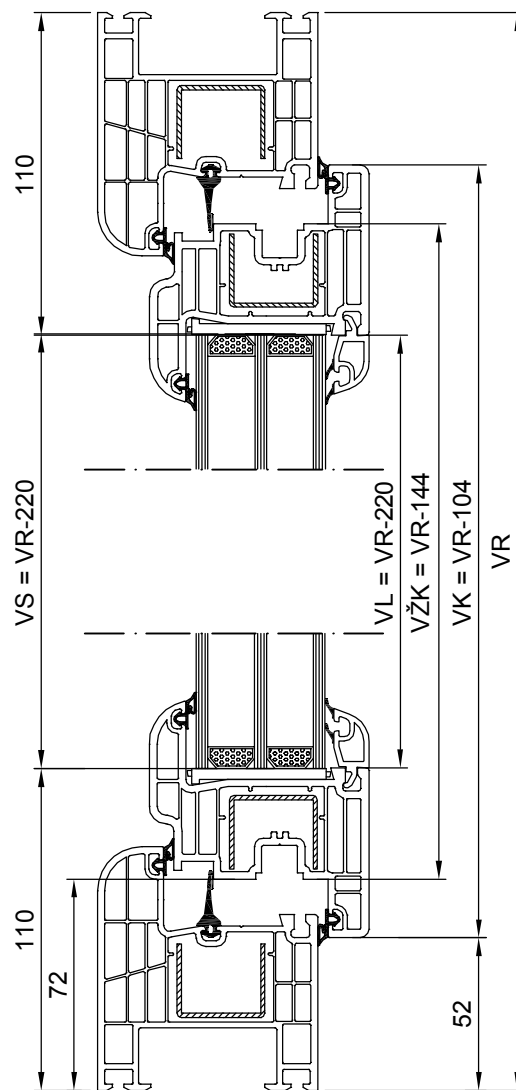
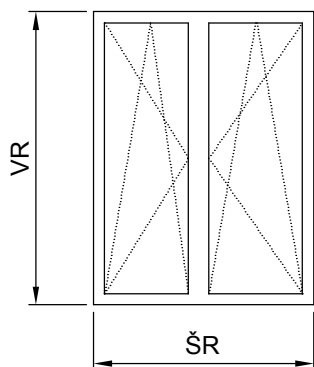
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 VR= VISINA RAMA  
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



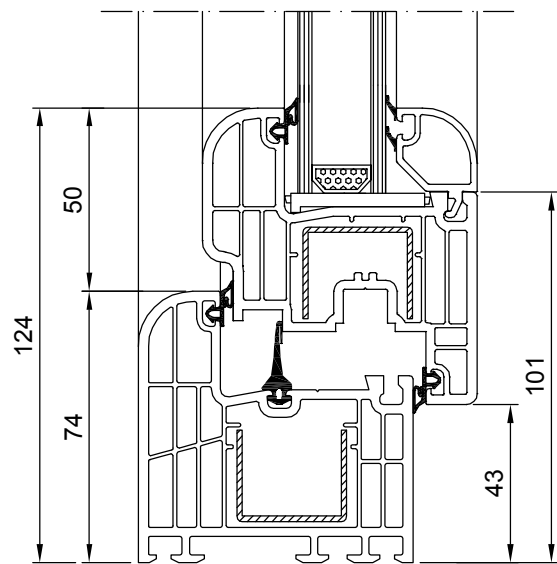
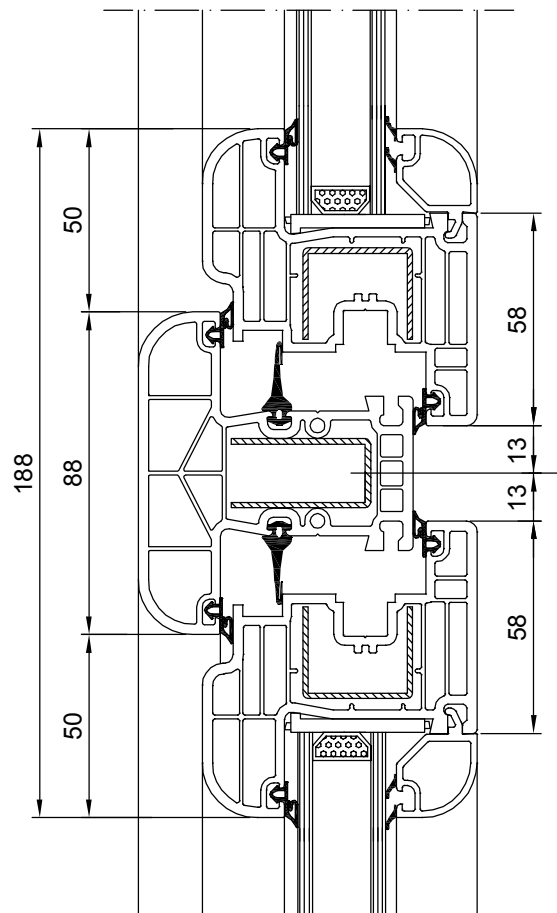
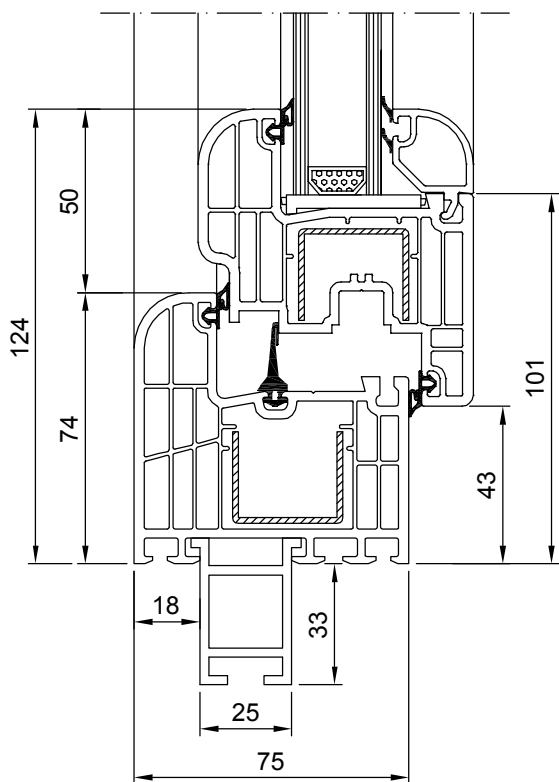
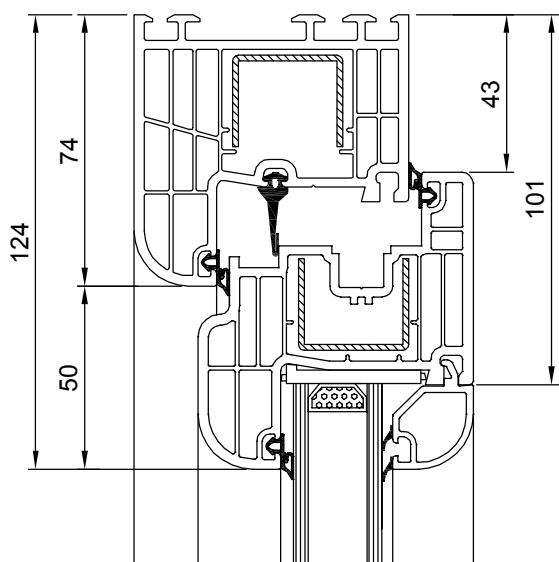
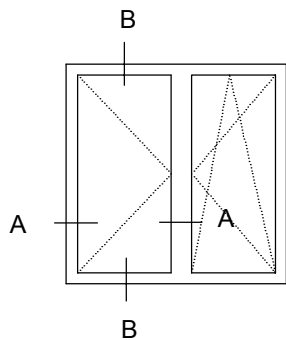
# DVOKRILNI PROZOR SA STUBO PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330

## LEGENDA

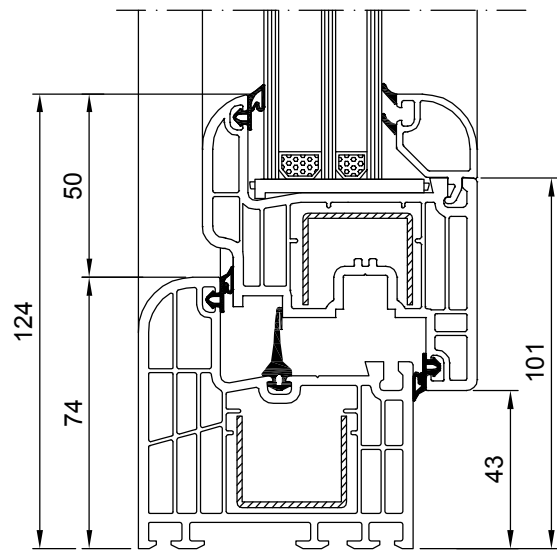
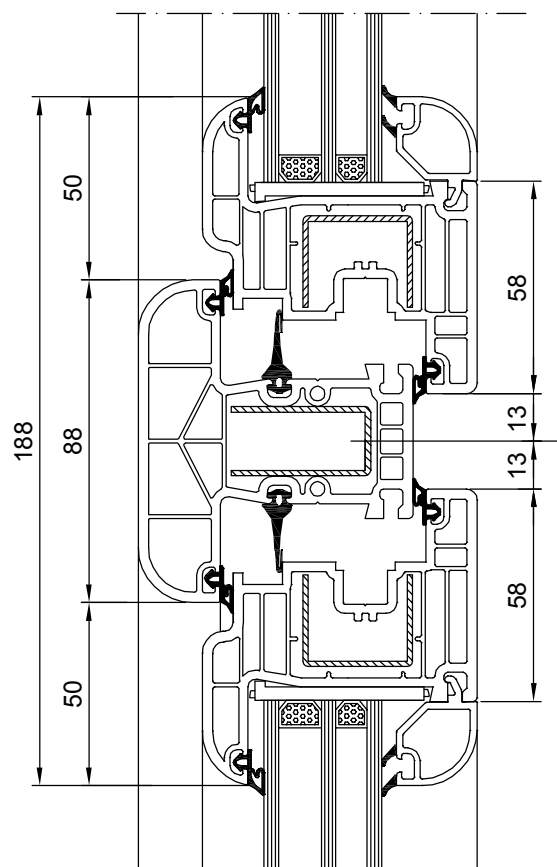
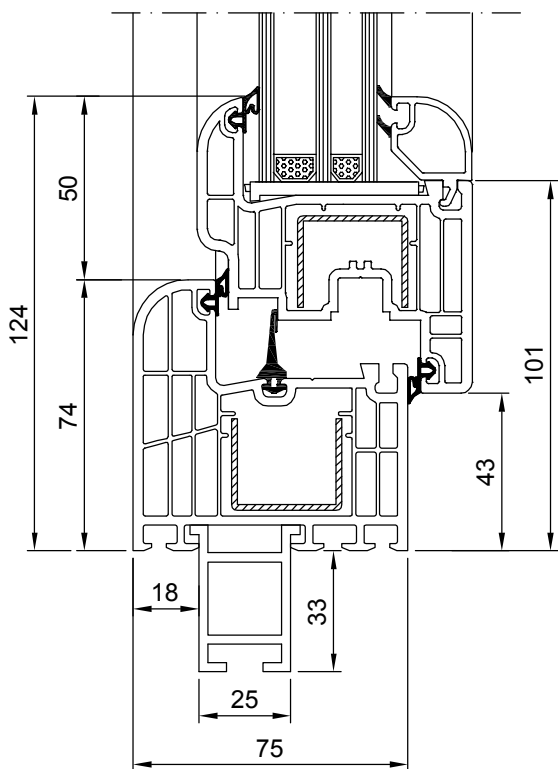
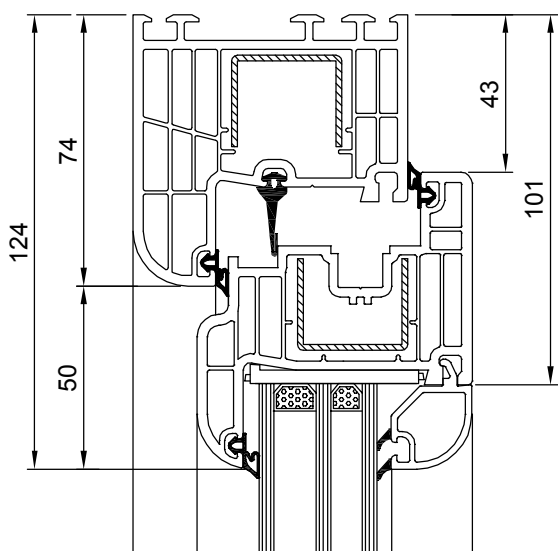
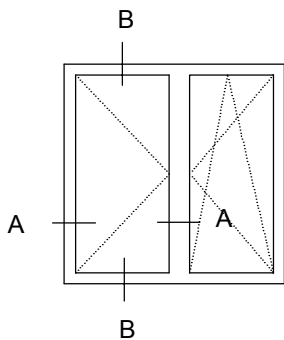
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



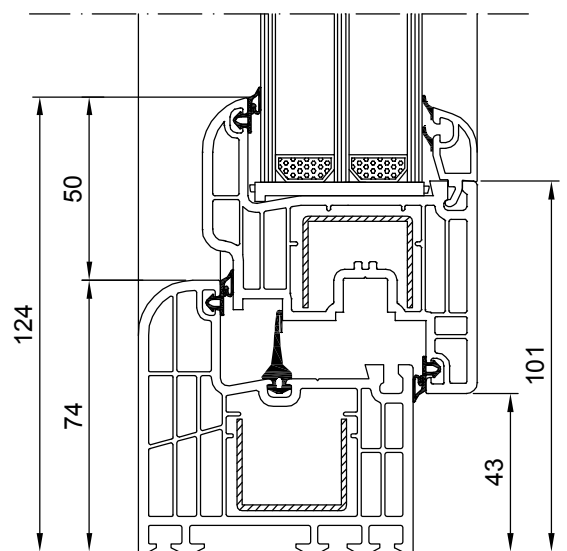
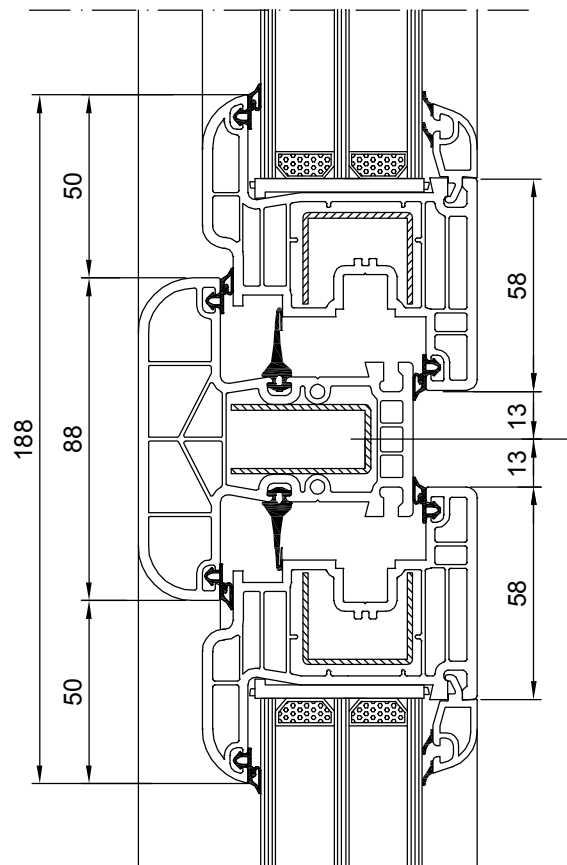
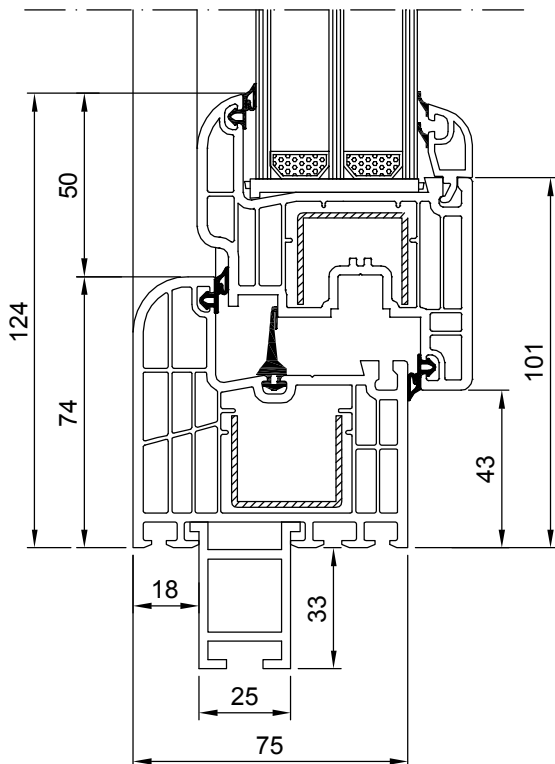
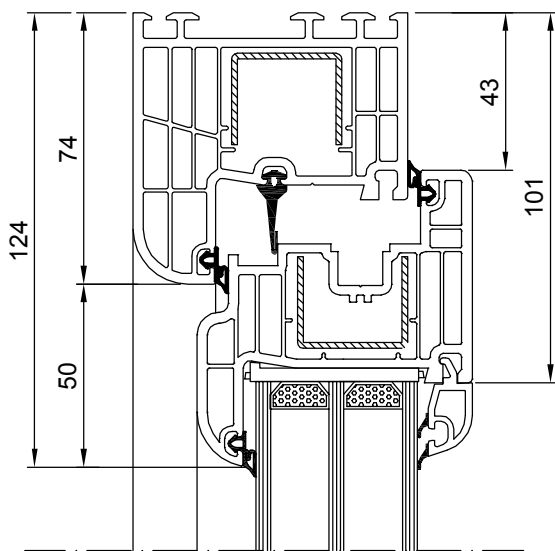
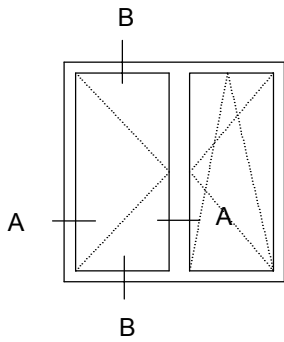
# DVOKRILNI PROZOR SA STUBOM SISTEM 600



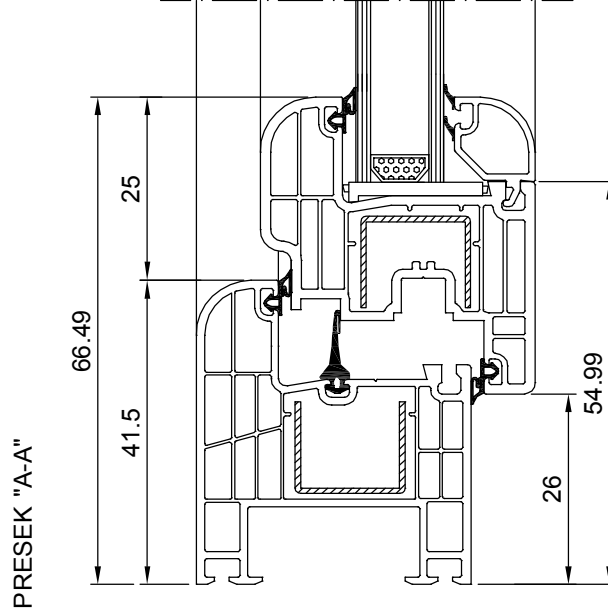
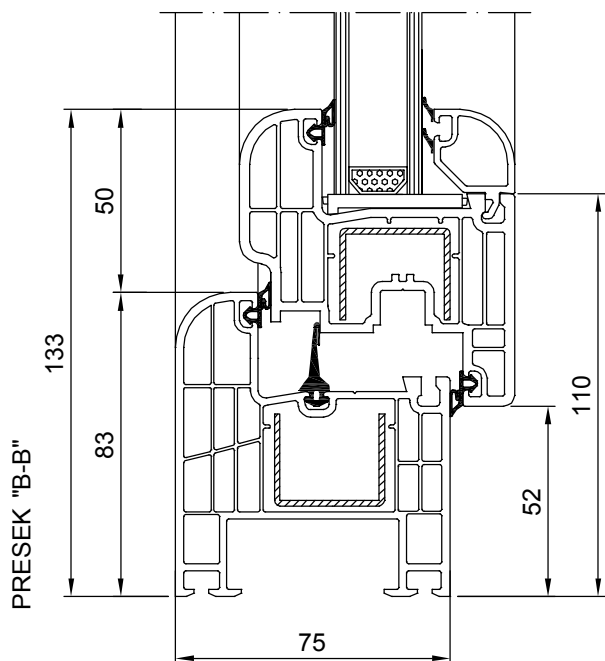
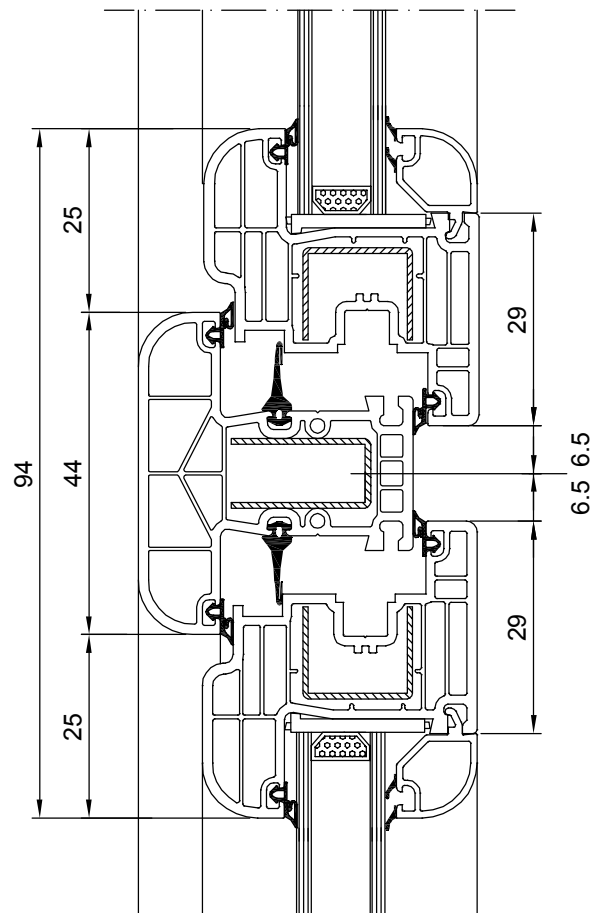
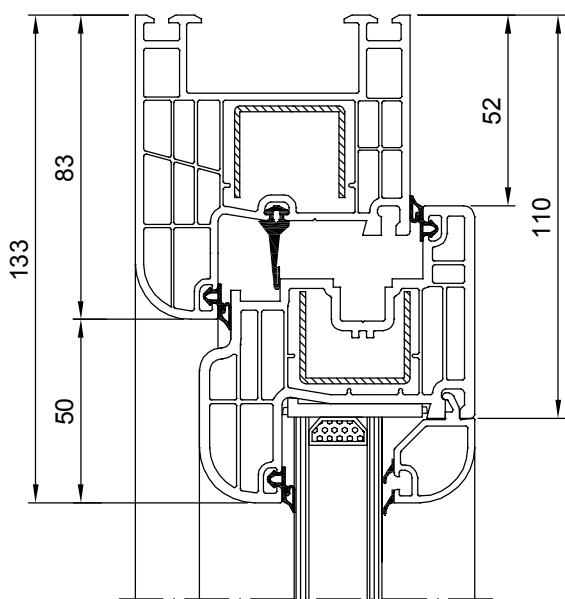
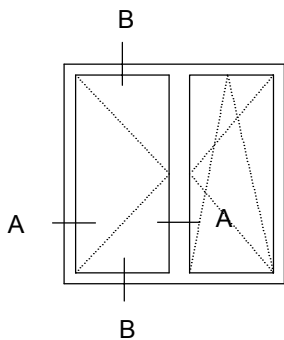
# DVOKRILNI PROZOR SA STUBOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630



# DVOKRILNI PROZOR SA STUBOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330

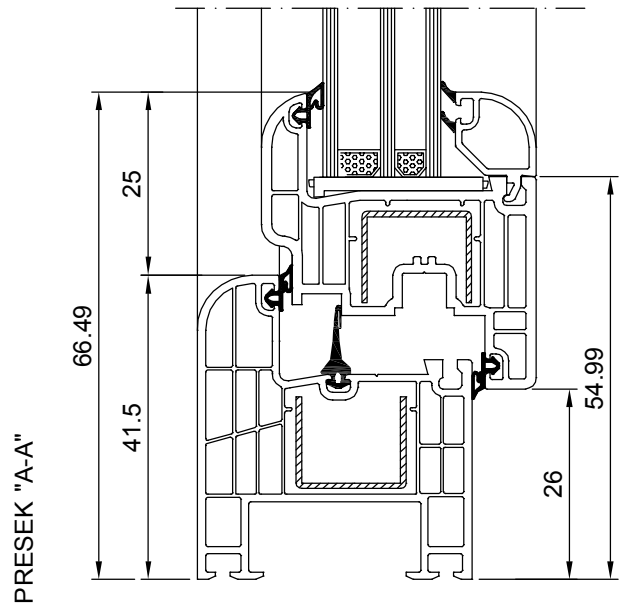
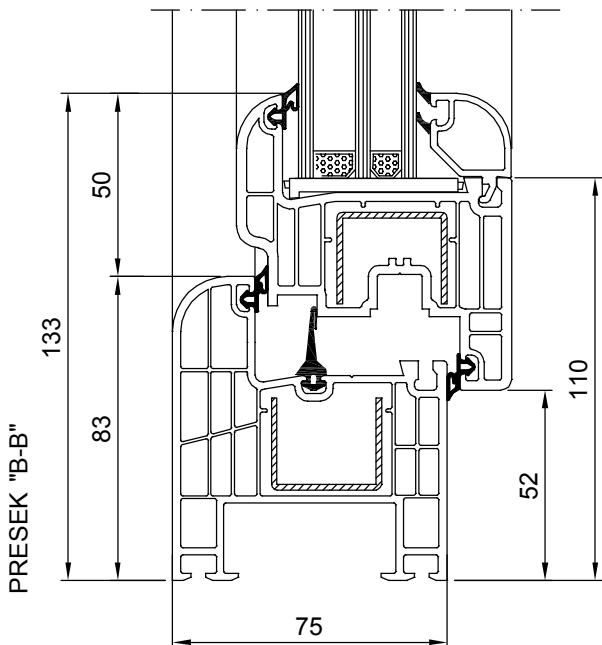
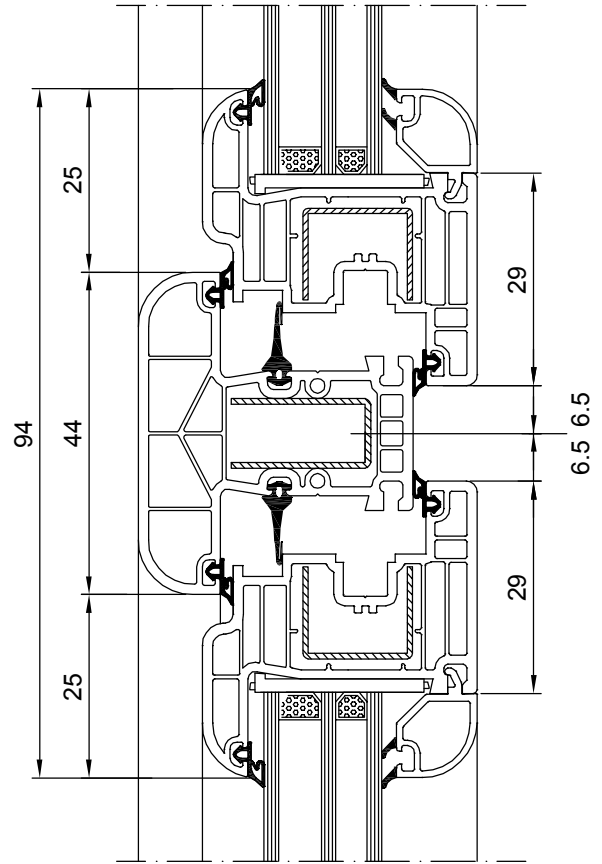
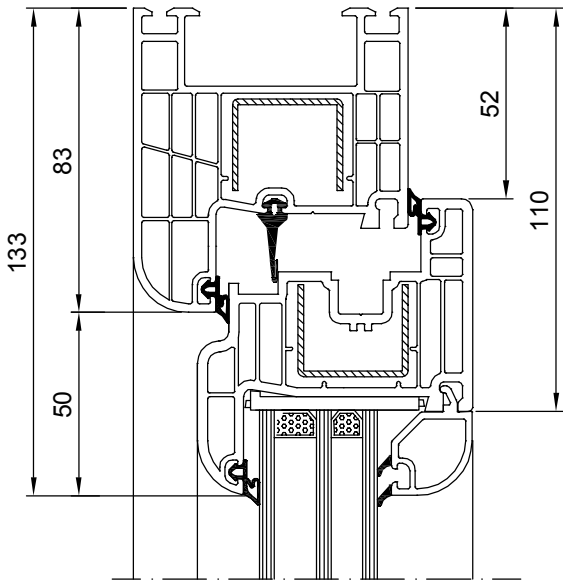
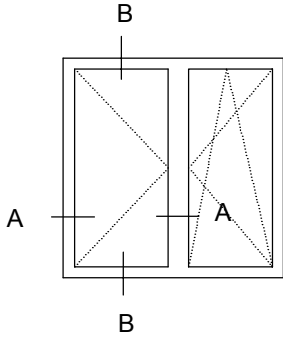


# DVOKRILNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600

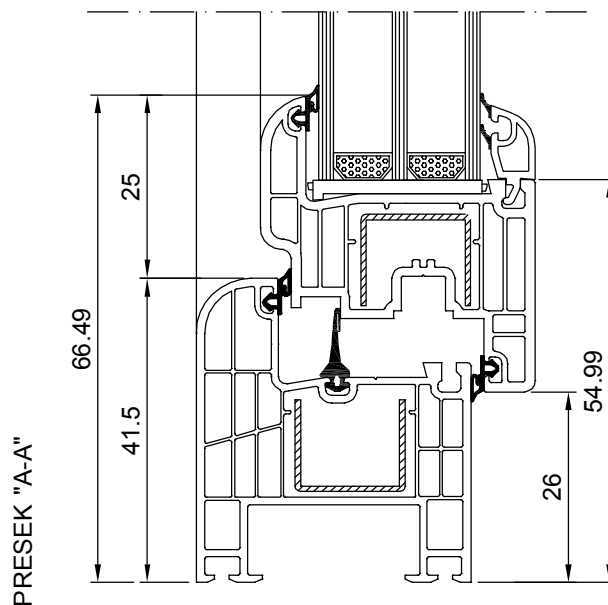
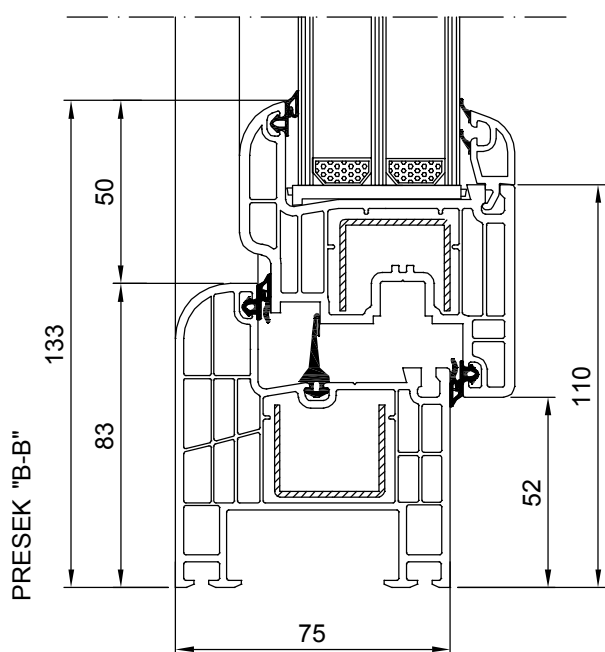
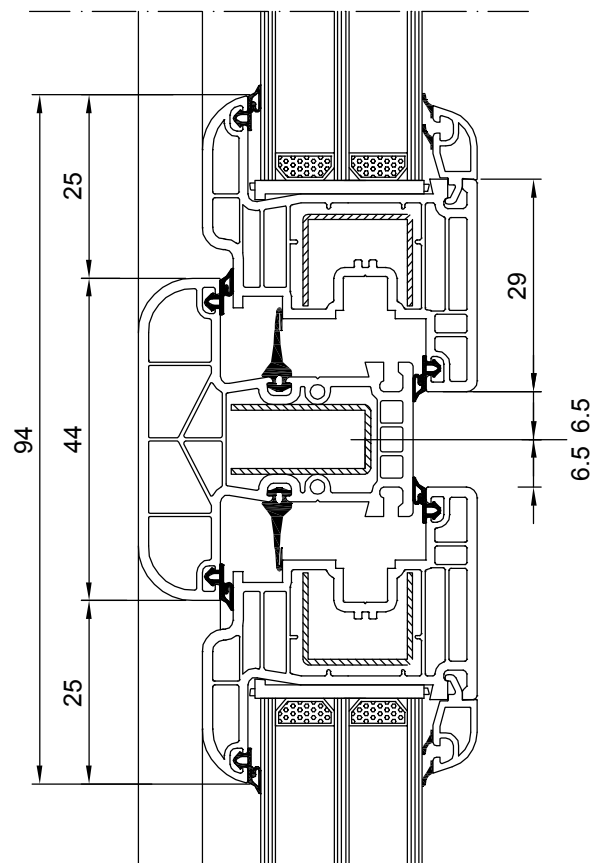
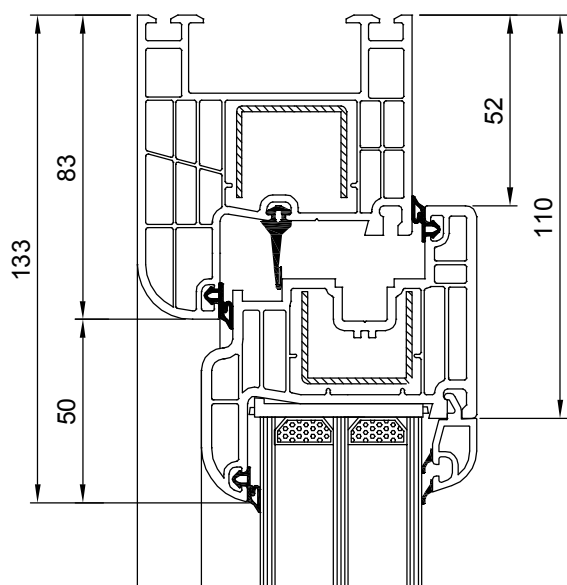
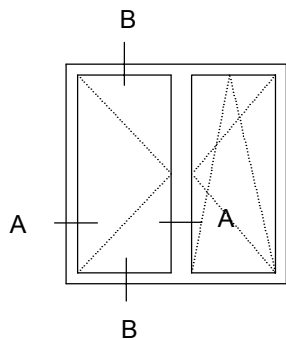




# DVOKRILNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_630



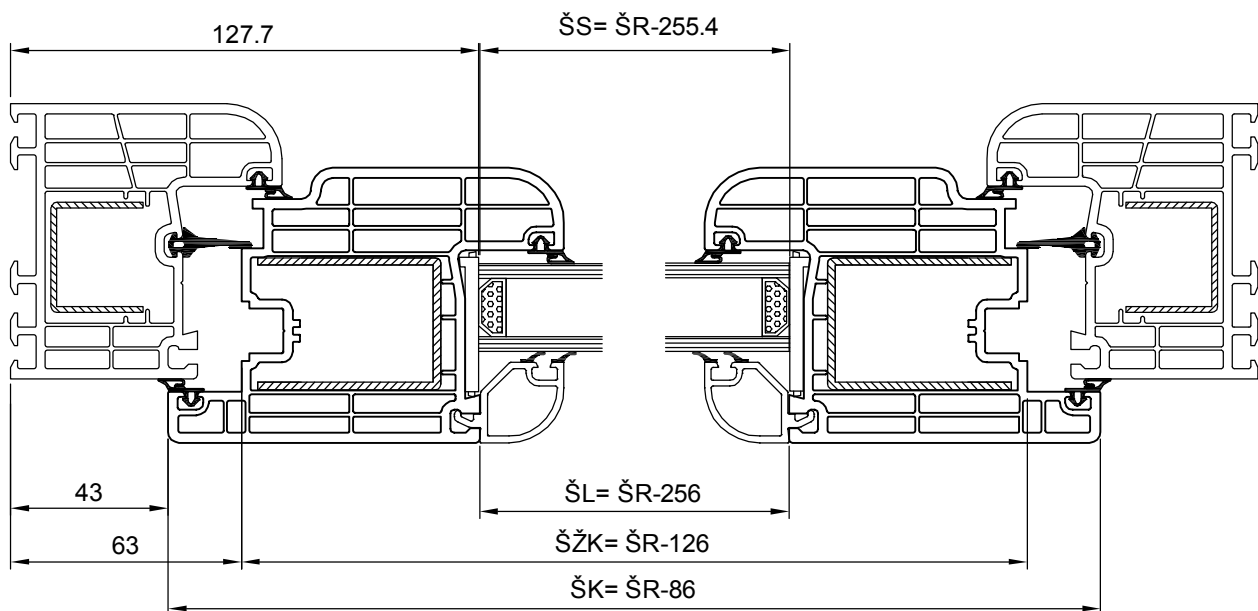
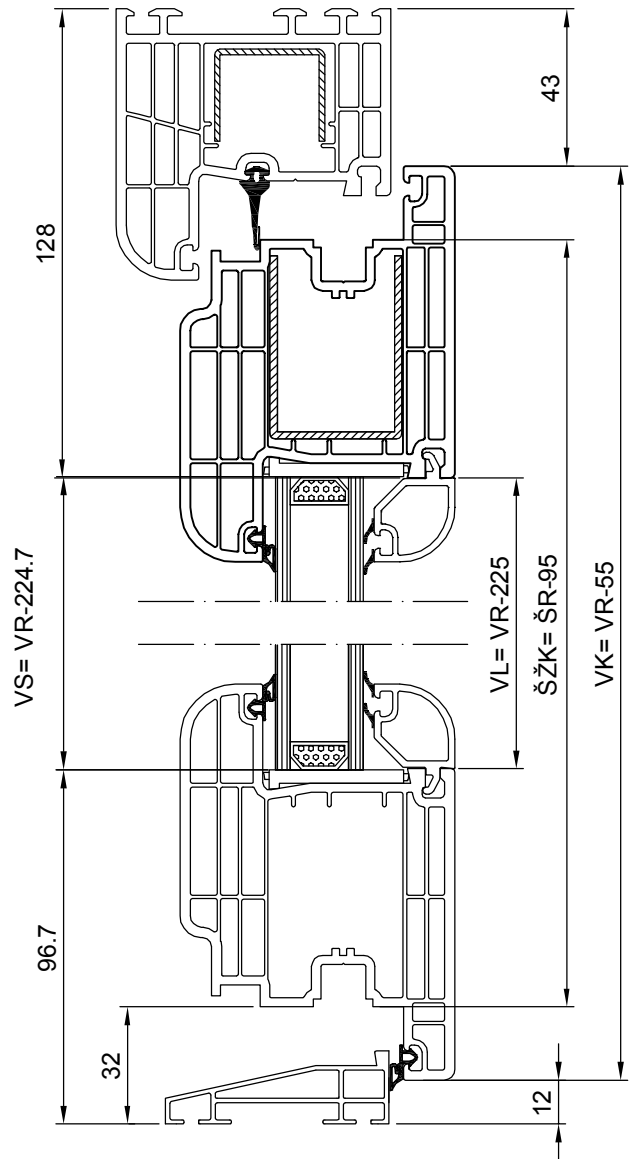
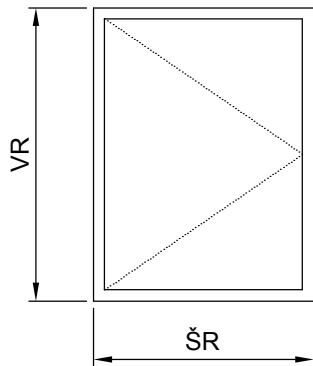
# DVOKRILNI PROZOR SA STUBOM I PROŠIRENIM RAMOM SISTEM 600 SA TROSLOJNIM STAKLOM 613\_330



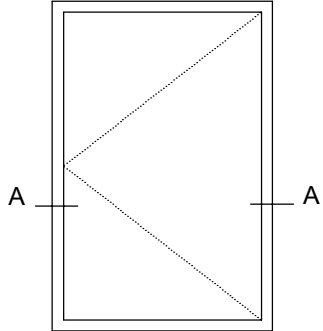
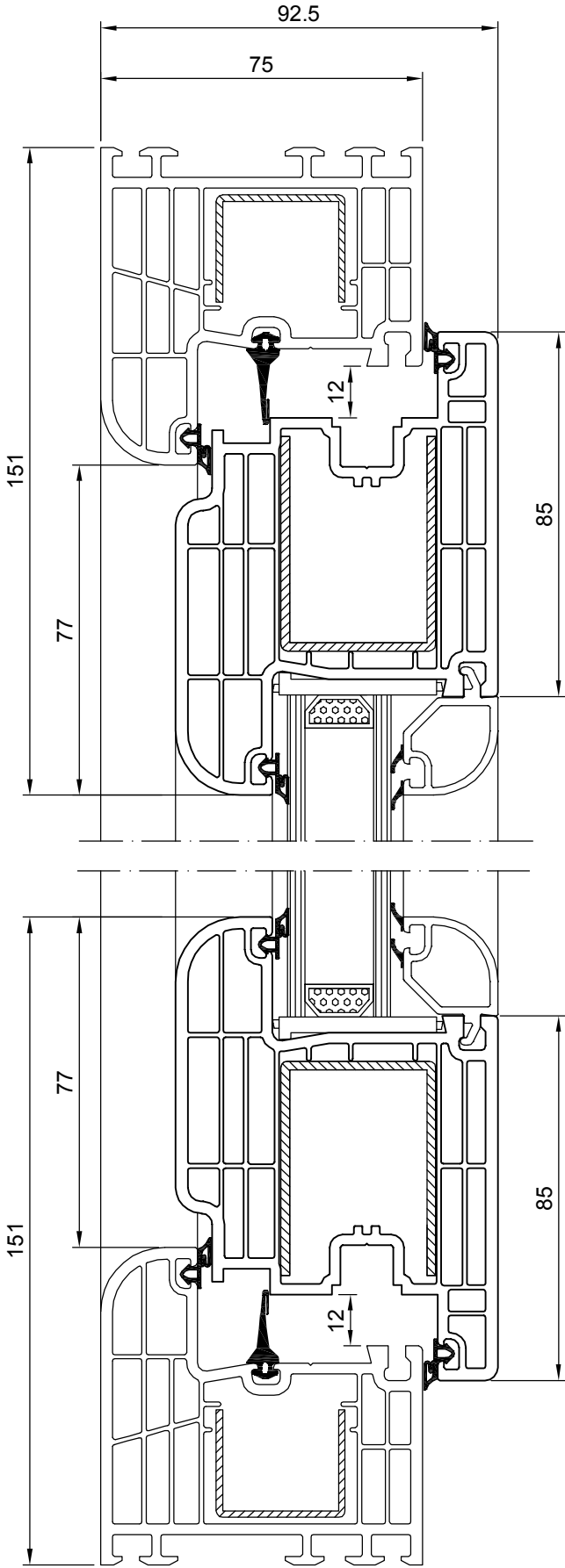
# ULAZNA VRATA SISTEM 600

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# ULAZNA VRATA SISTEM 600

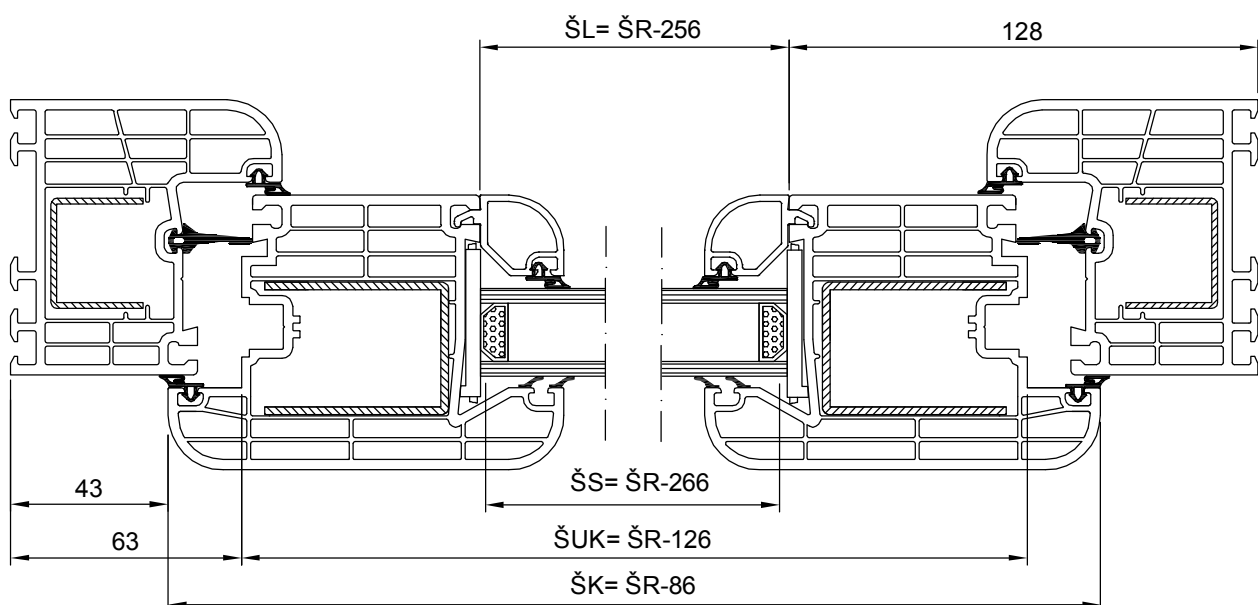
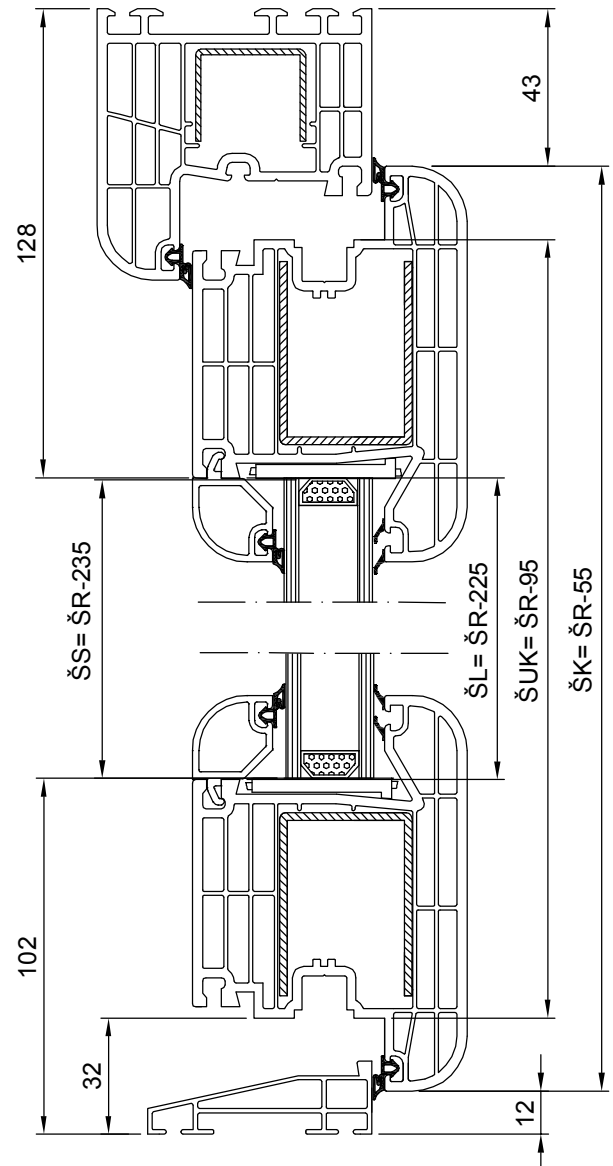
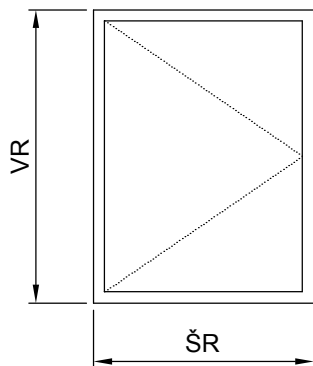


PRESEK "A-A"

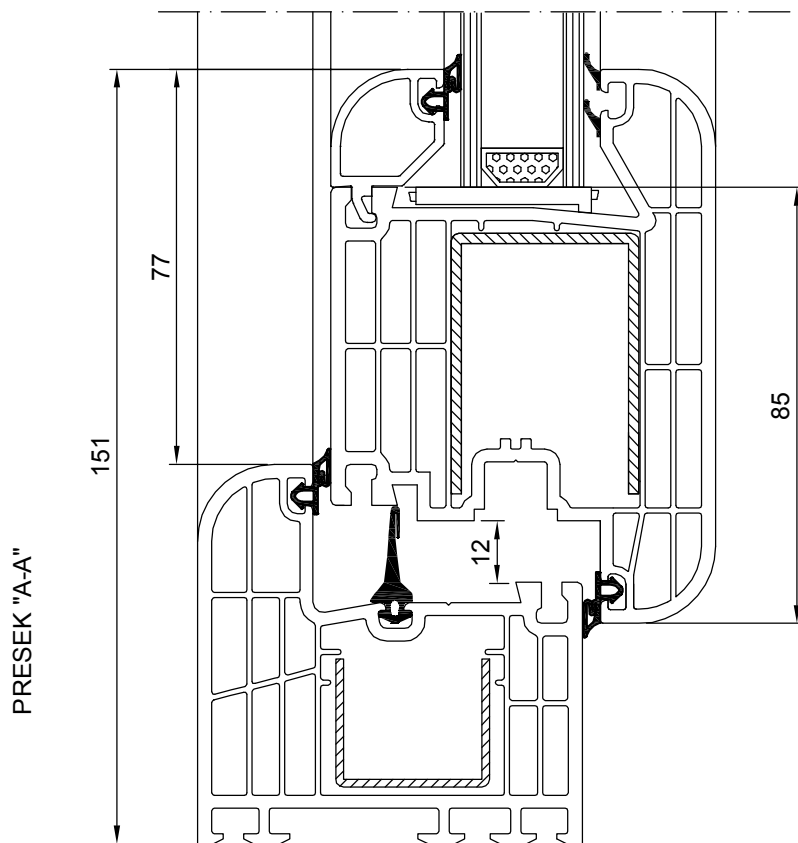
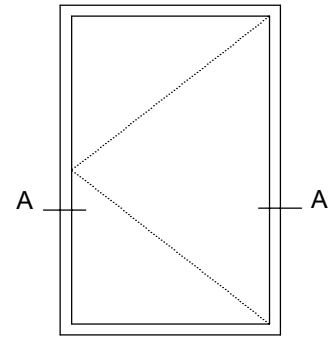
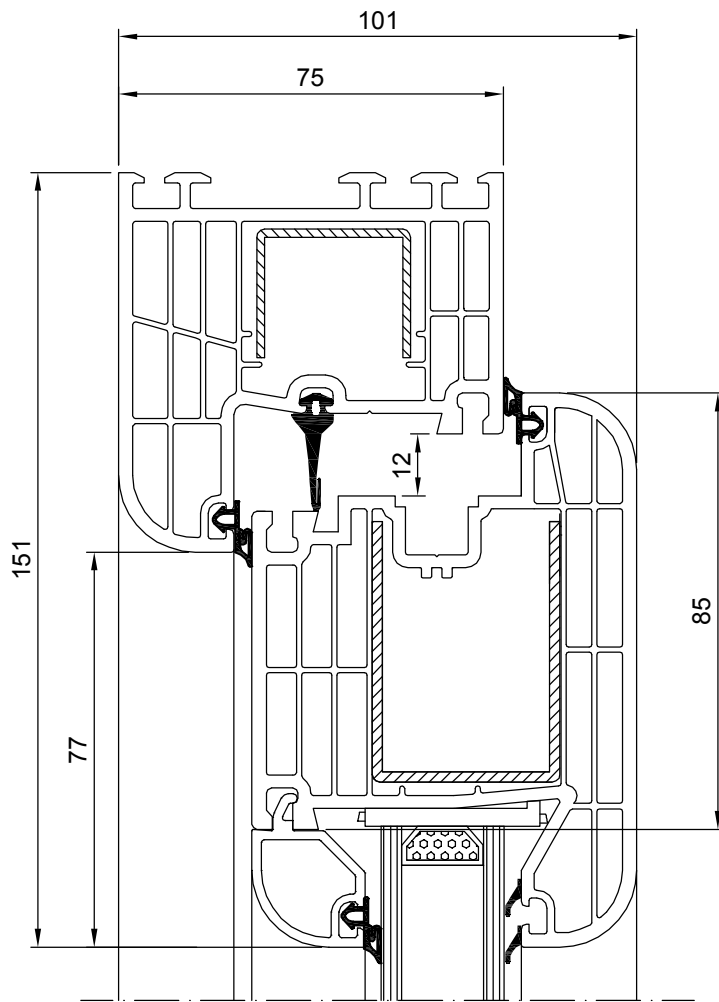
# ULAZNA VRATA SA SPOLJAŠNIM OTVARANJEM SISTEM 600

## LEGENDA

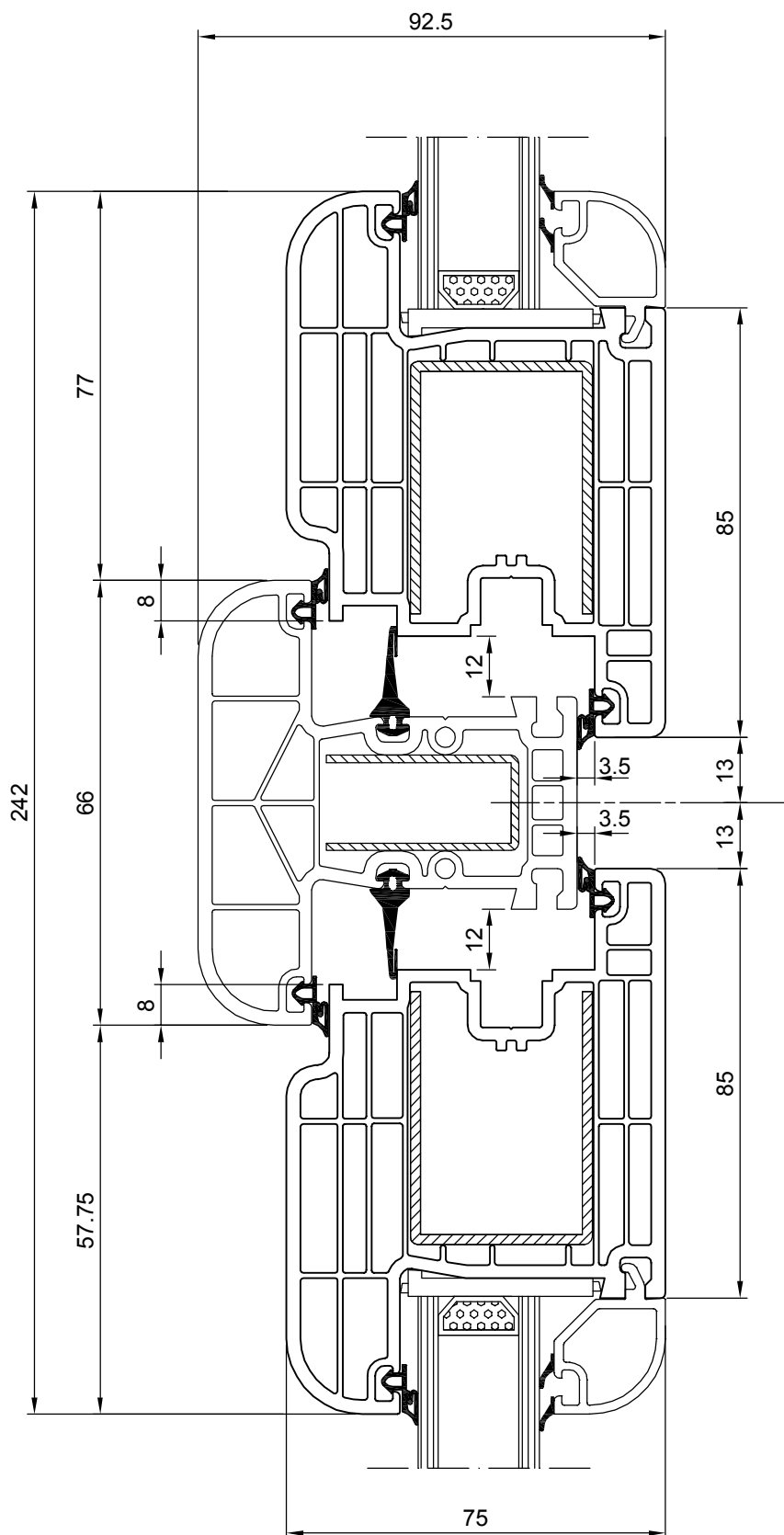
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 VK= VISINA KRILA  
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 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



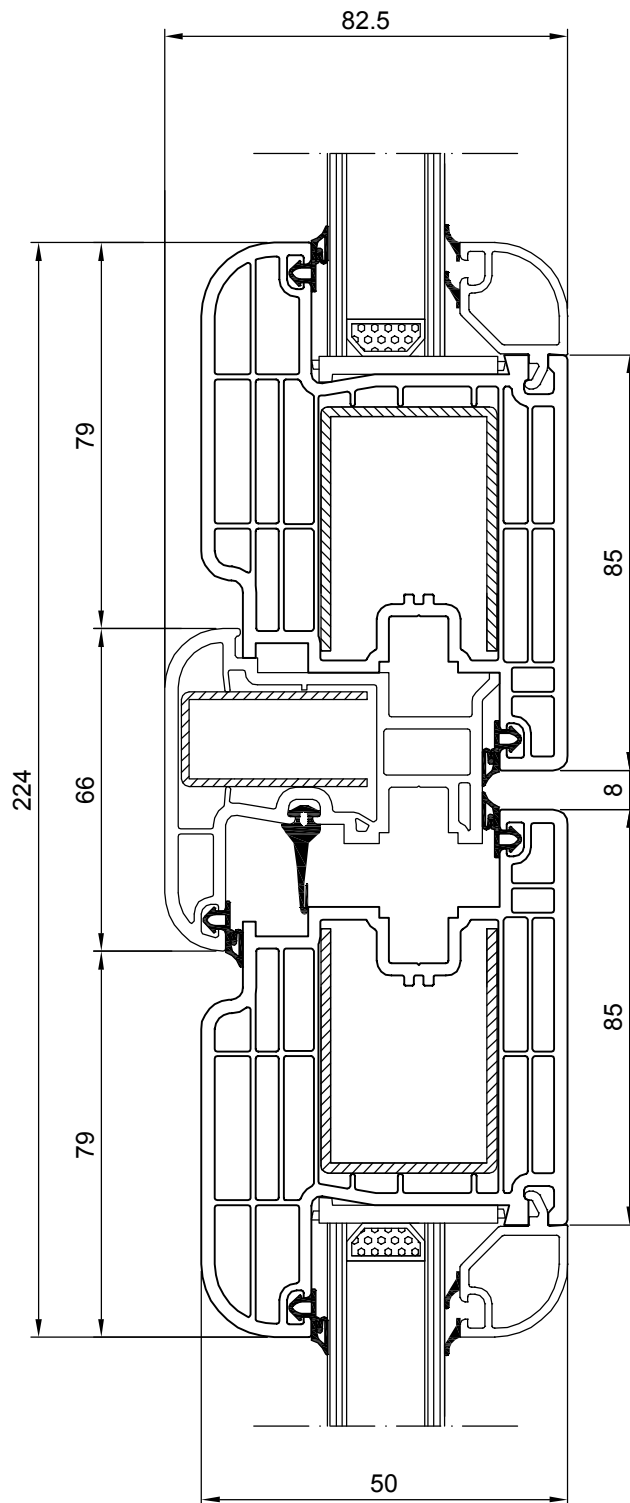
# ULAZNA VRATA SA SPOLJAŠNJIM OTVARANJEM SISTEM 600



# PRESEK VRATA KRILO-STUB-KRILO SISTEM 600



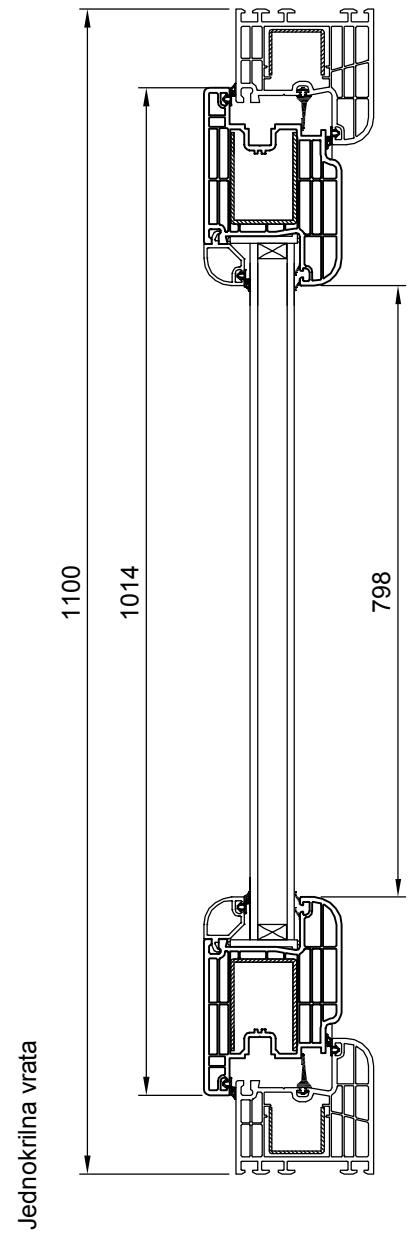
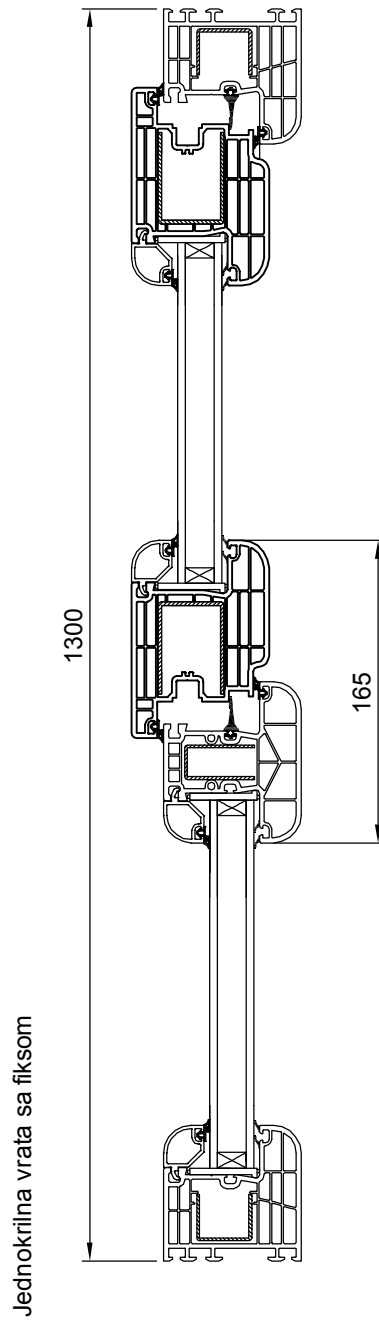
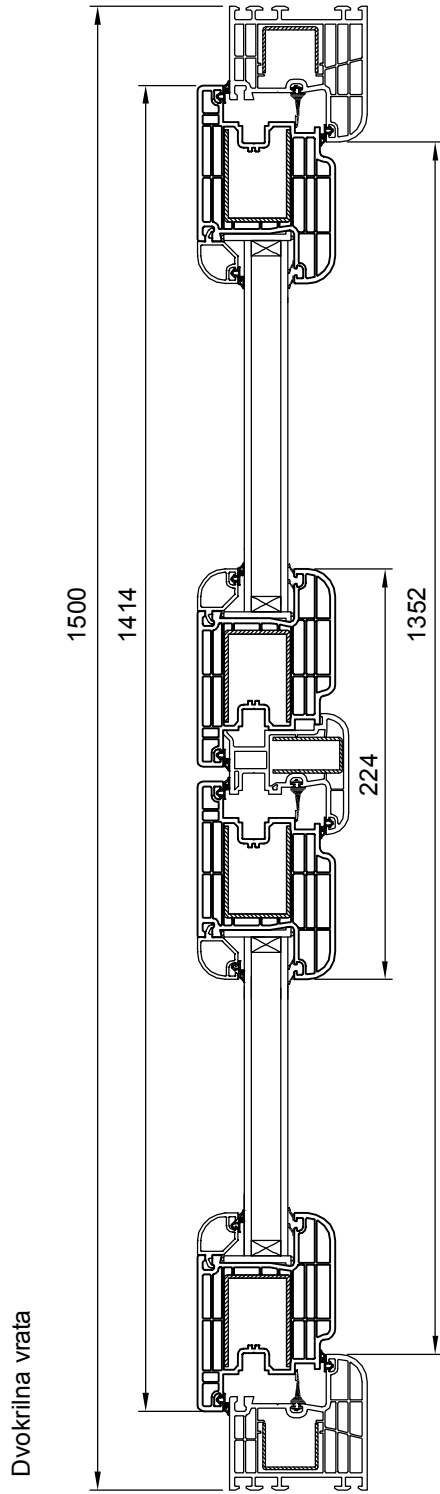
# PRESEK VRATA KRILO-PREKLOP-KRILO SISTEM 600



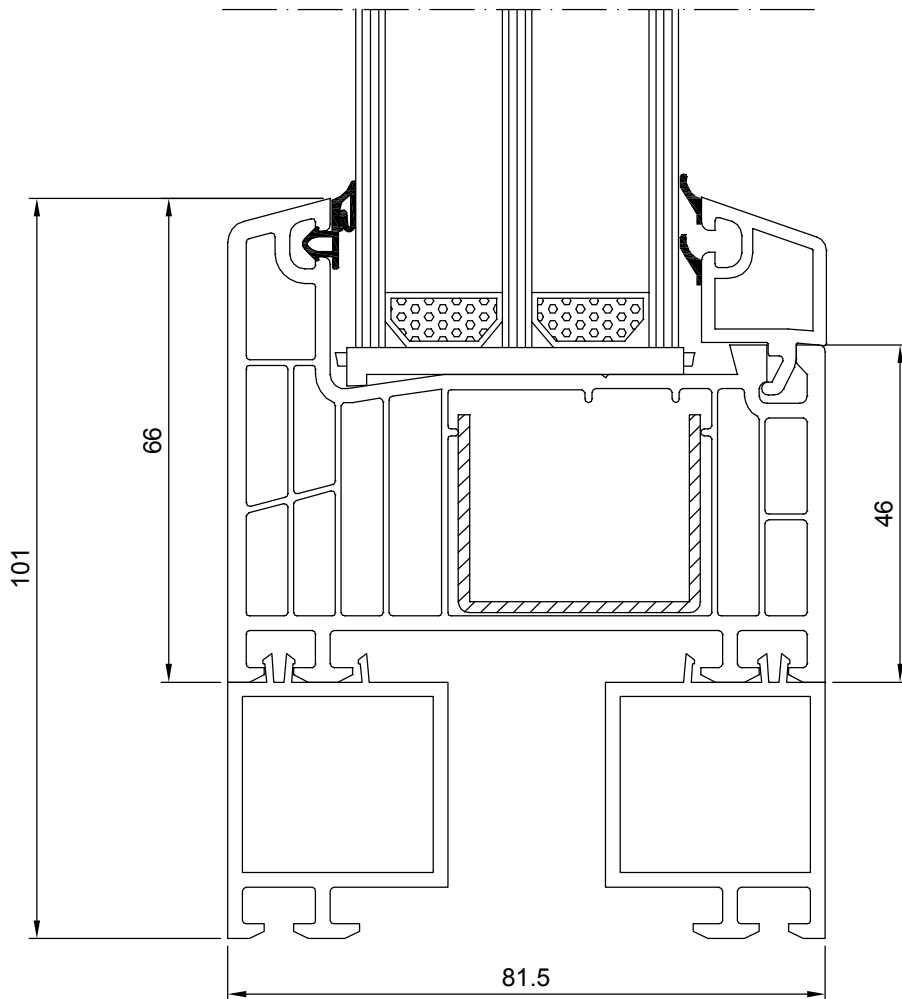




# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA SISTEM 600



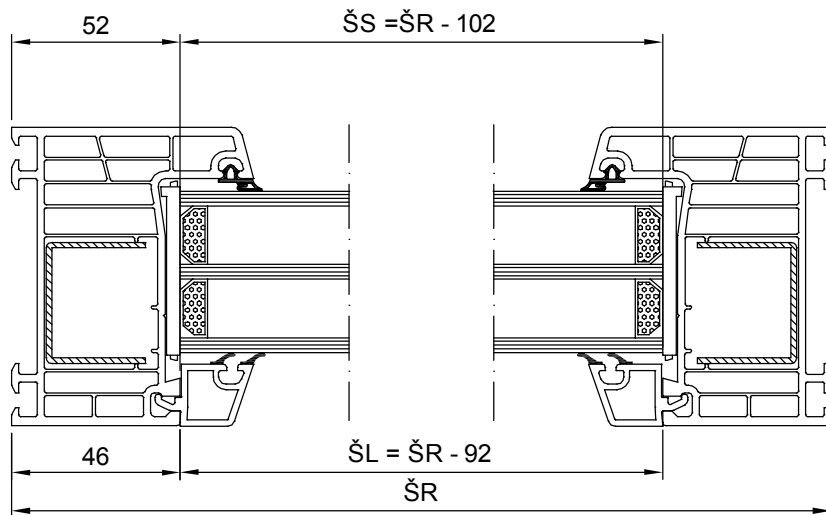
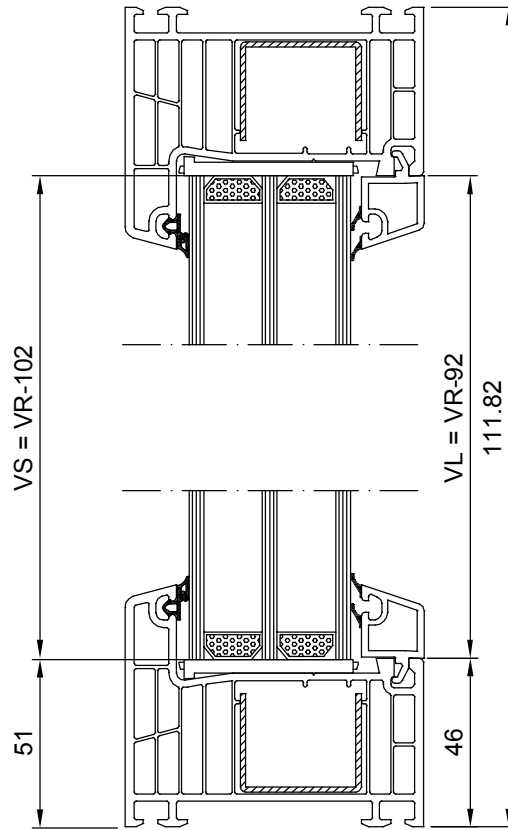
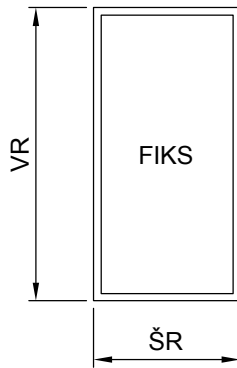
PRESEK PROZORA  
NASTAVAK RAMA - RAM  
SISTEM 700



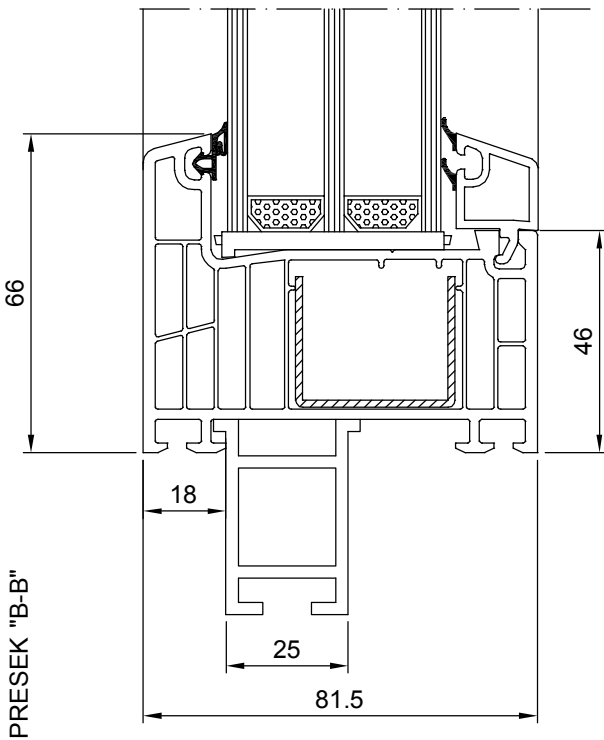
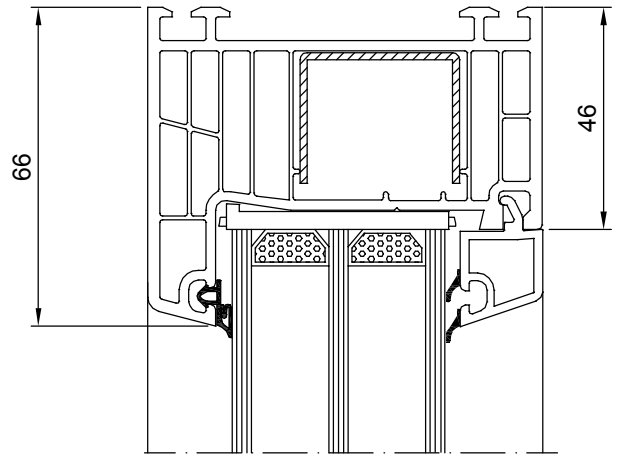
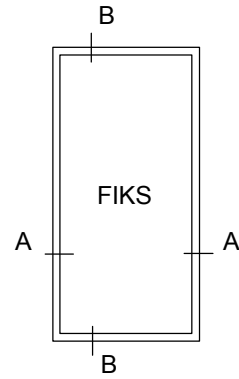
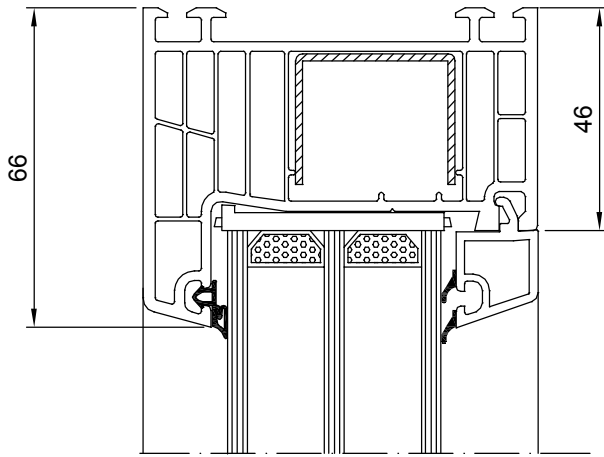
# FIKSNI PROZOR SISTEM 700

## LEGENDA

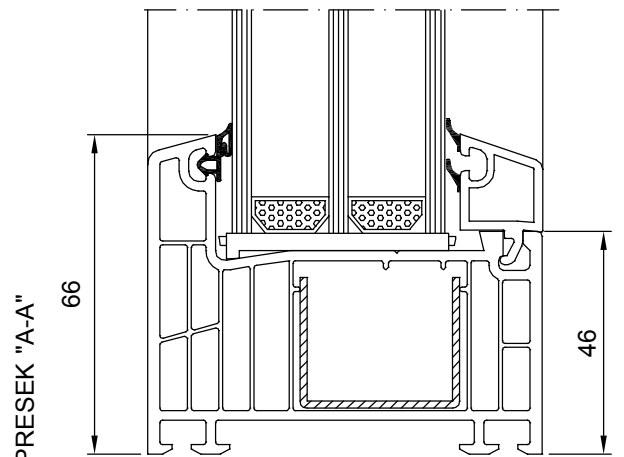
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 VR= VISINA RAMA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# FIKSNI PROZOR SISTEM 700

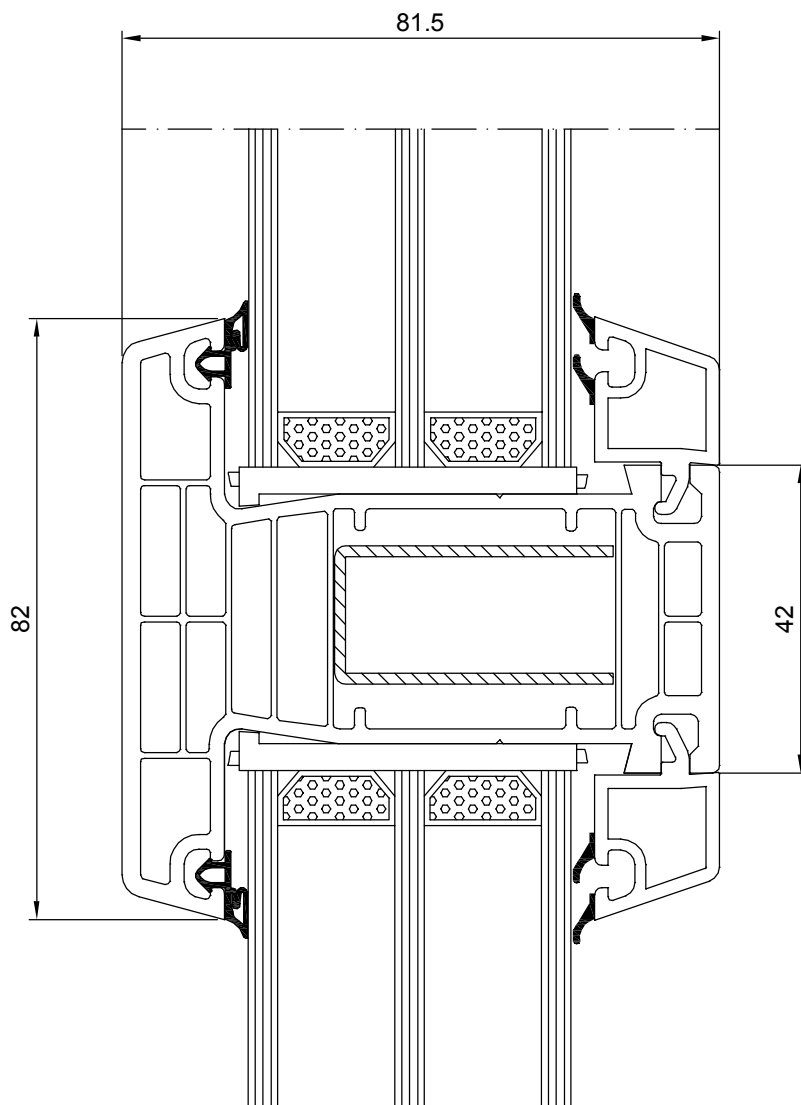


PRESEK "B-B"



PRESEK "A-A"

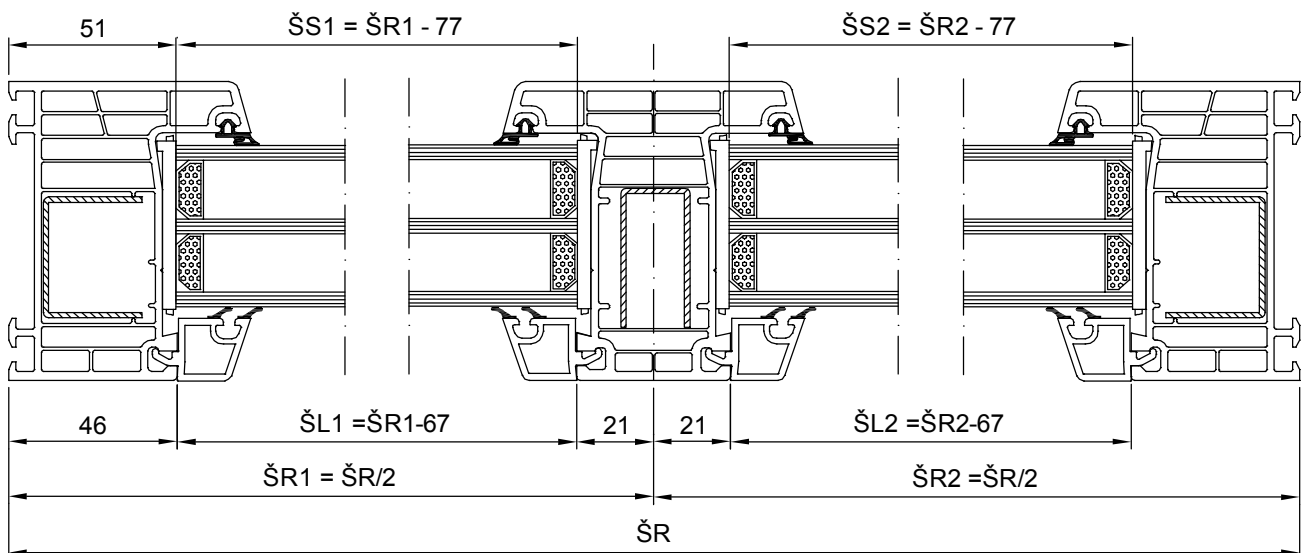
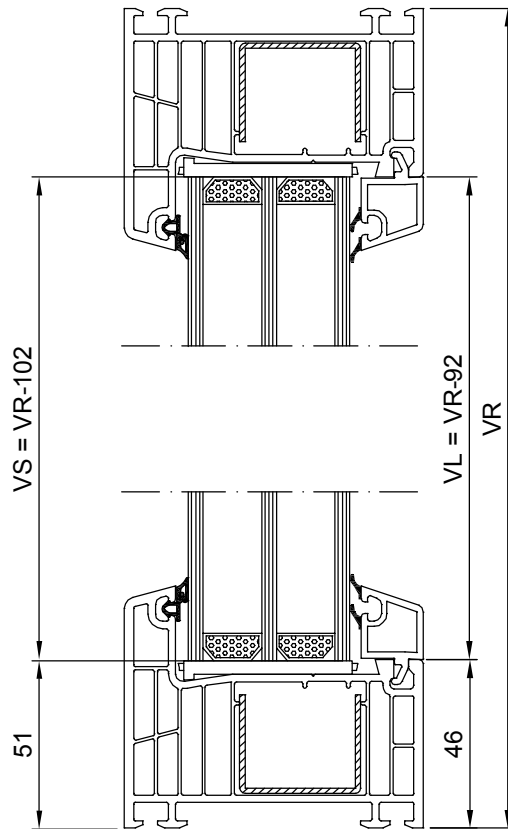
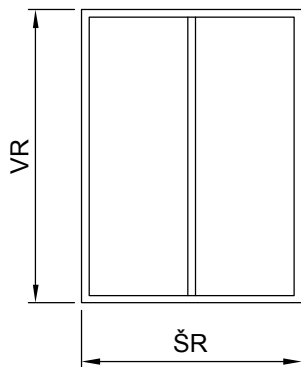
PRESEK PROZORA  
STUB-LAJNSNA ZA STAKLO  
SISTEM 700



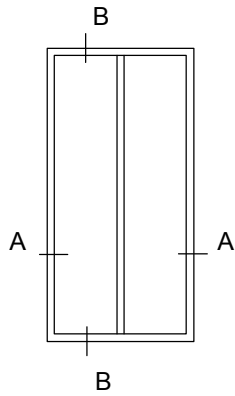
# FIKSNI PROZOR SA STUBOM SISTEM 700

## LEGENDA

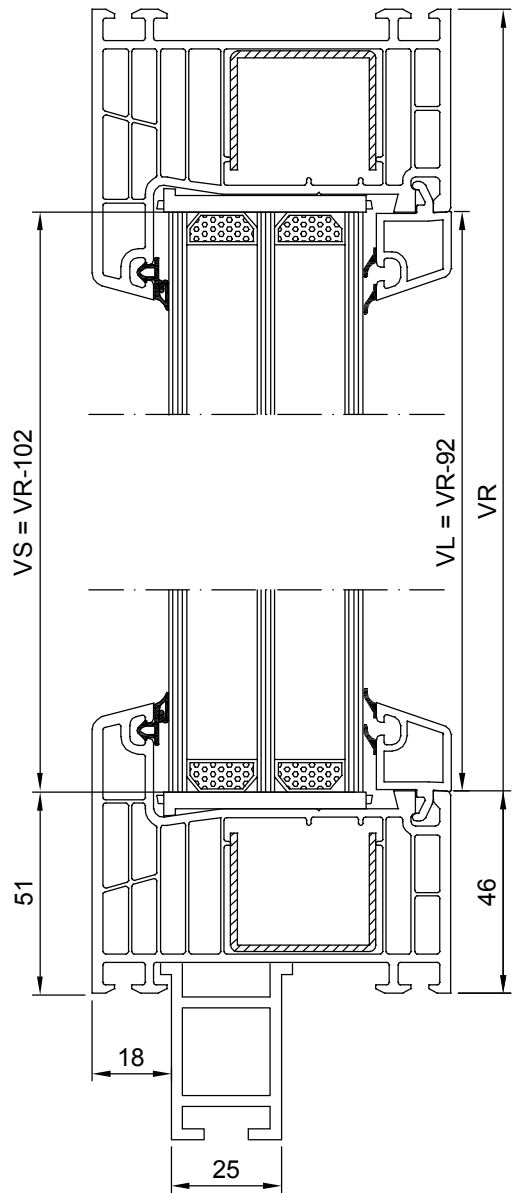
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 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



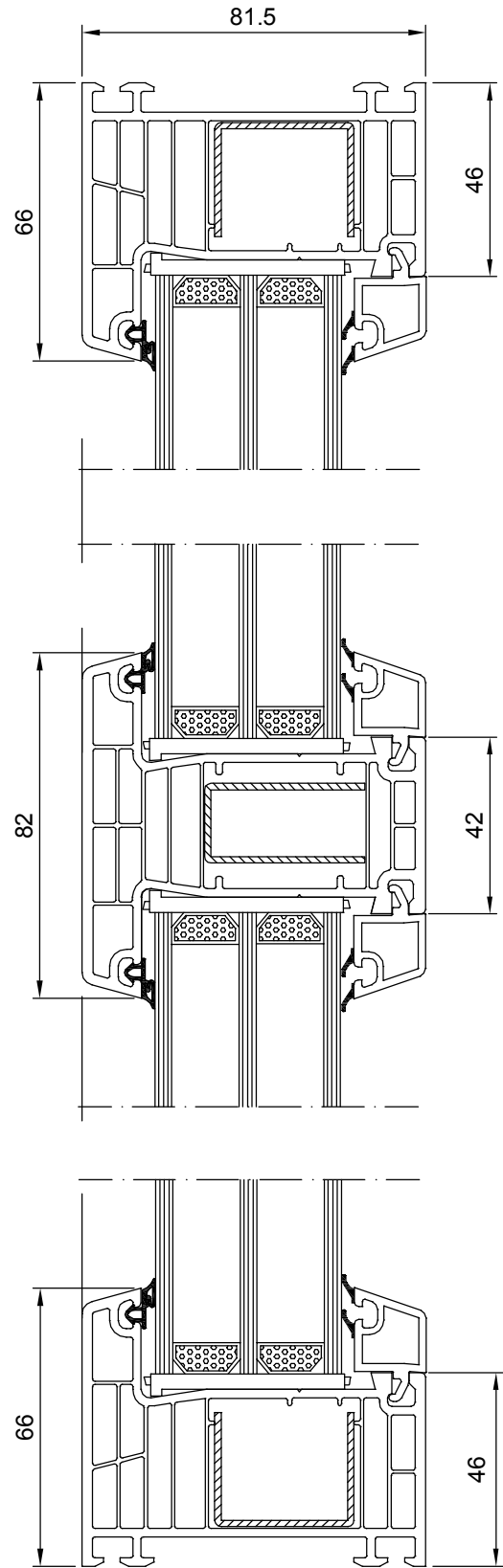
# FIKSNI PROZOR SA STUBOM SISTEM 700



PRESEK "B-B"



PRESEK "A-A"

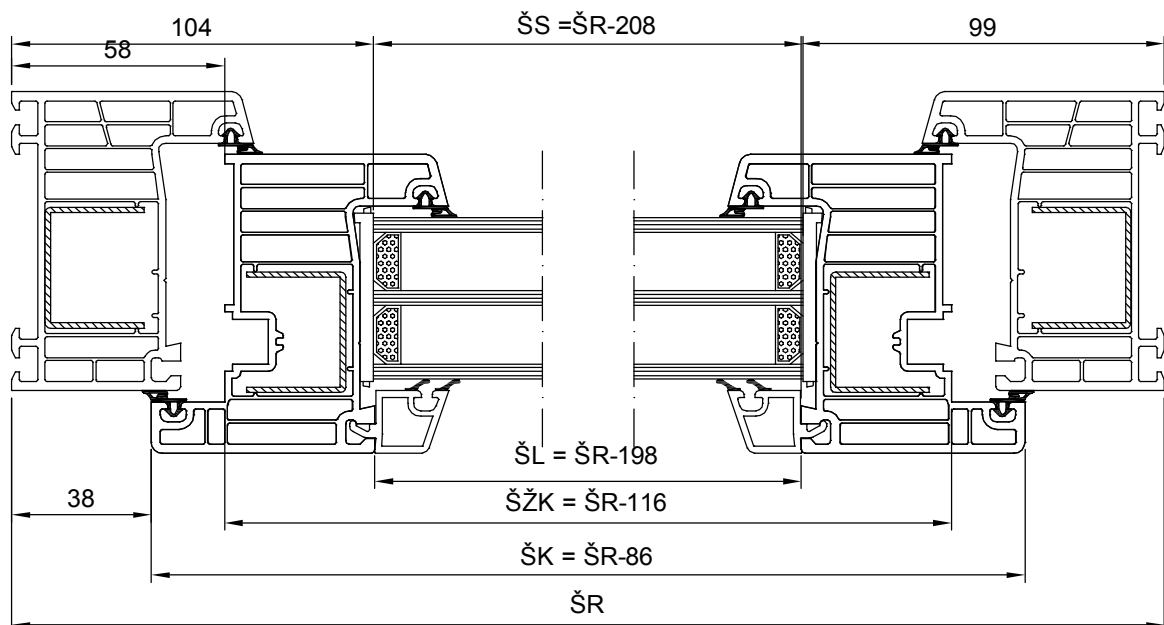
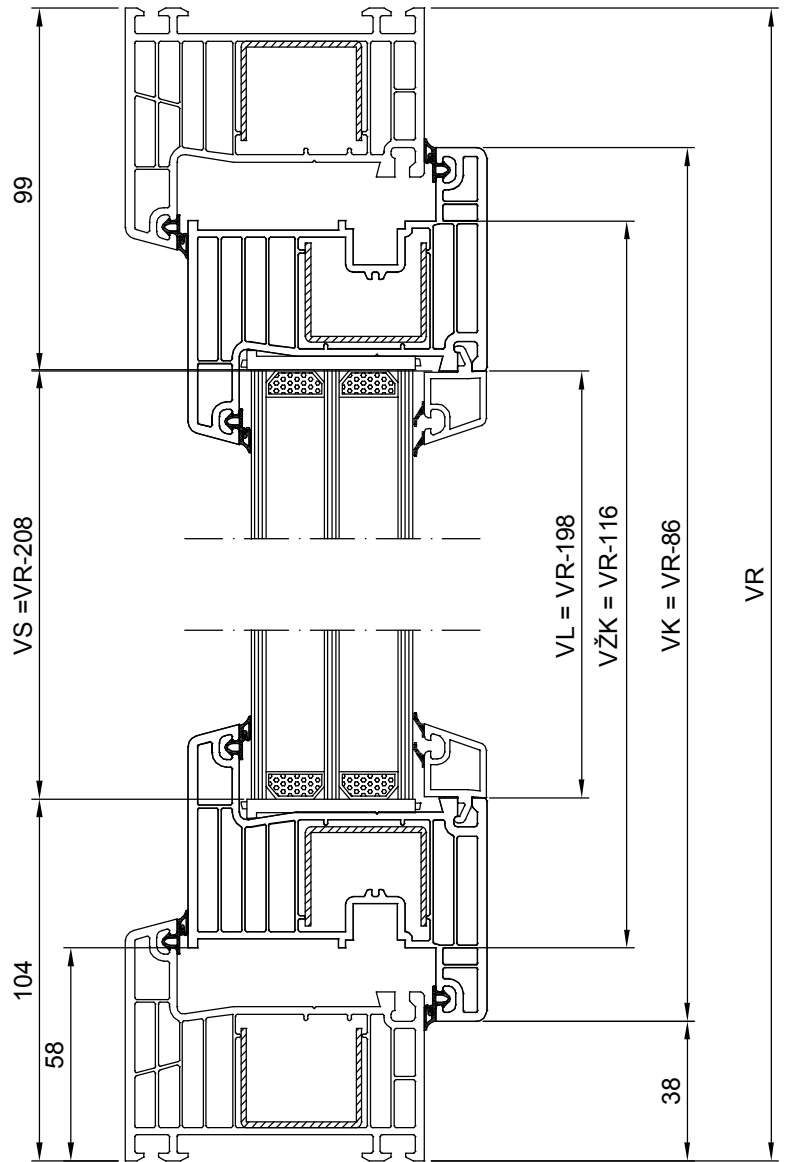
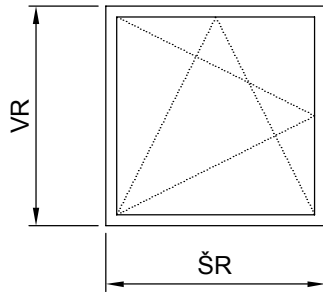




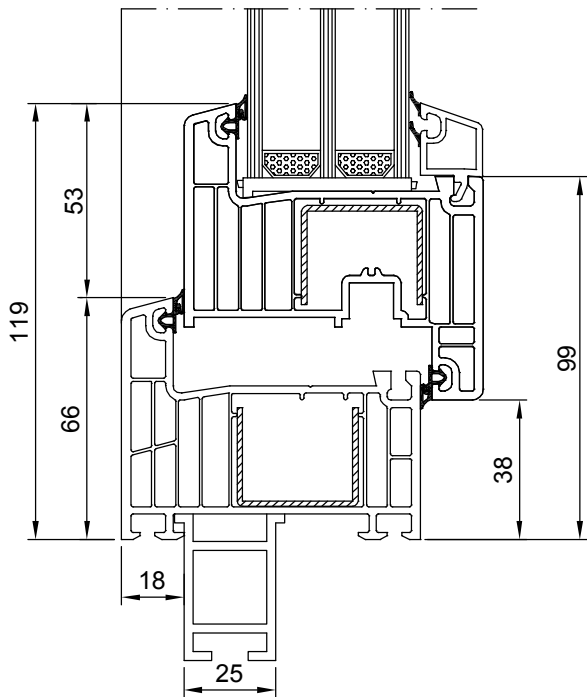
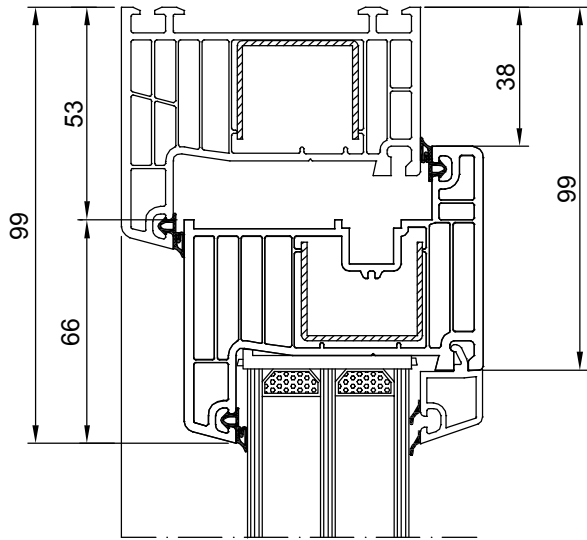
# JEDNOKRILNI PROZOR SISTEM 700

## LEGENDA

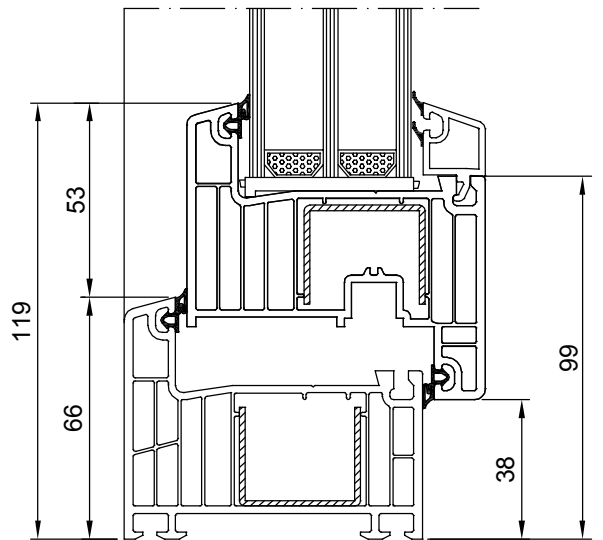
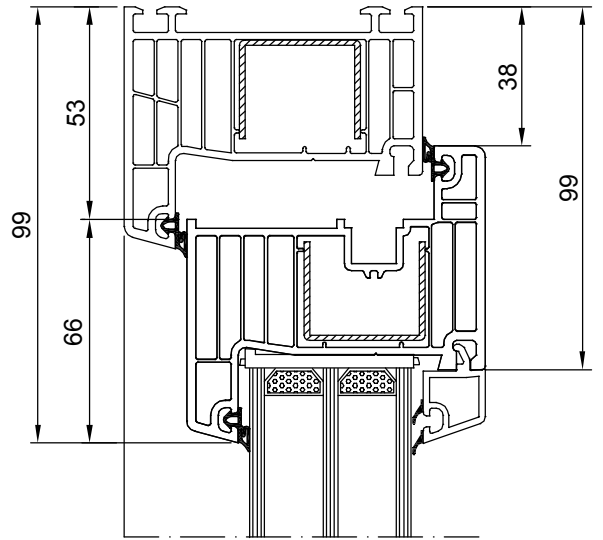
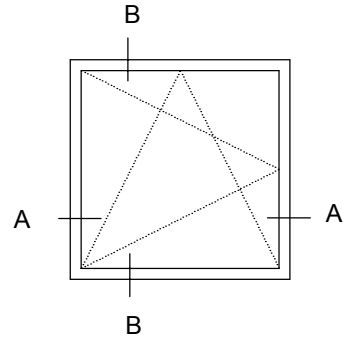
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 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
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 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# JEDNOKRILNI PROZOR SISTEM 700

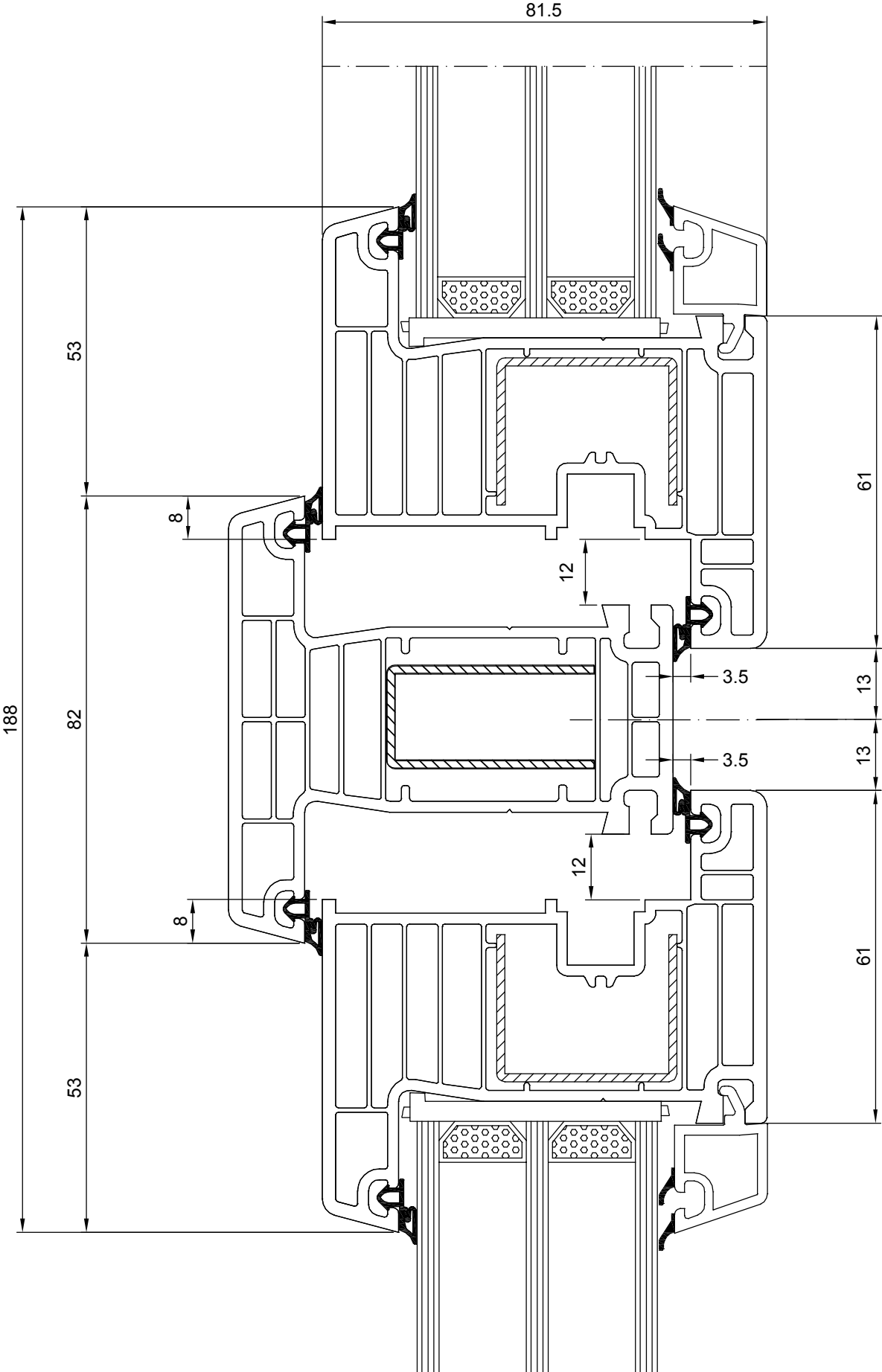


PRESEK "B-B"

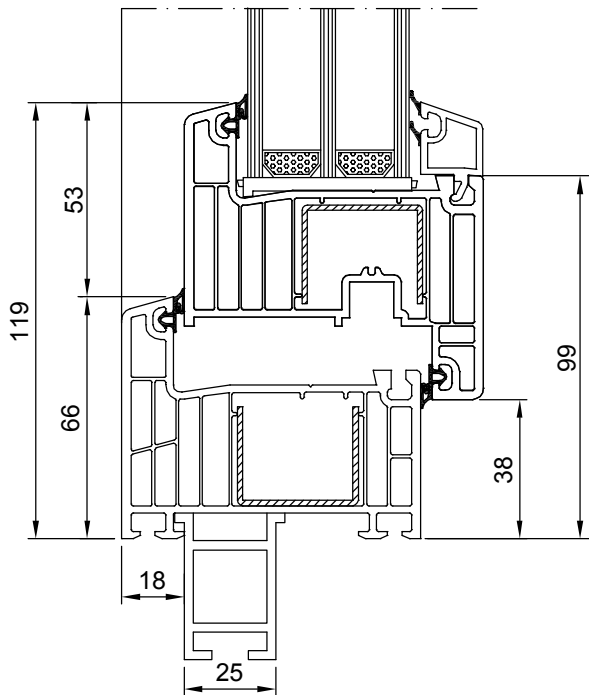
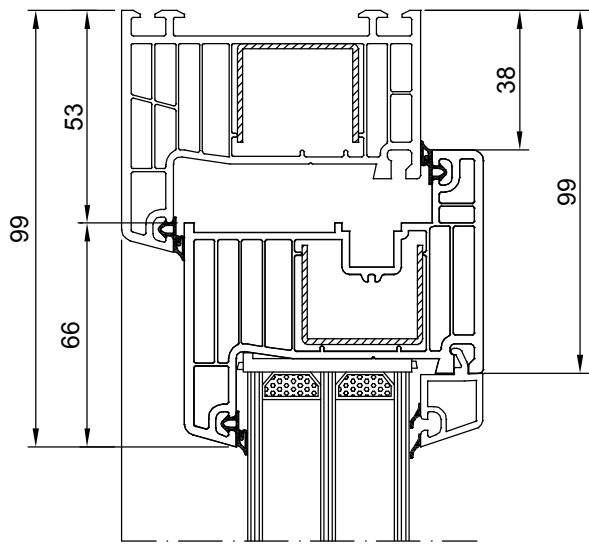
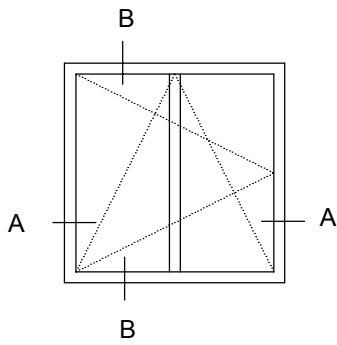


PRESEK "A-A"

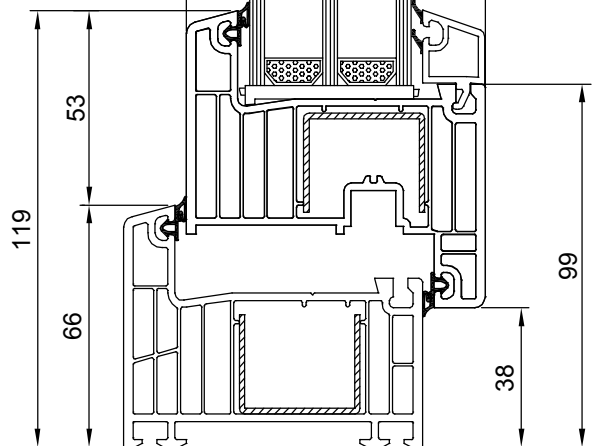
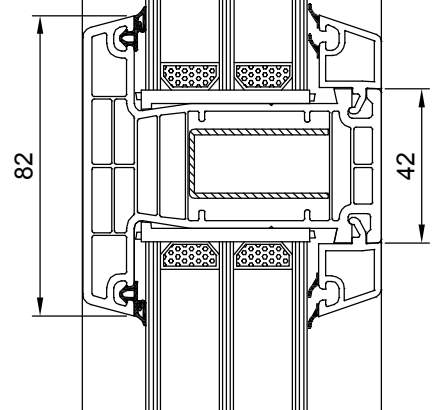
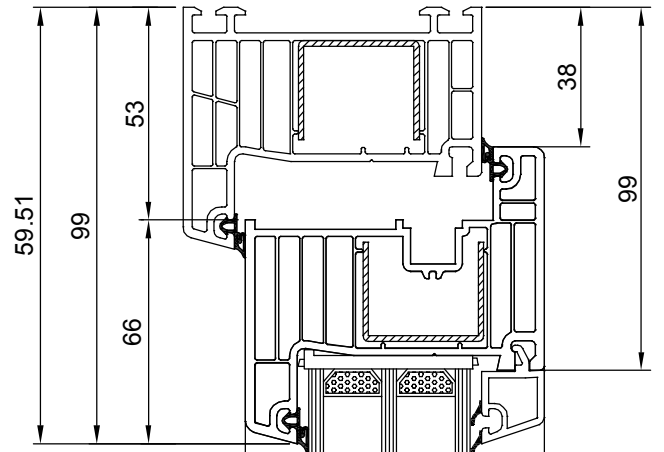
PRESEK PROZORA  
KRILO-STUB-KRILO  
SISTEM 700



# JEDNOKRILNI PROZOR SA STUBOM SISTEM 700

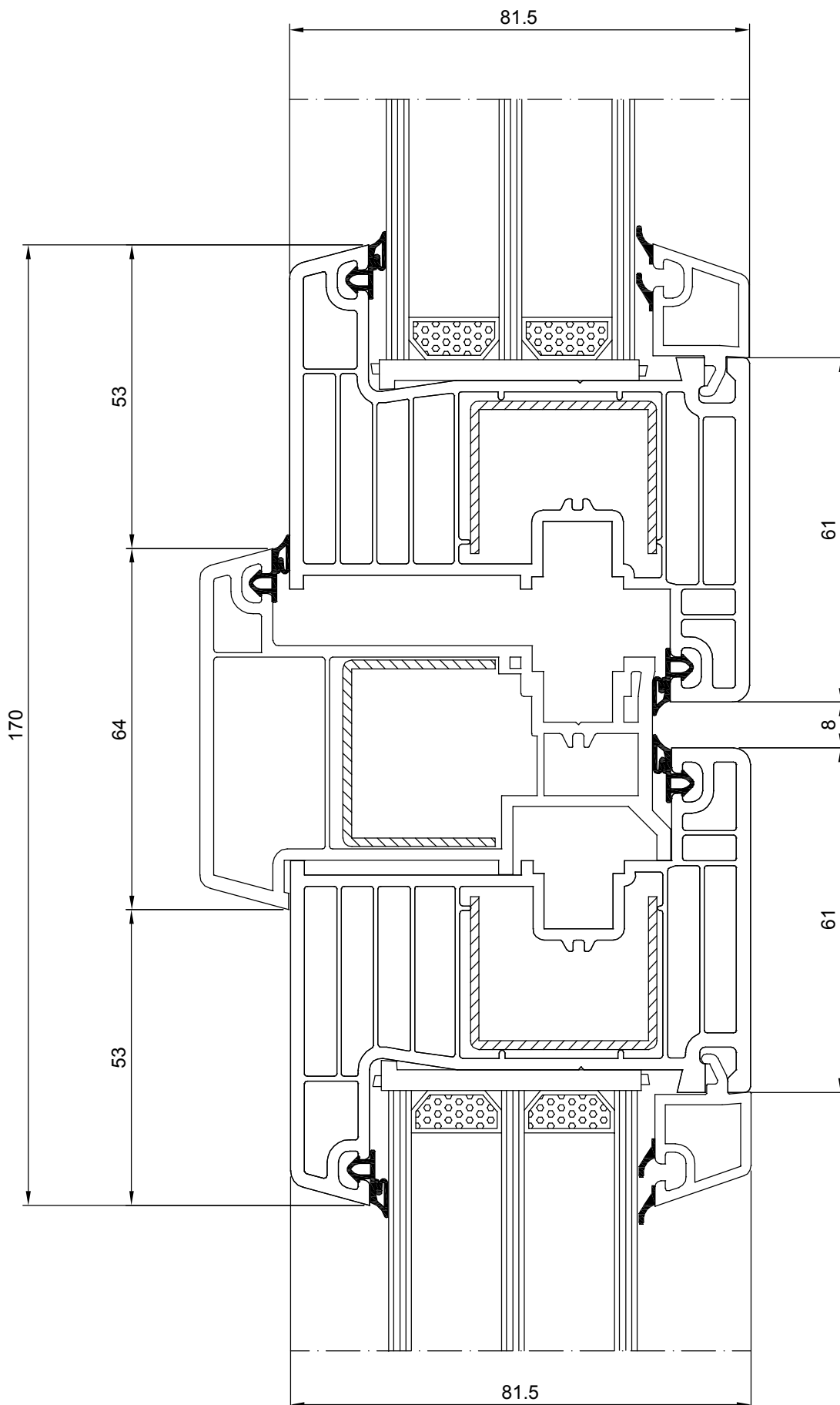


PRESEK "B-B"

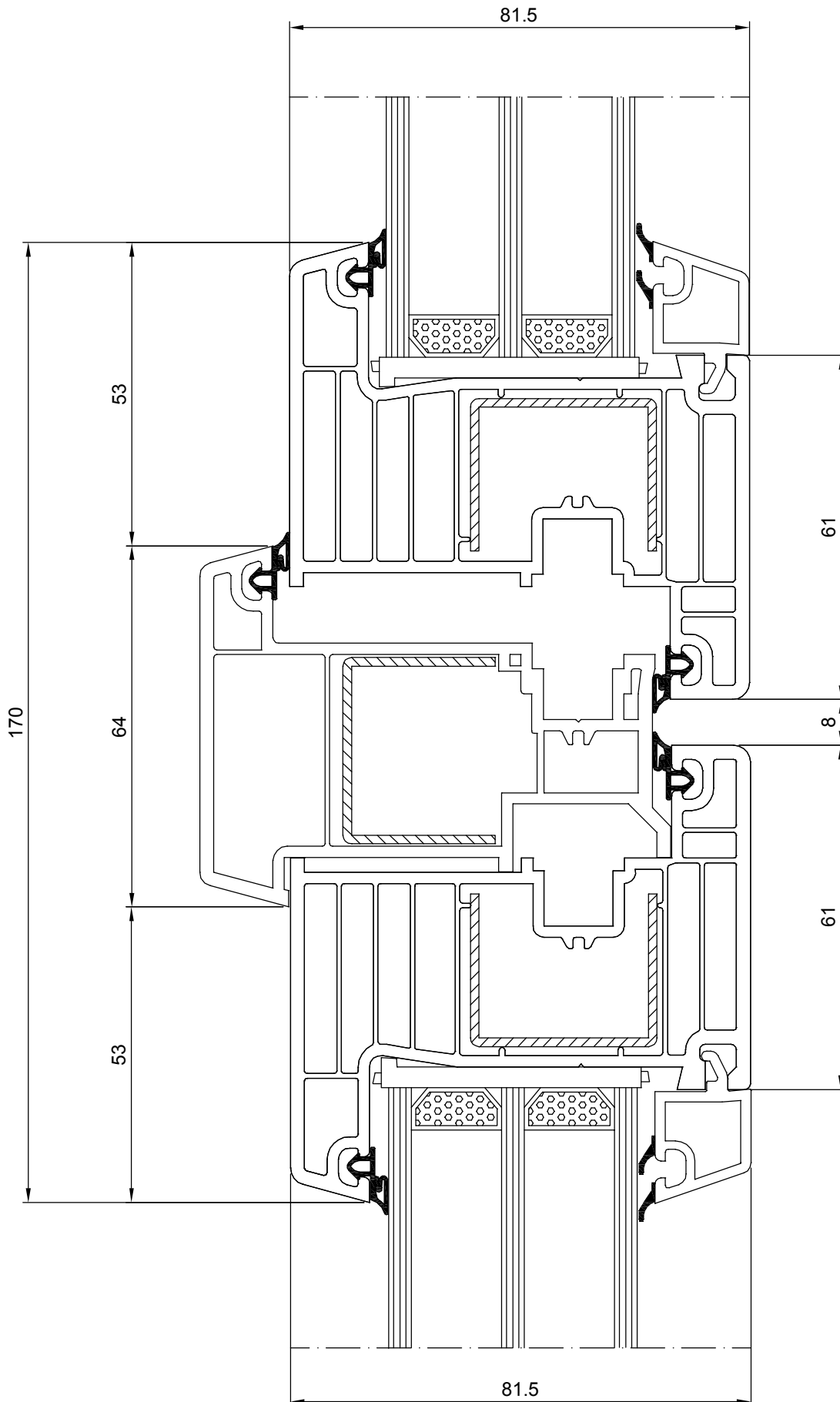


PRESEK "A-A"

# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 700



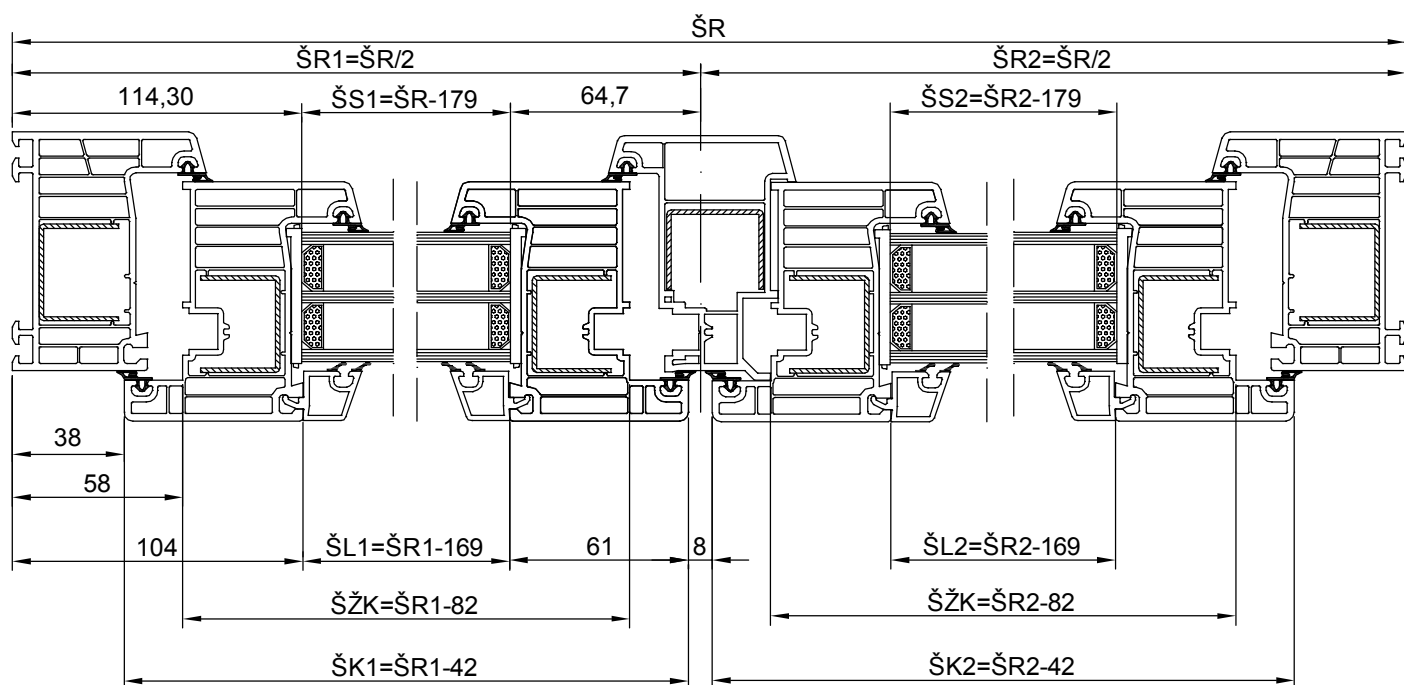
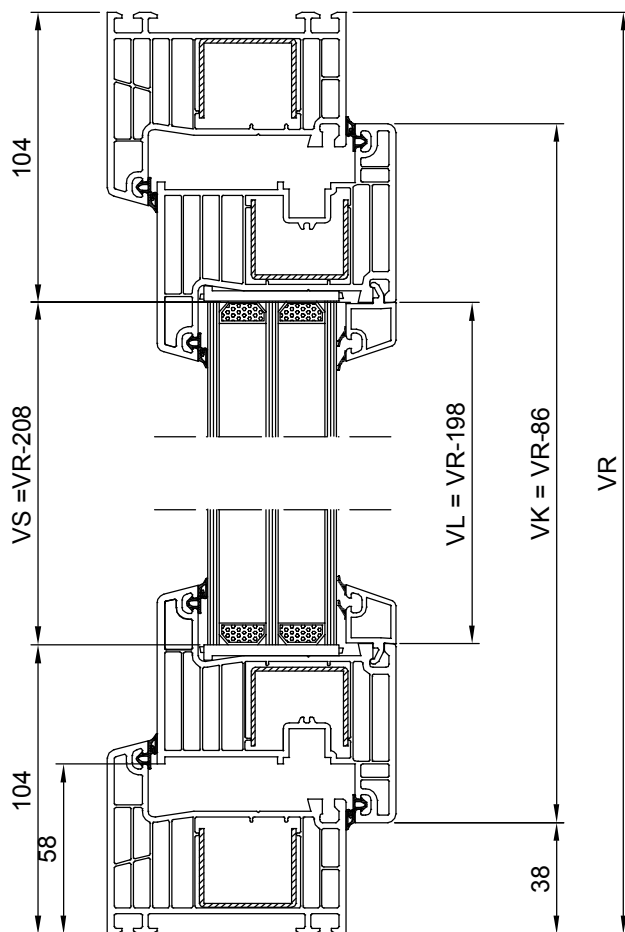
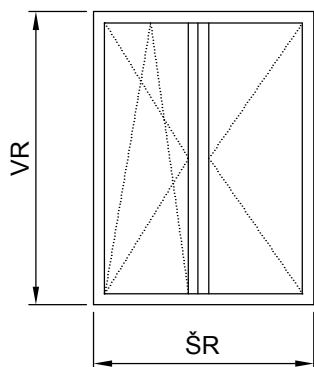
# PRESEK PROZORA KRILO-PREKLOP-KRILO SISTEM 700



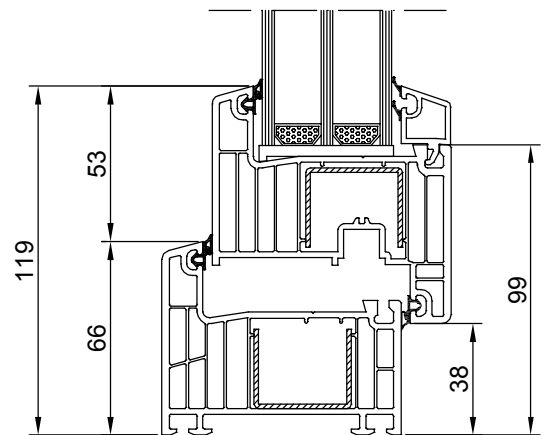
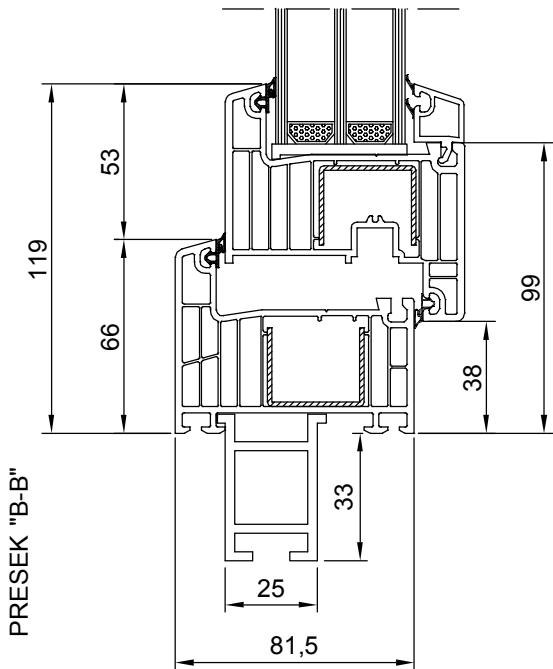
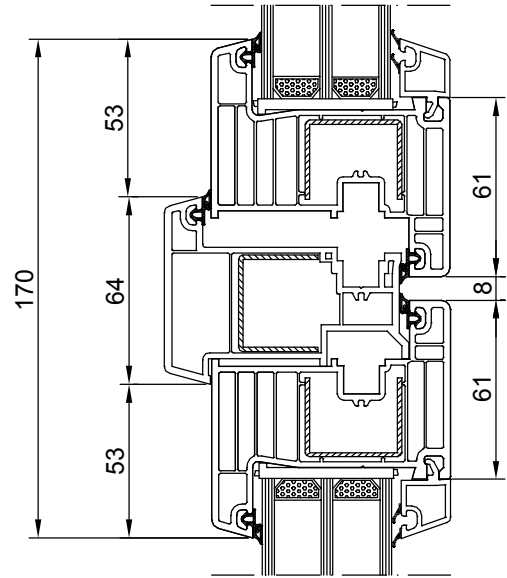
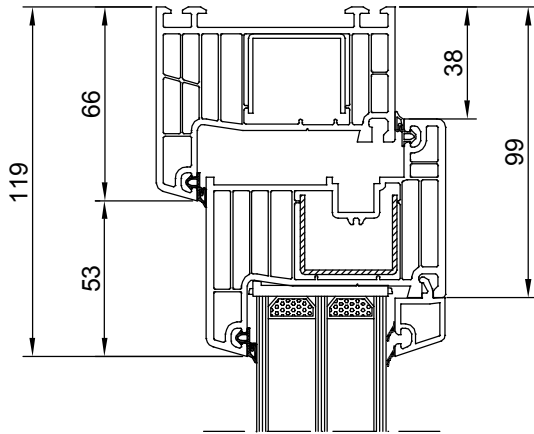
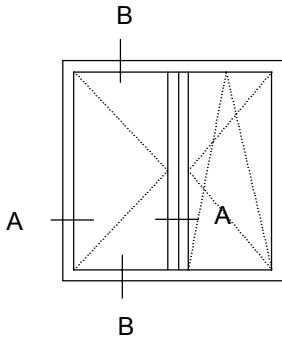
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 700

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJRBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



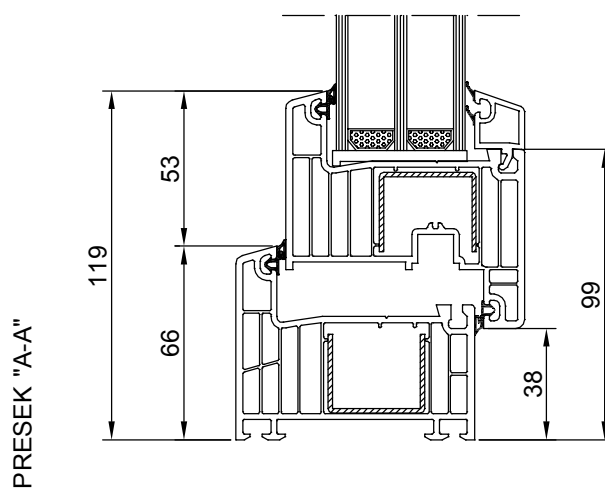
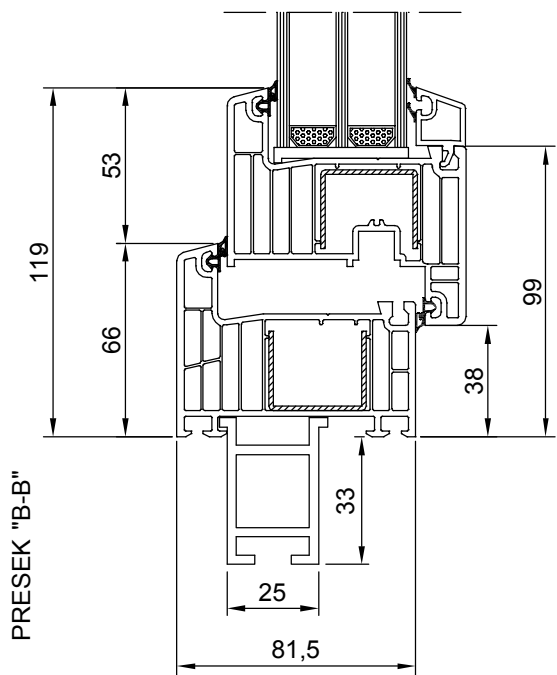
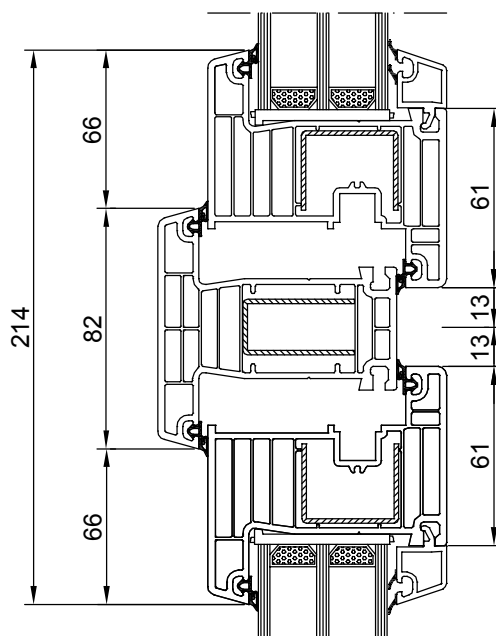
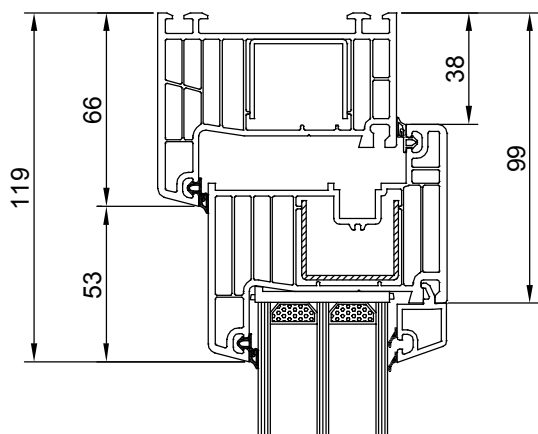
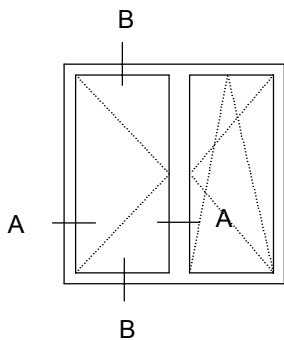
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 700







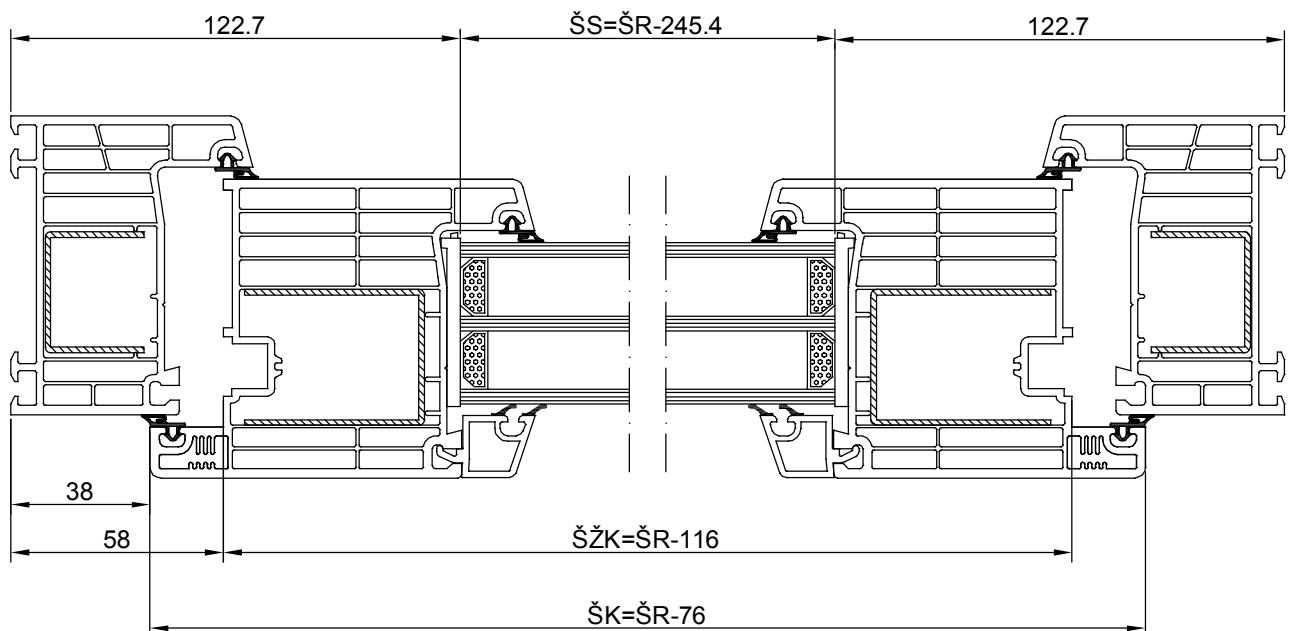
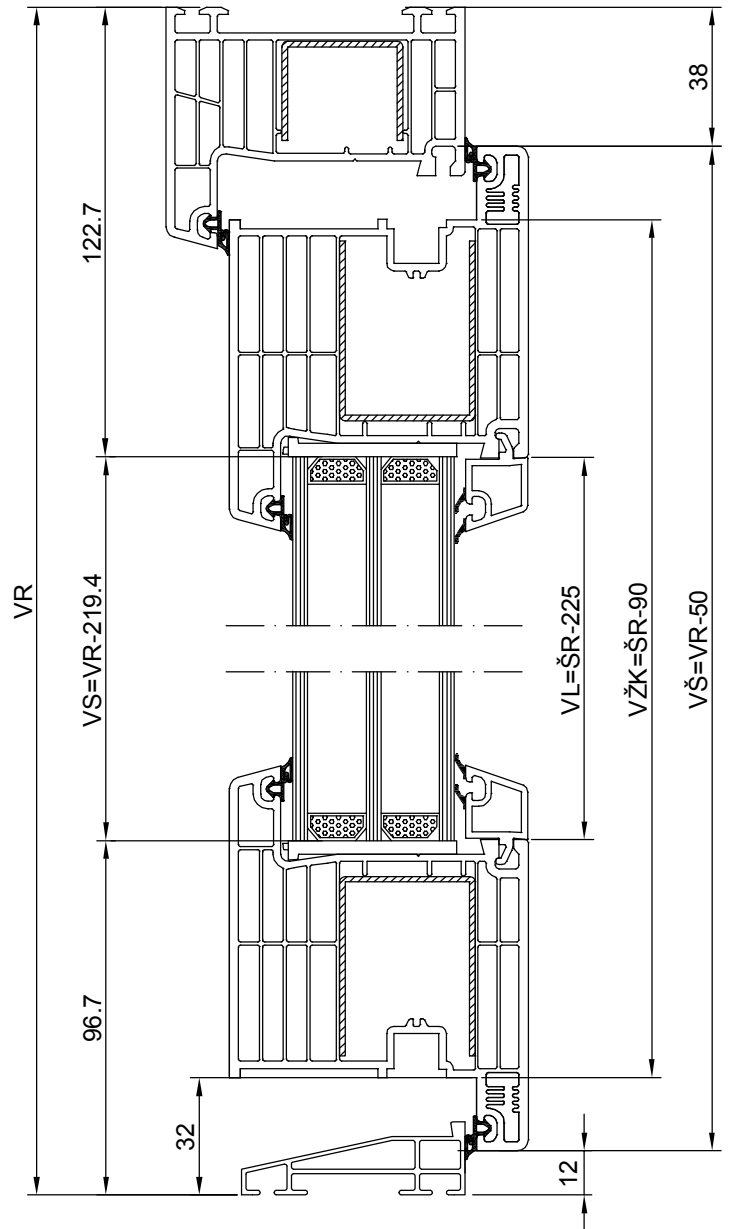
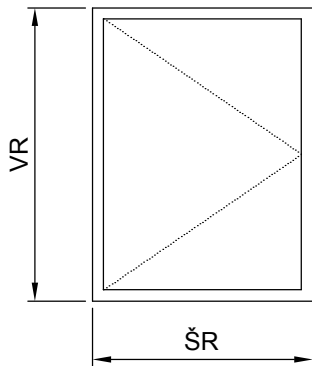
# DVOKRILNI PROZOR SA STUBOM SISTEM 700



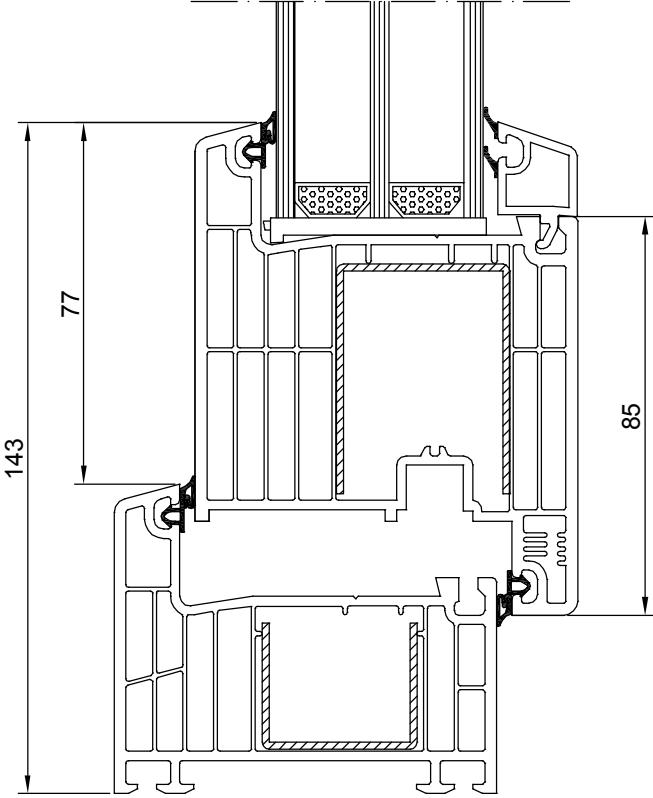
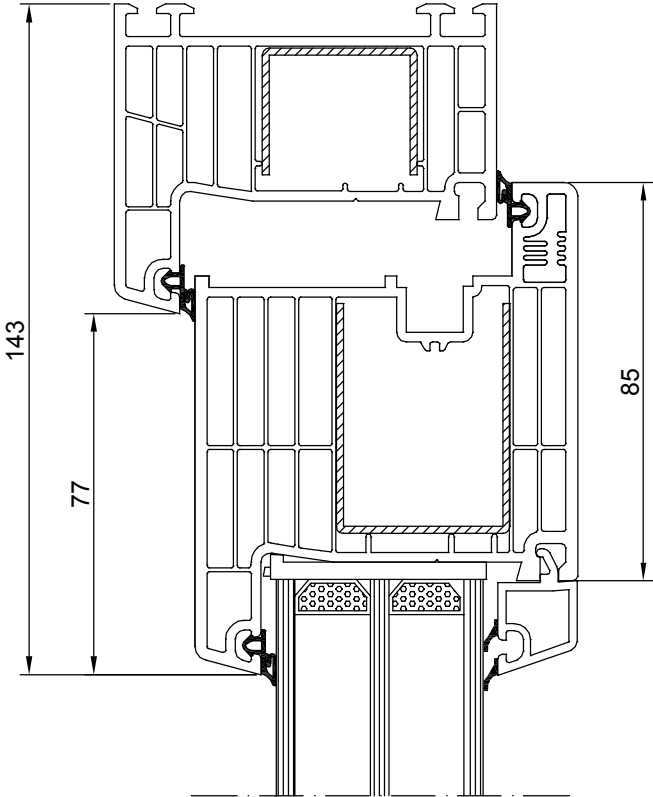
# ULAZNA VRATA SISTEM 700

## LEGENDA

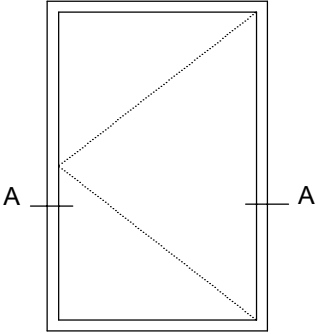
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



# ULAZNA VRATA SISTEM 700

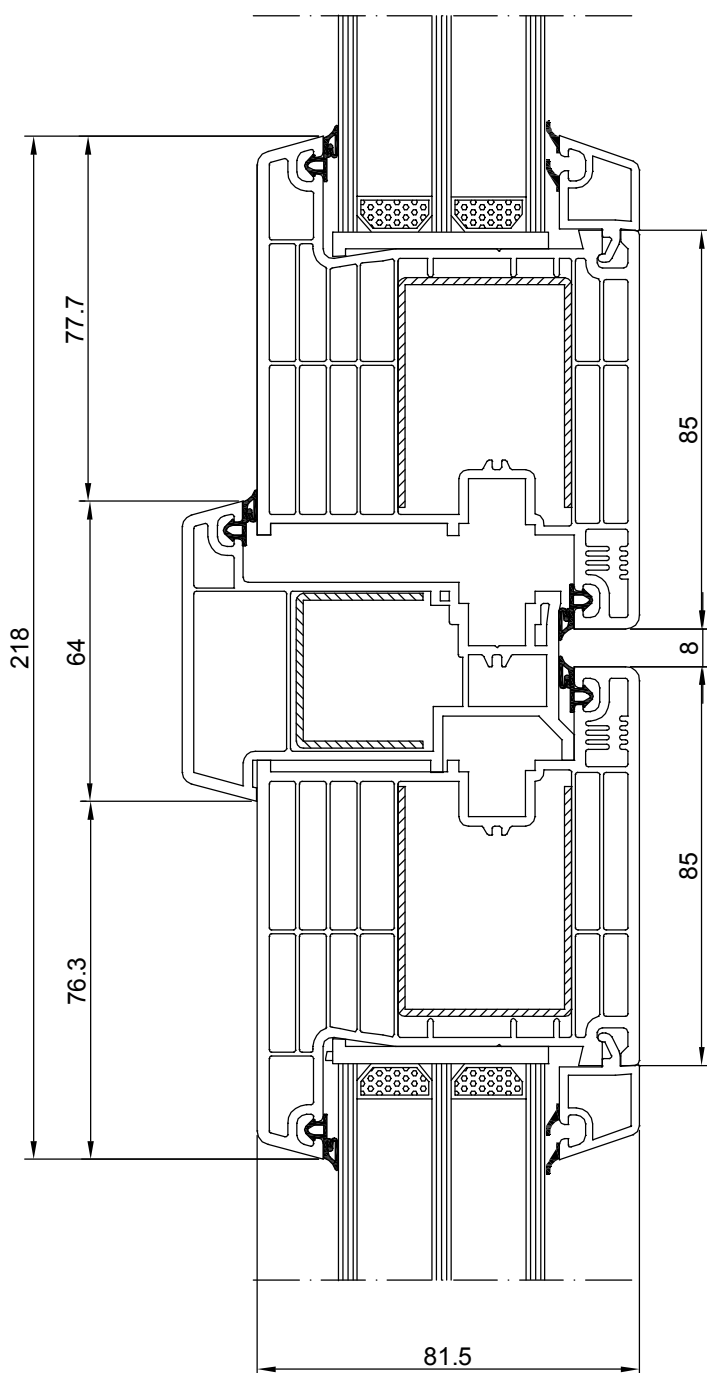


PRESEK "A-A"





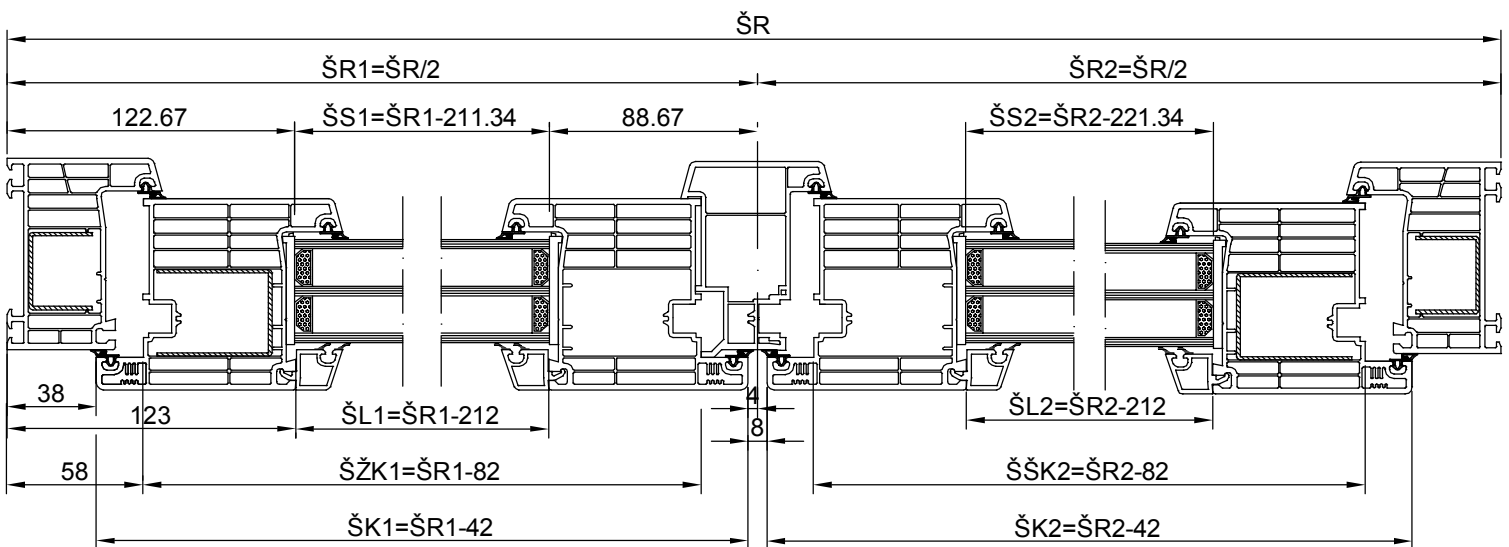
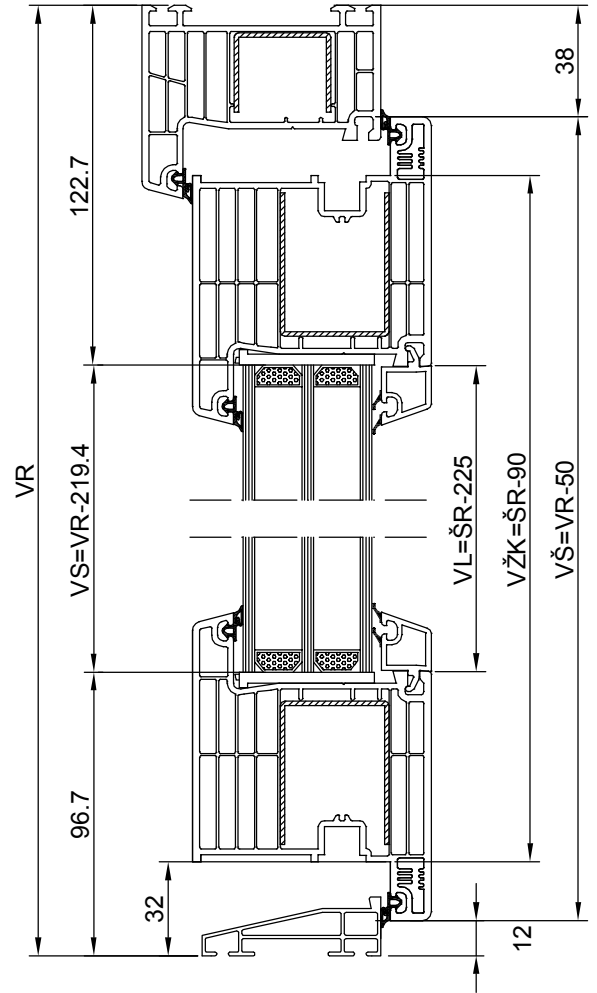
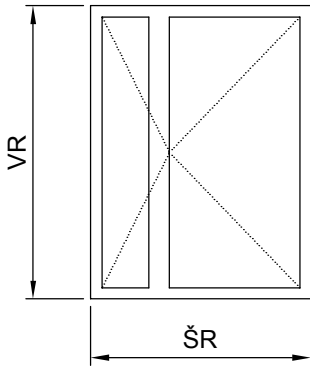
# PRESEK VRATA KRILO-PREKLOP-KRILO SISTEM 700



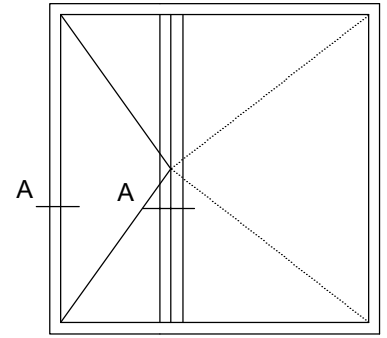
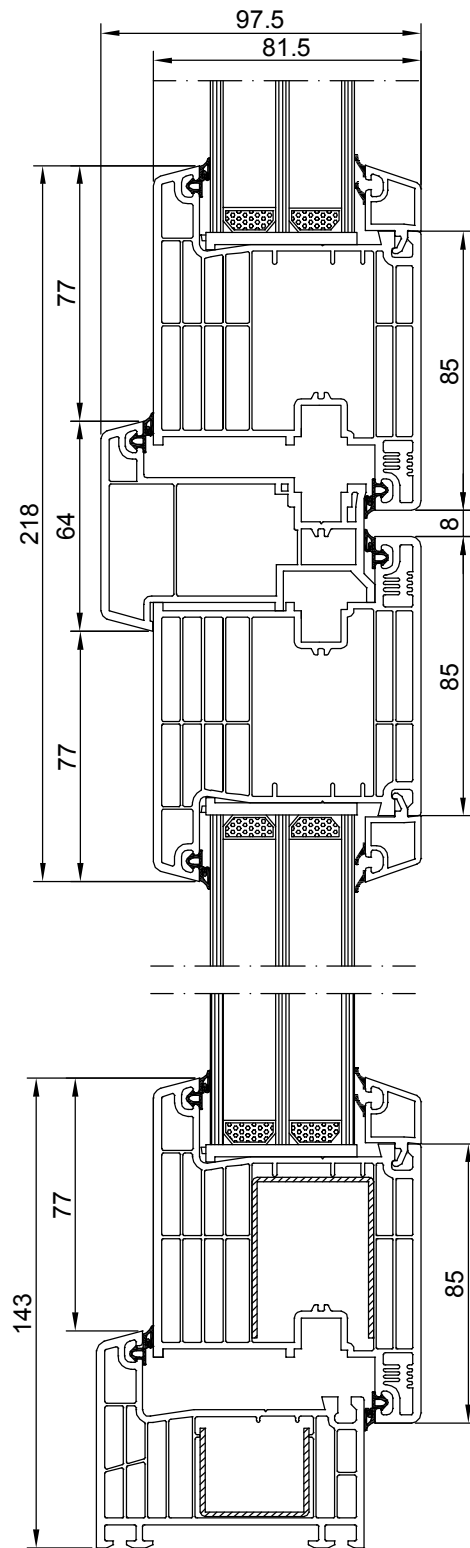
# DVOKRILNA ULAZNA VRATA SISTEM 700

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA

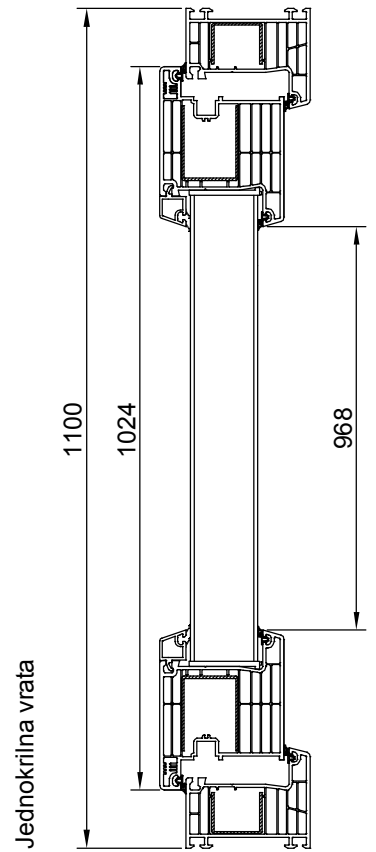
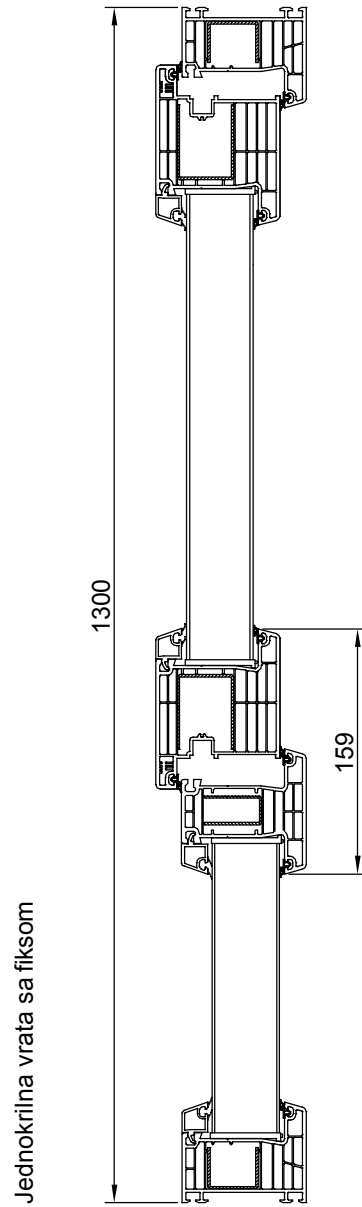
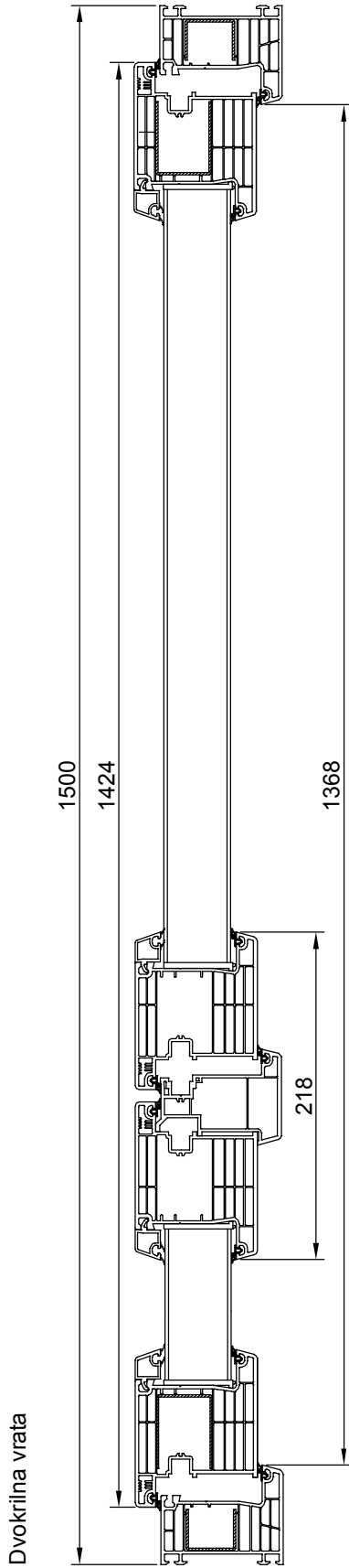


# DVOKRILNA ULAZNA VRATA SISTEM 700

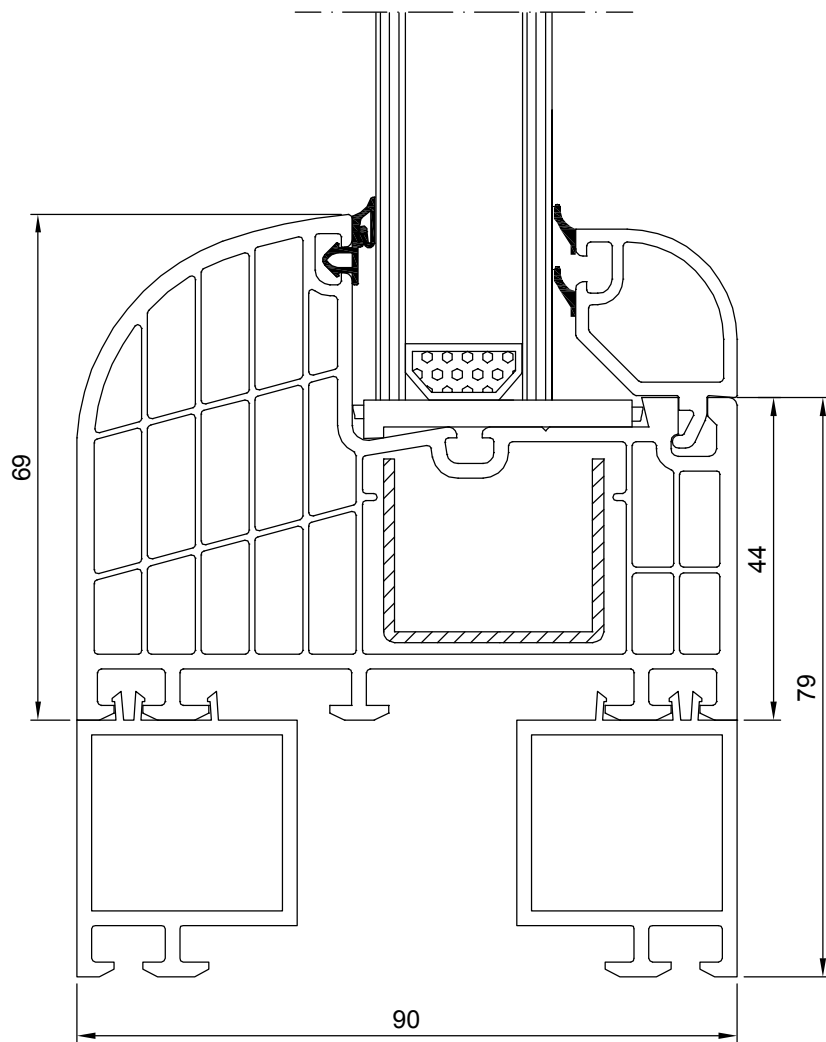




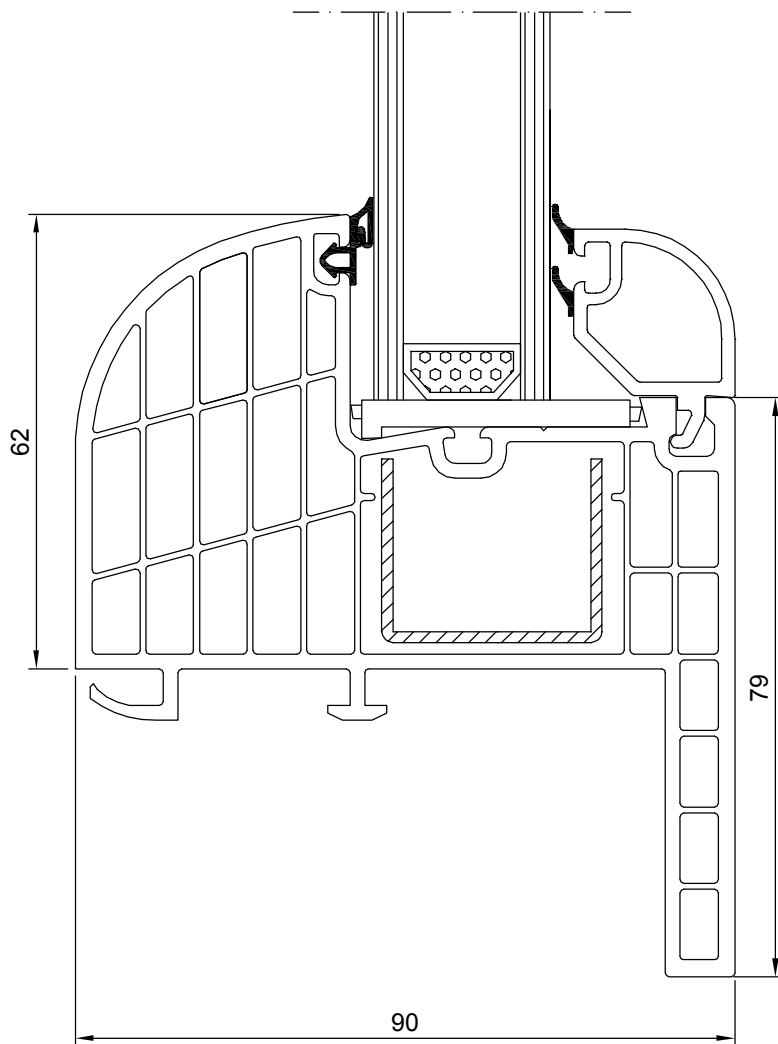
# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA SISTEM 700



PRESEK PROZORA  
NASTAVAK RAMA - RAM  
SISTEM 800



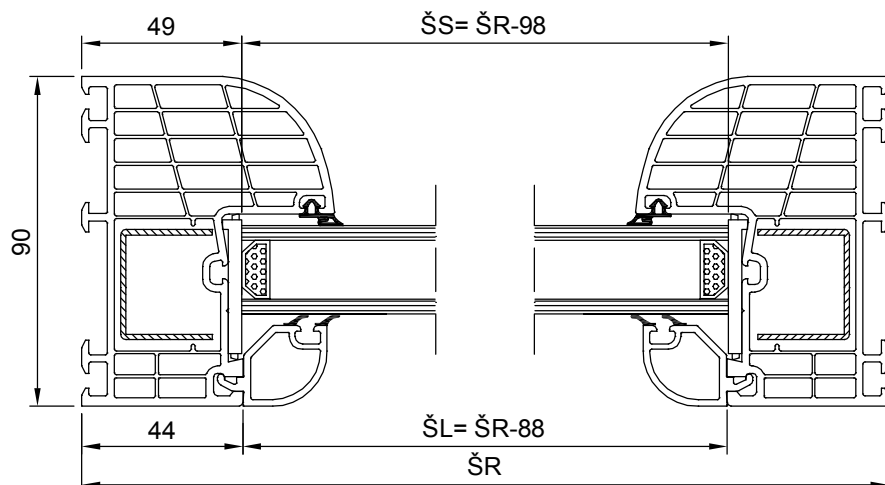
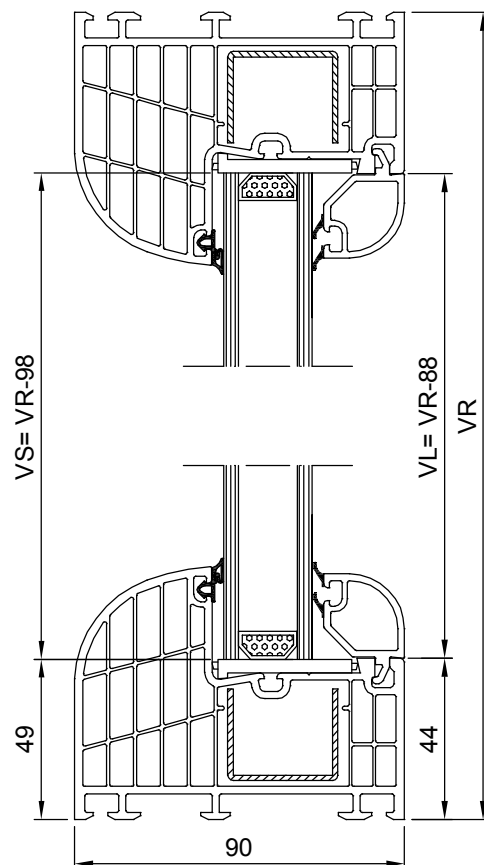
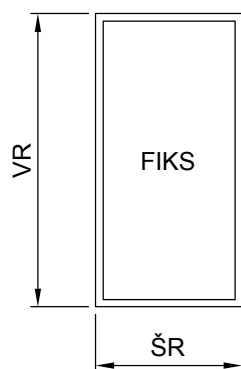
PRESEK PROZORA  
RAM SA PEROM  
SISTEM 800



# FIKSNI PROZOR SISTEM 800

## LEGENDA

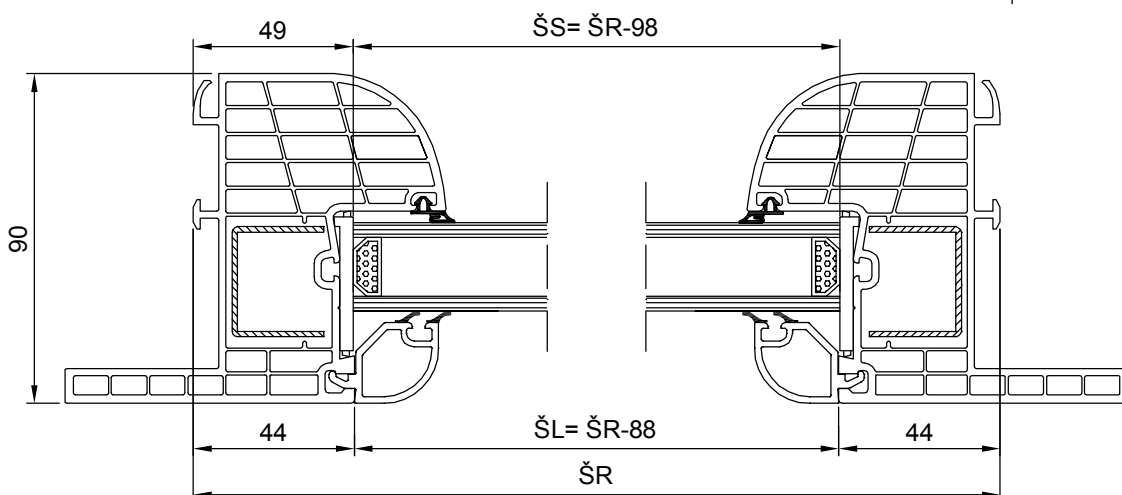
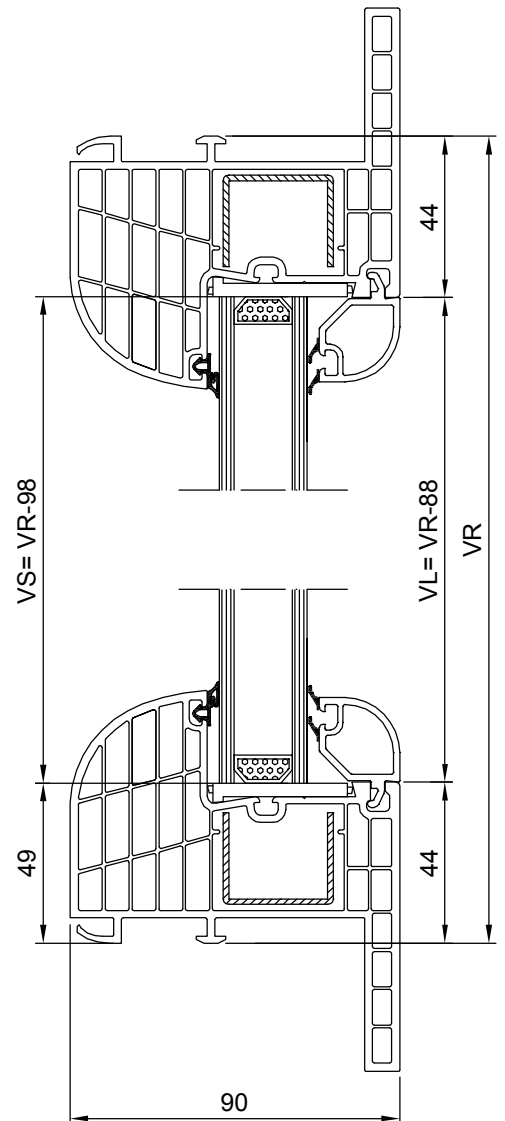
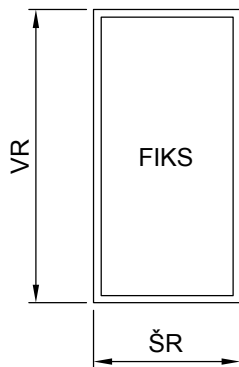
ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



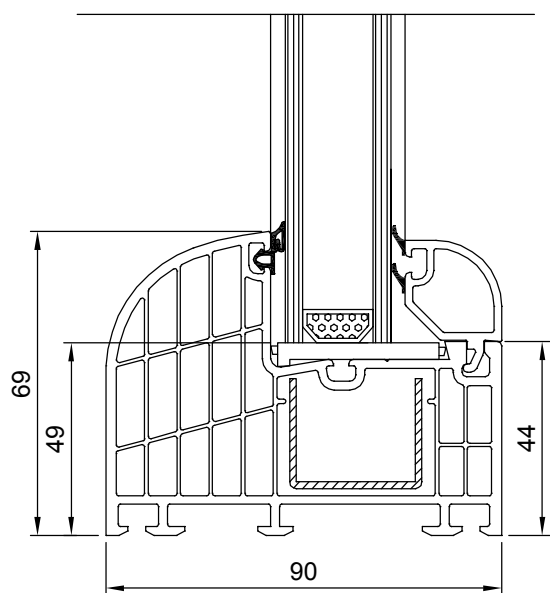
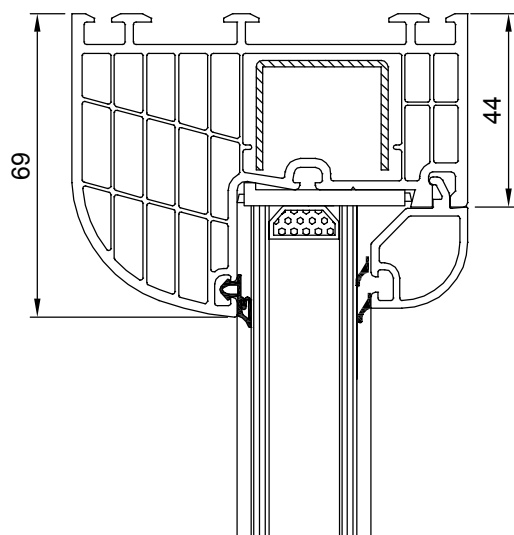
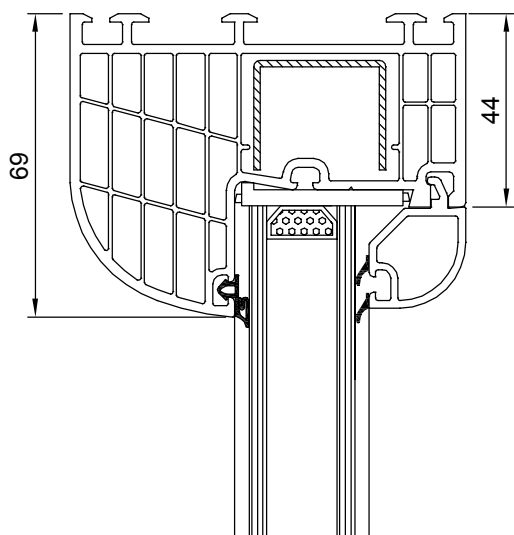
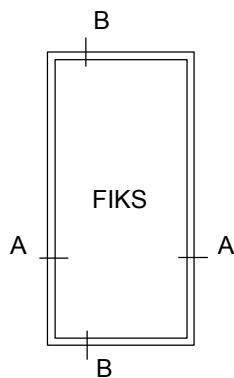
# FIKSNI PROZOR RAM SA PEROM SISTEM 800

## LEGENDA

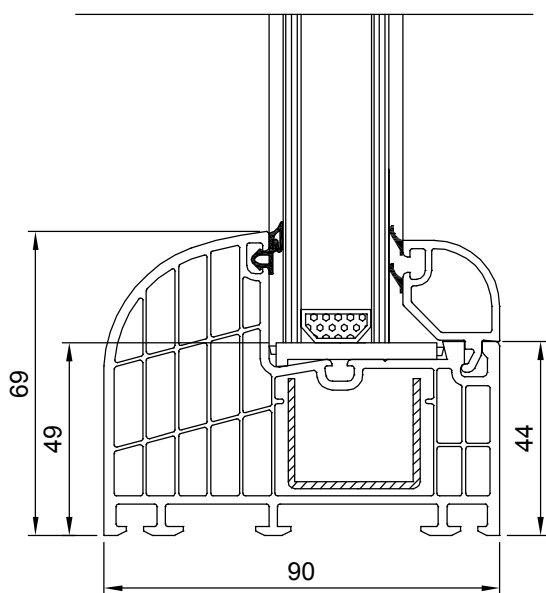
ŠR= ŠIRINA RAMA  
VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



# FIKSNI PROZOR SISTEM 800

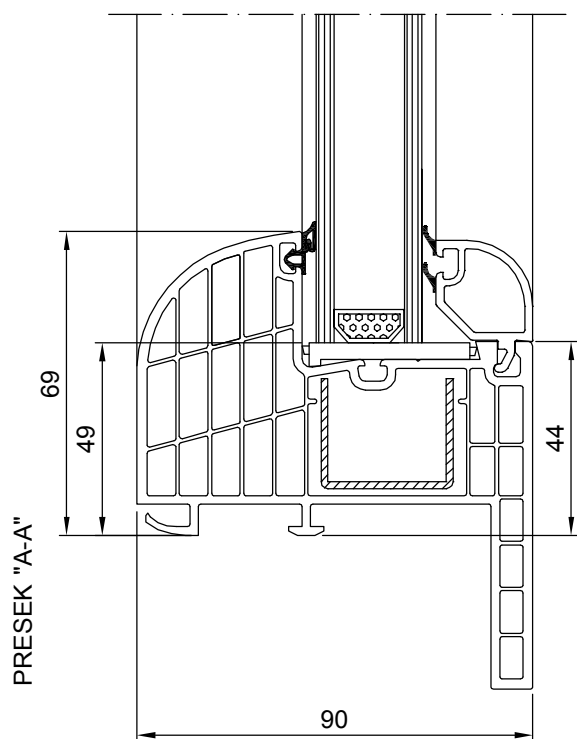
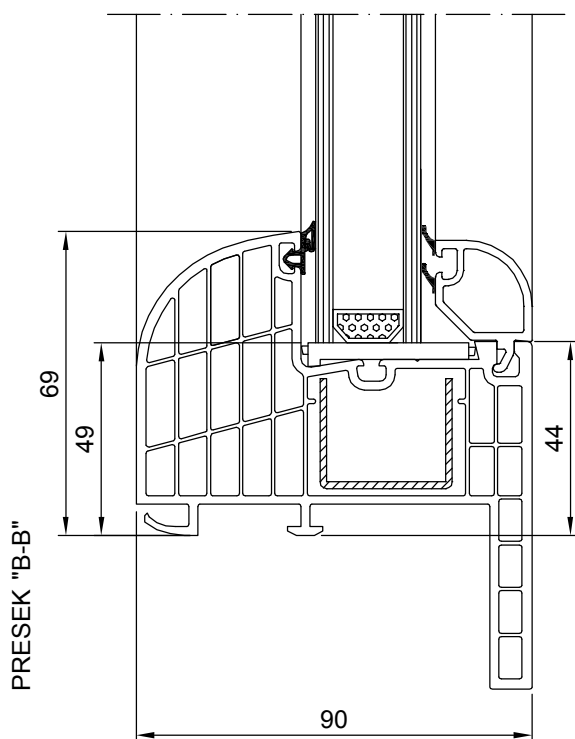
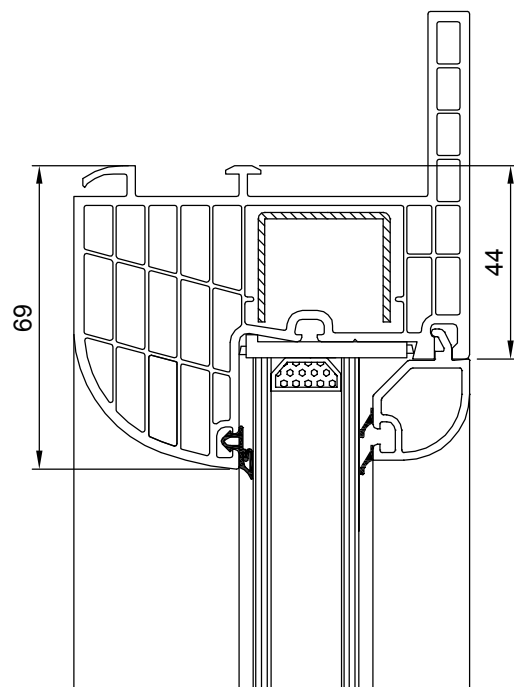
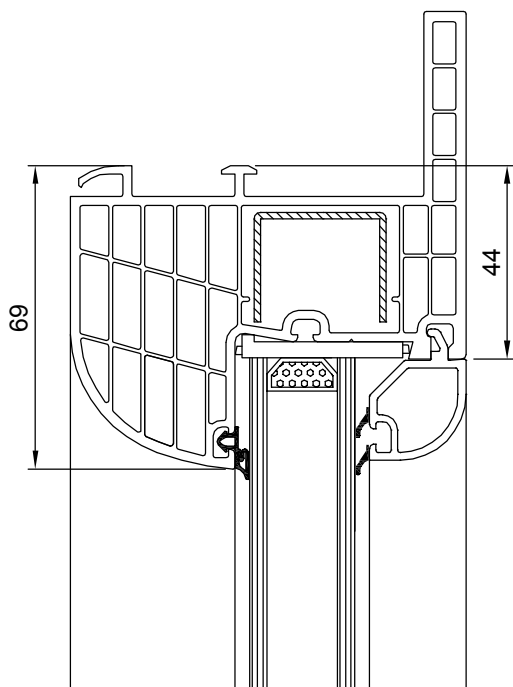
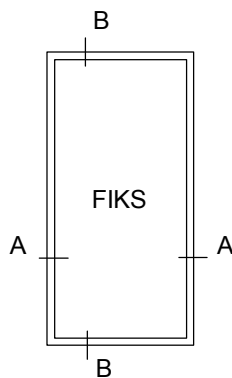


PRESEK "B-B"



PRESEK "A-A"

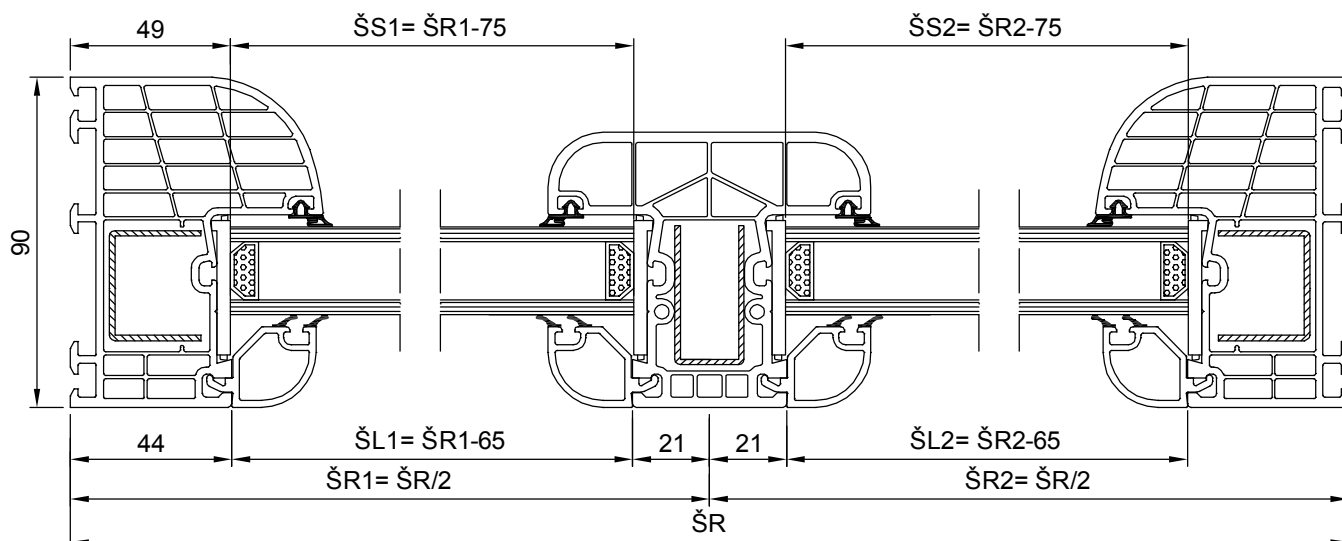
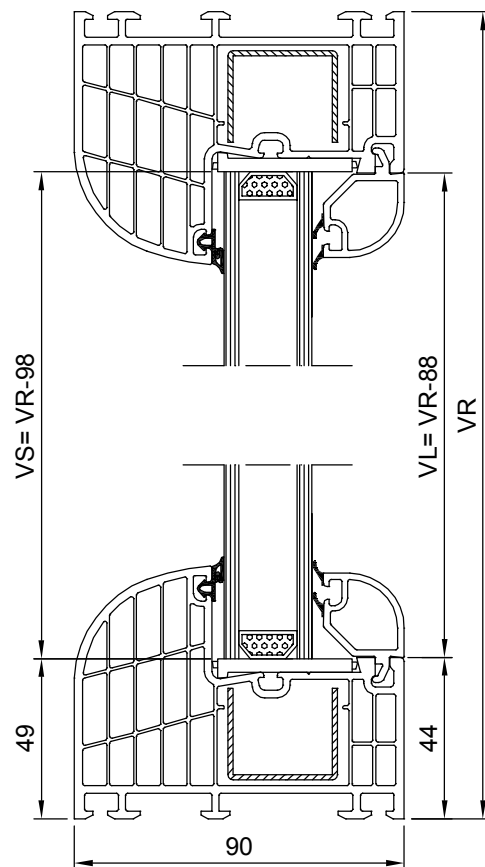
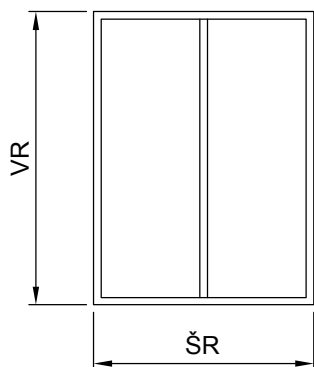
# FIKSNI PROZOR RAM SA PEROM SISTEM 800



# FIKSNI PROZOR SA STUBOM SISTEM 800

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA

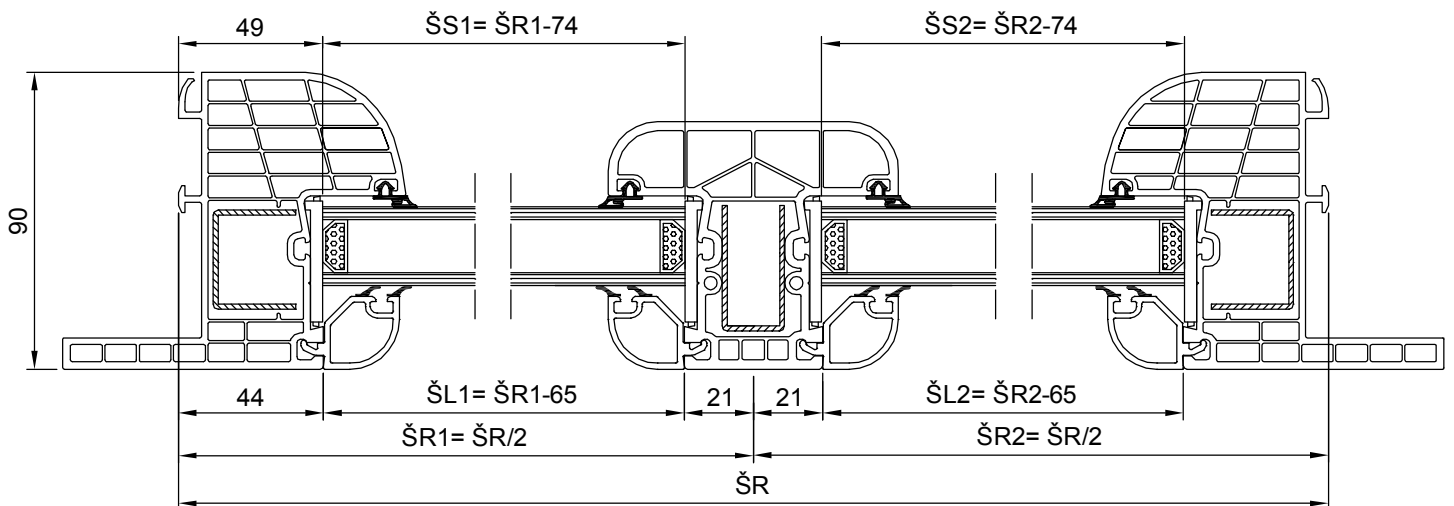
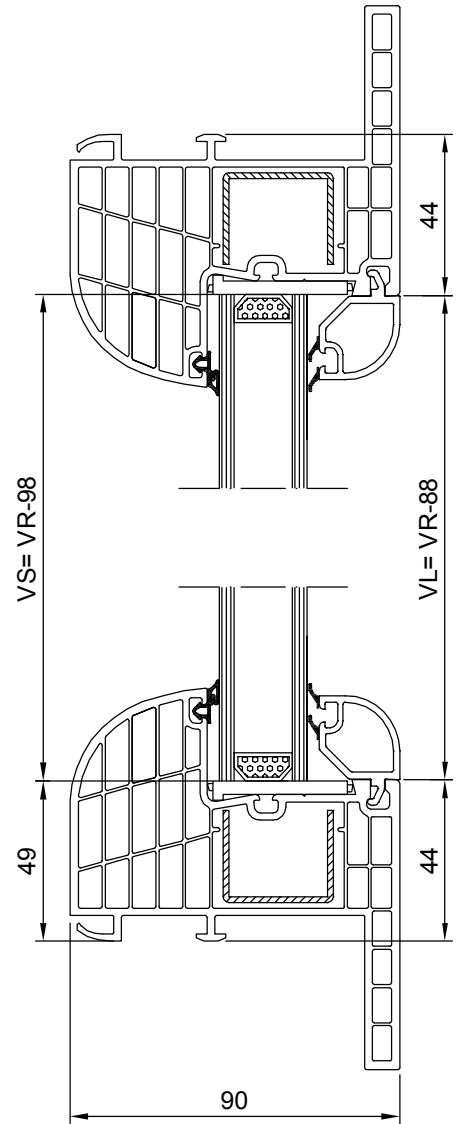
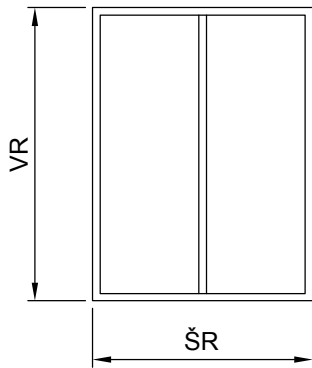




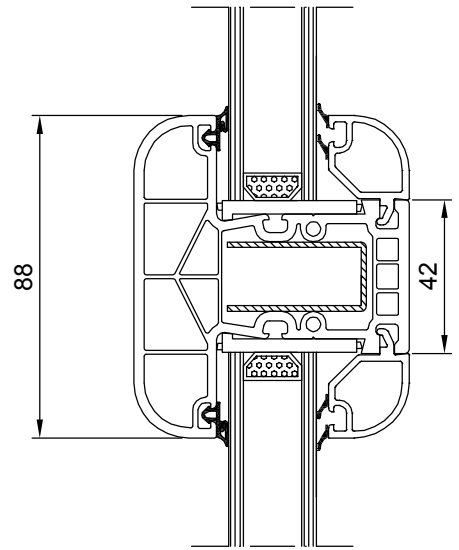
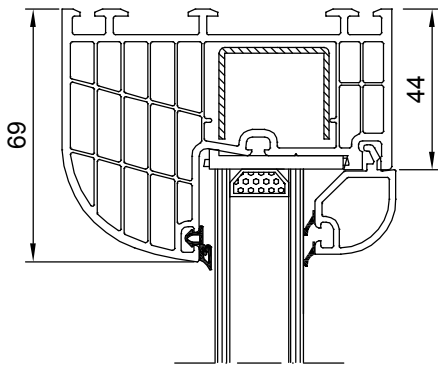
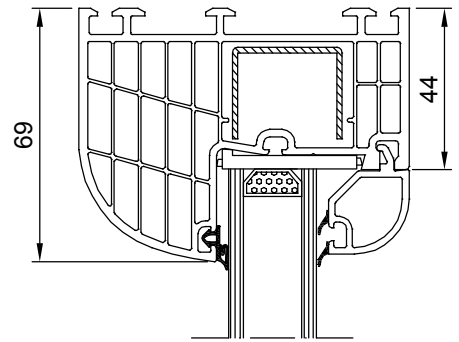
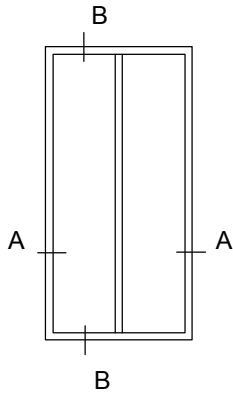
# FIKSNI PROZOR SA STUBOM RAM SA PEROM SISTEM 800

## LEGENDA

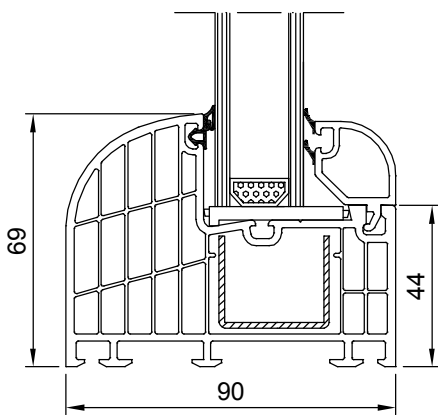
ŠR= ŠIRINA RAMA  
VR= VISINA RAMA  
ŠL=ŠIRINA LAJSNE  
VL=VISINA LAJSNE  
ŠS= ŠIRINA STAKLA  
VS= VISINA STAKLA



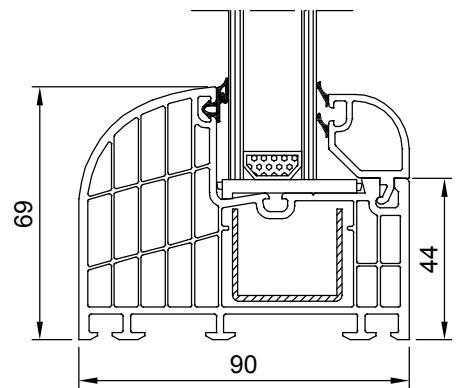
# FIKSNI PROZOR SA STUBOM SISTEM 800



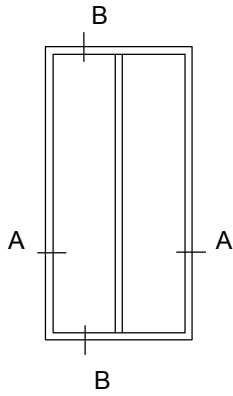
PRESEK "B-B"



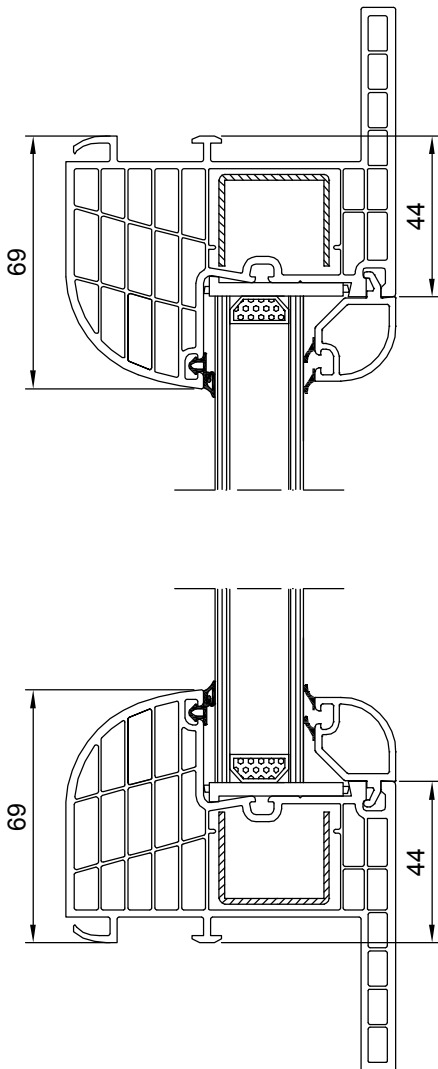
PRESEK "A-A"



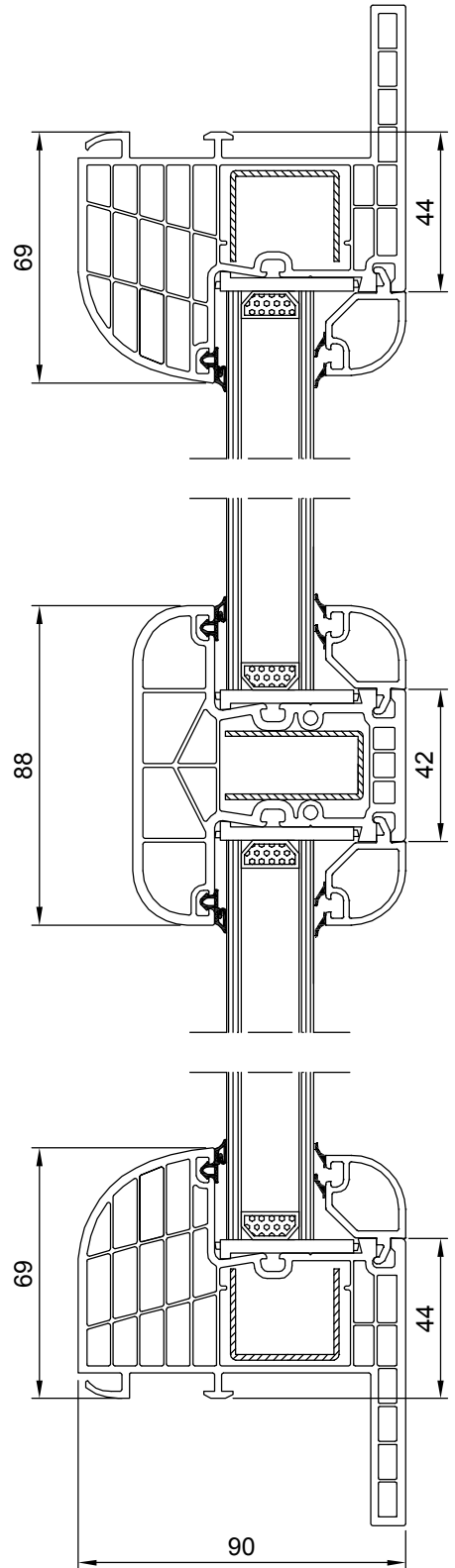
# FIKSNI PROZOR SA STUBOM RAM SA PEROM SISTEM 800



PRESEK "B-B"



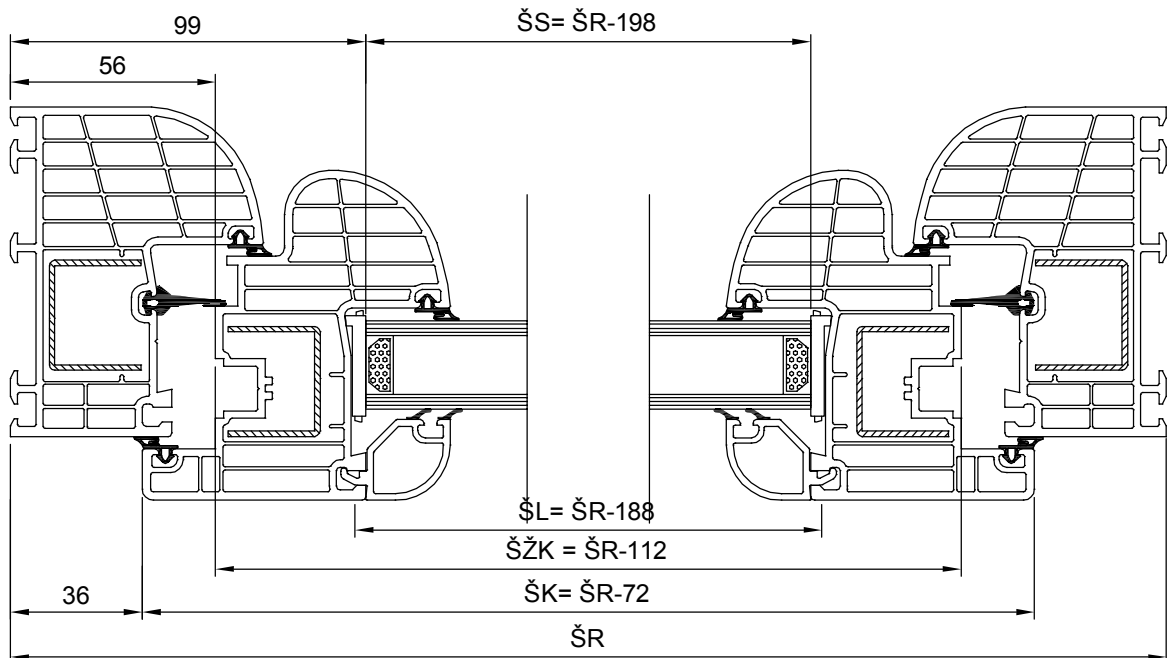
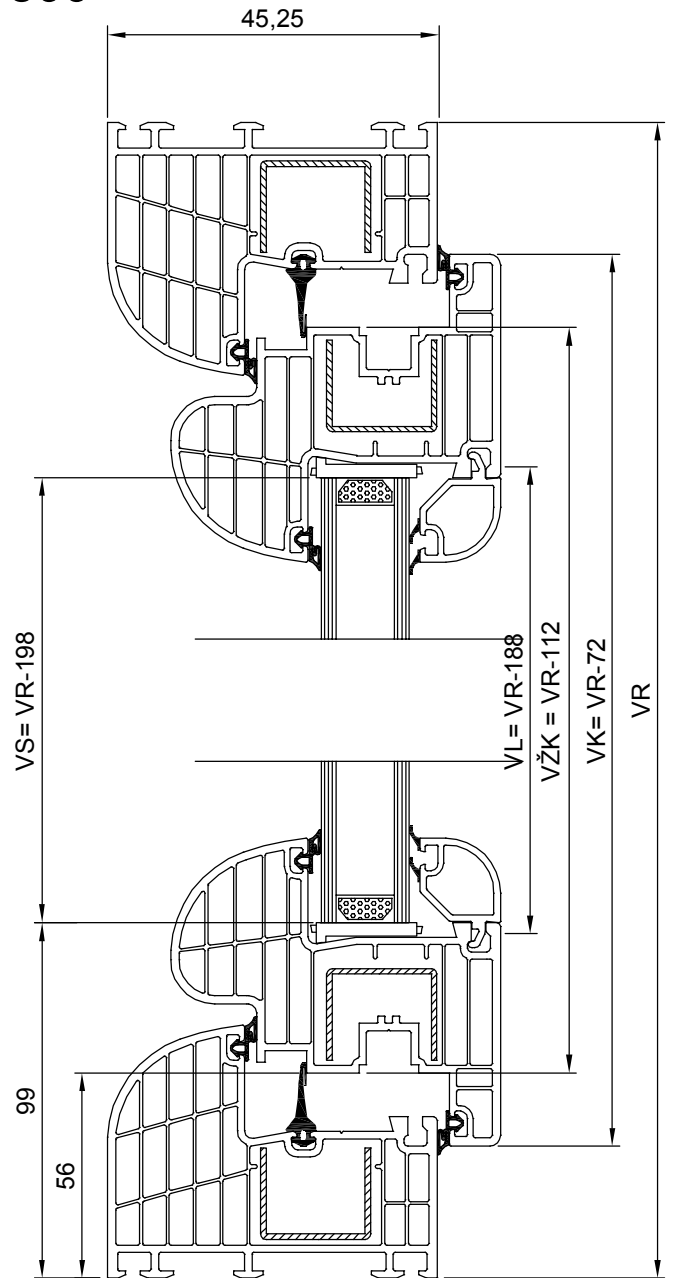
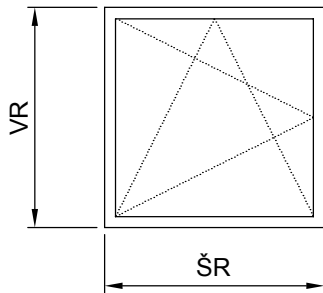
PRESEK "A-A"



# JEDNOKRILNI PROZOR SISTEM 800

## LEGENDA

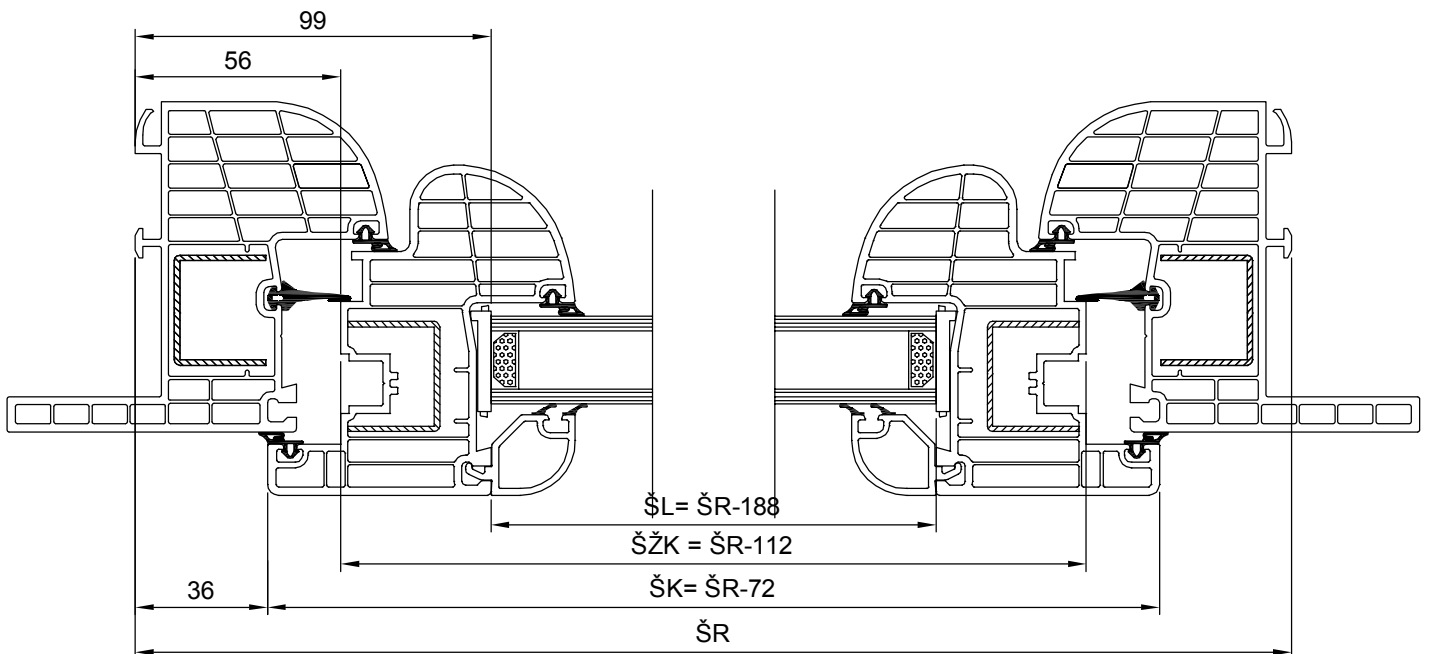
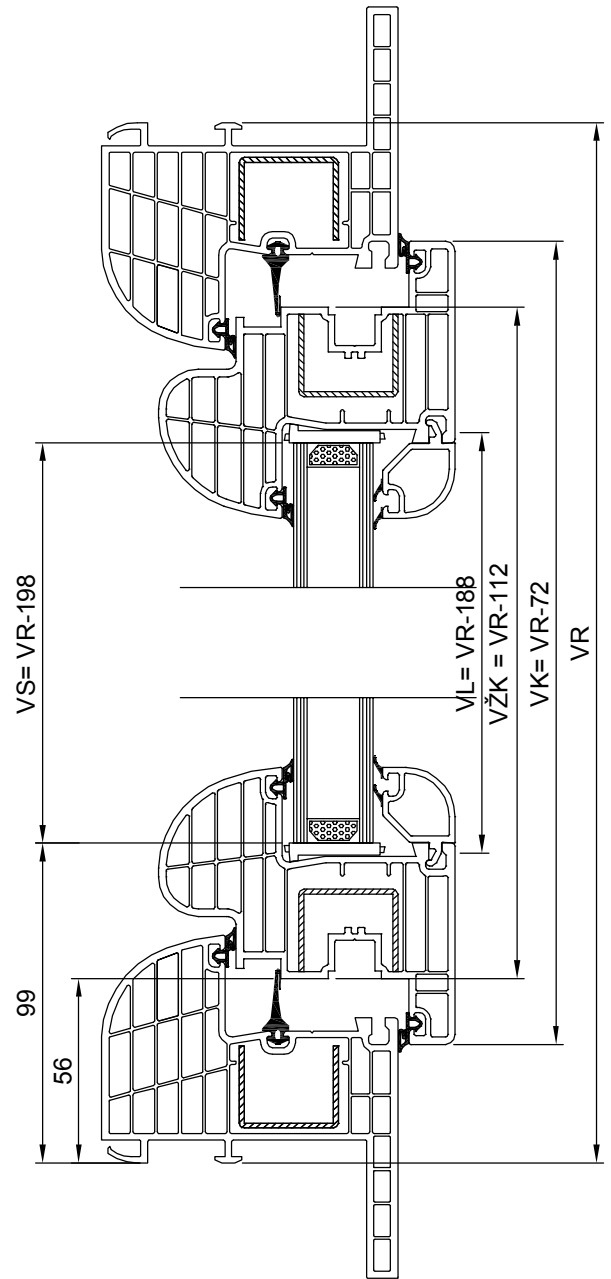
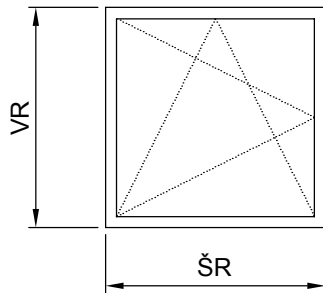
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLEBA KRILA  
 VŽK= VISINA ŽLEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



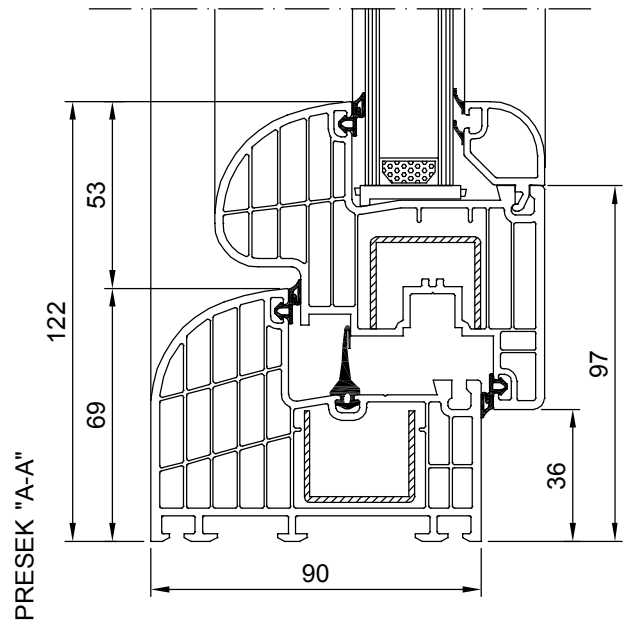
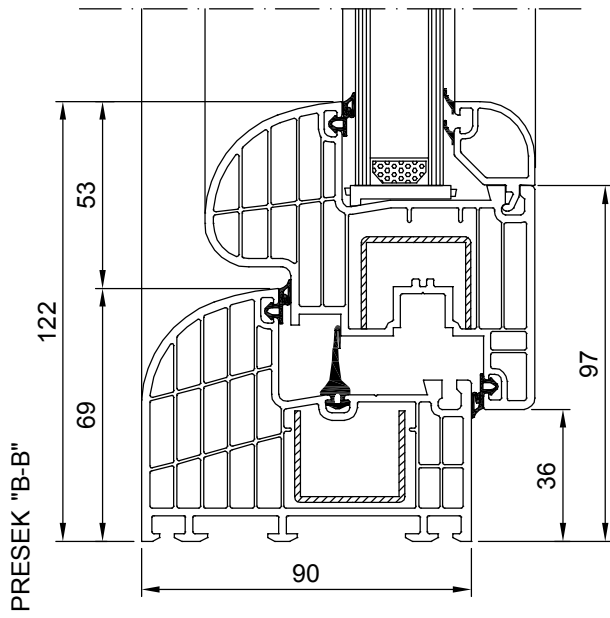
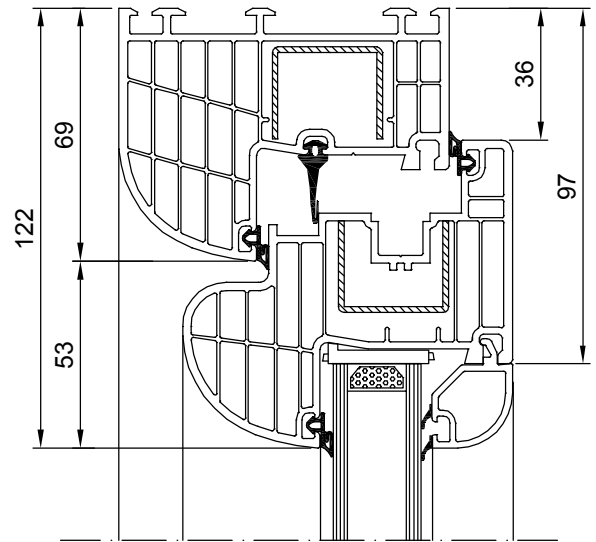
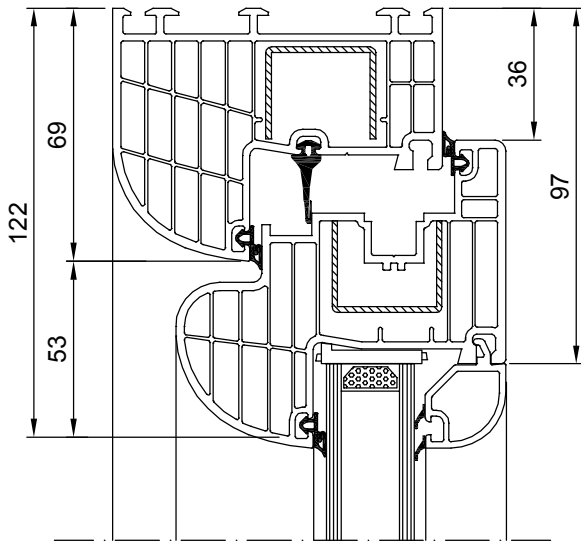
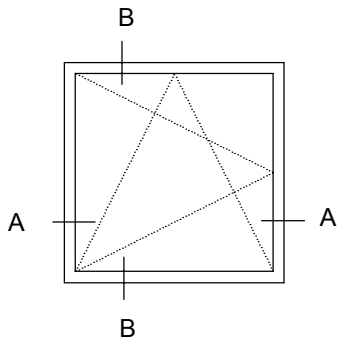
# JEDNOKRILNI PROZOR RAM SA PEROM SISTEM 800

## LEGENDA

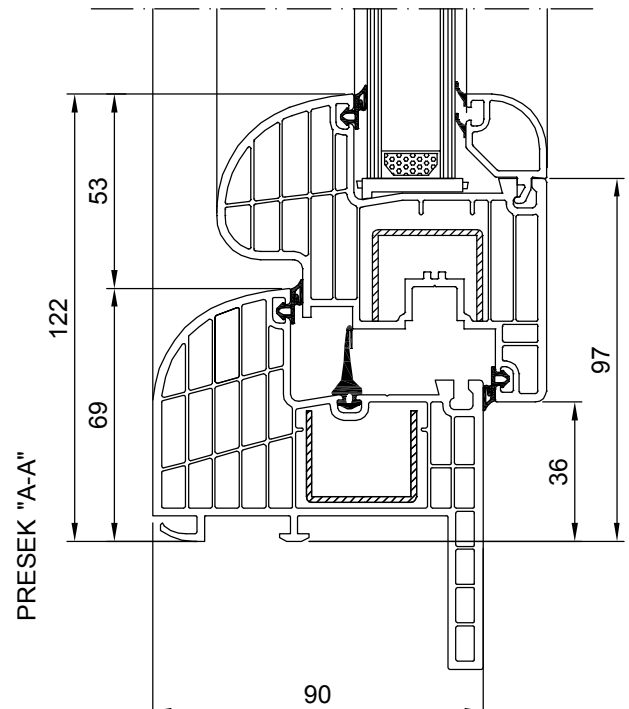
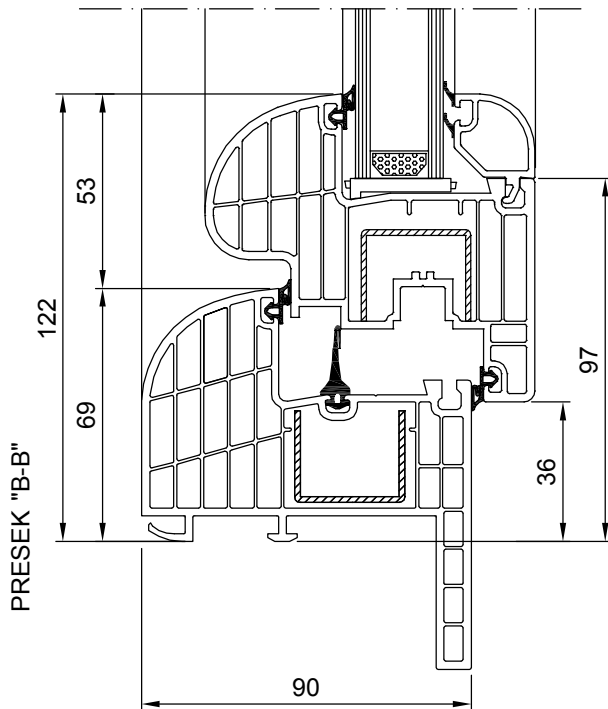
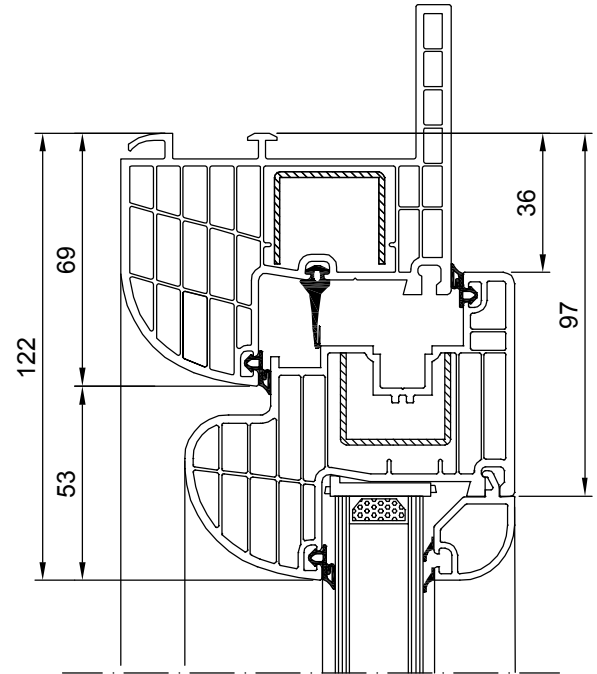
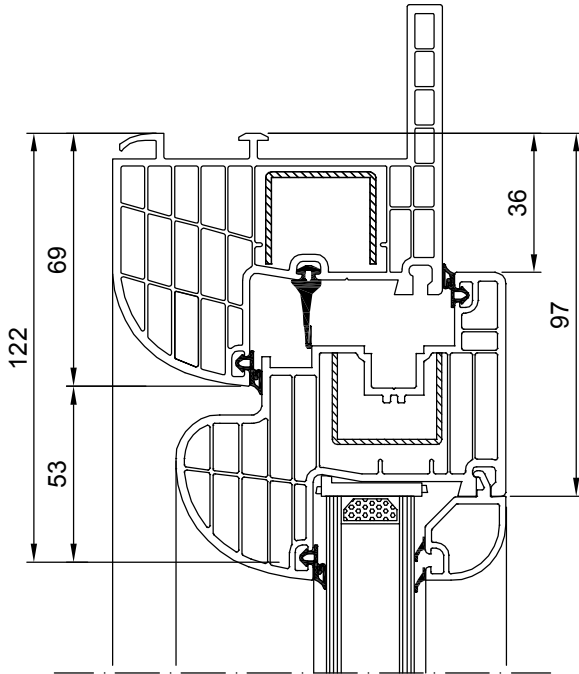
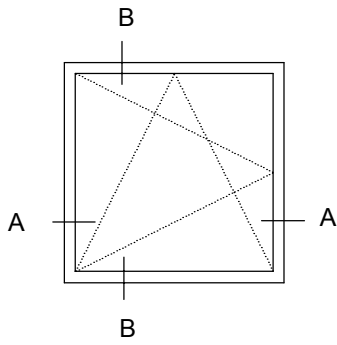
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 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLEBA KRILA  
 VŽK= VISINA ŽLEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



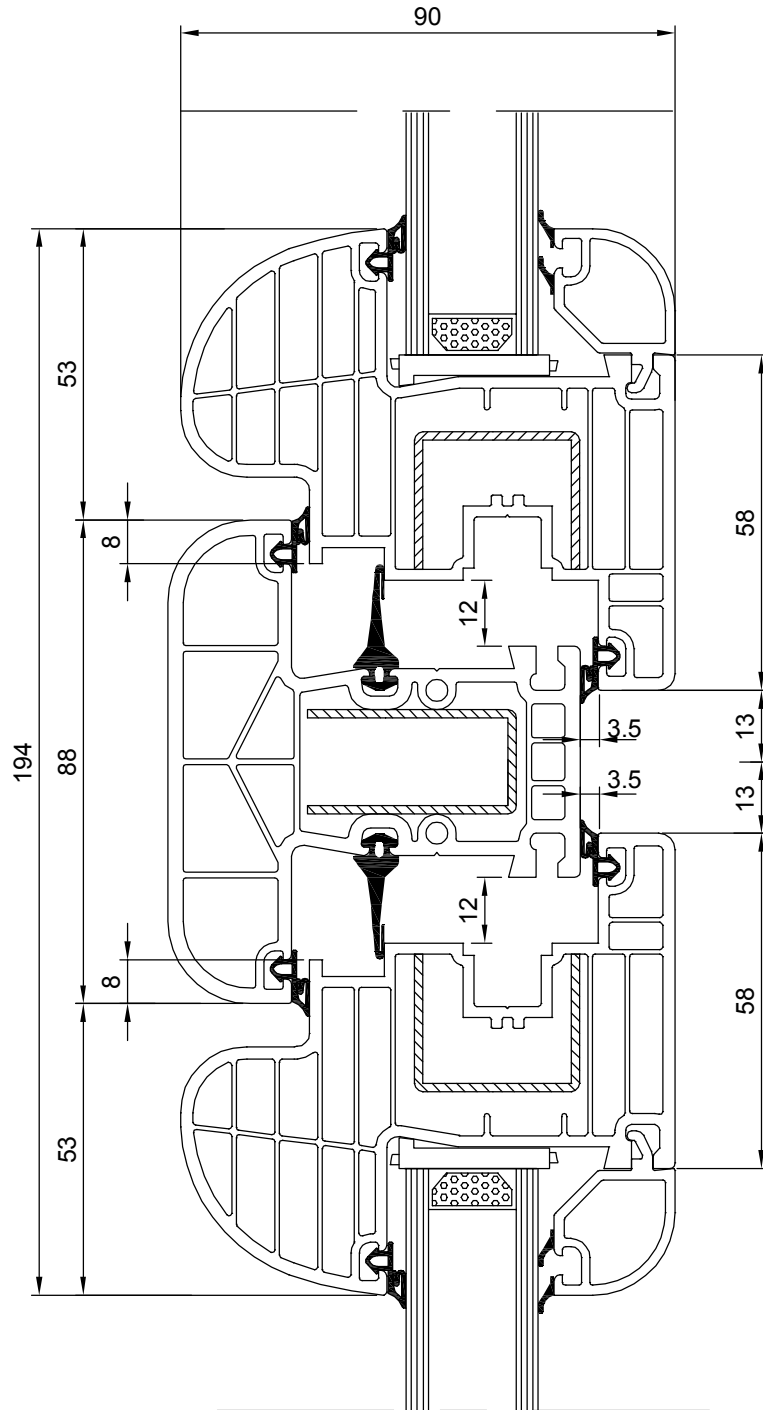
# JEDNOKRILNI PROZOR SISTEM 800



# JEDNOKRILNI PROZOR RAM SA PEROM SISTEM 800

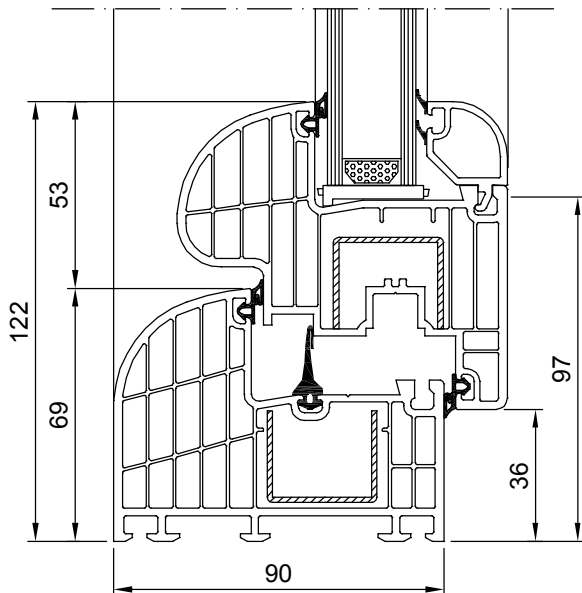
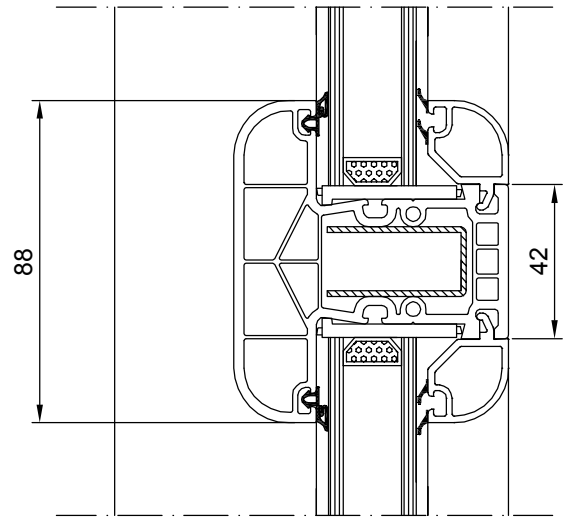
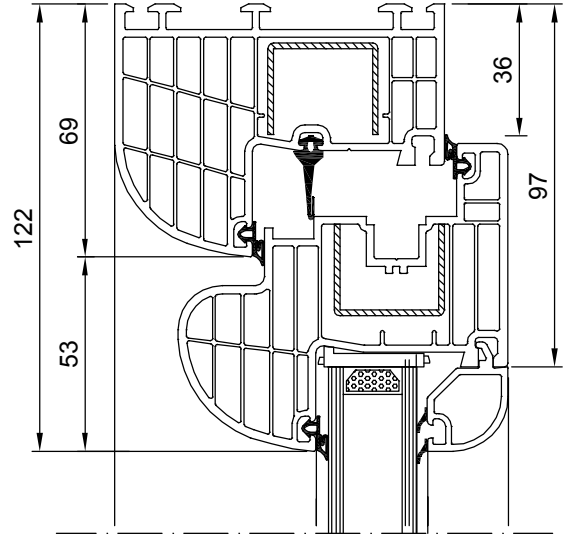
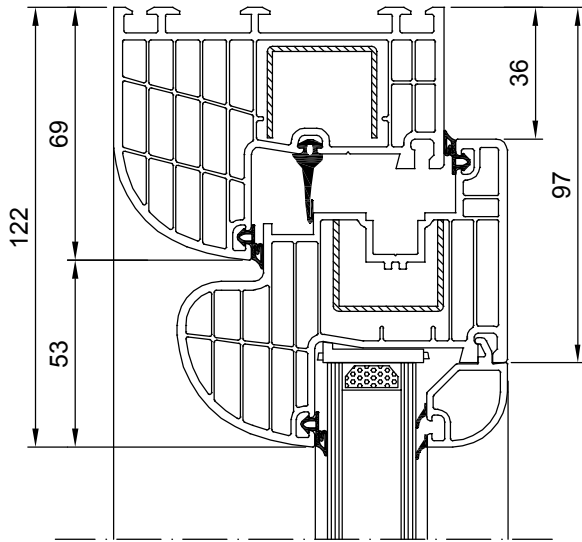
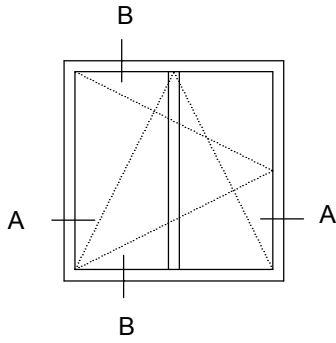


# PRESEK PROZORA KRILO-STUB-KRILO SISTEM 600/800

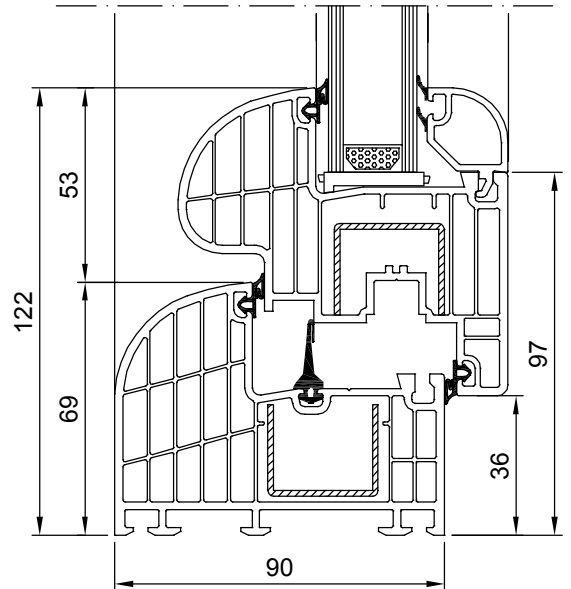




# JEDNOKRILNI PROZOR SA STUBOM SISTEM 800

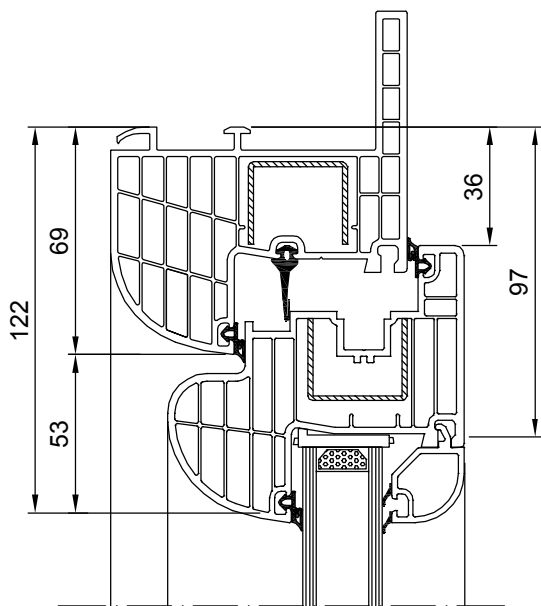
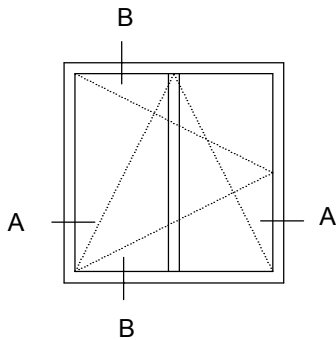


PRESEK "A-A"

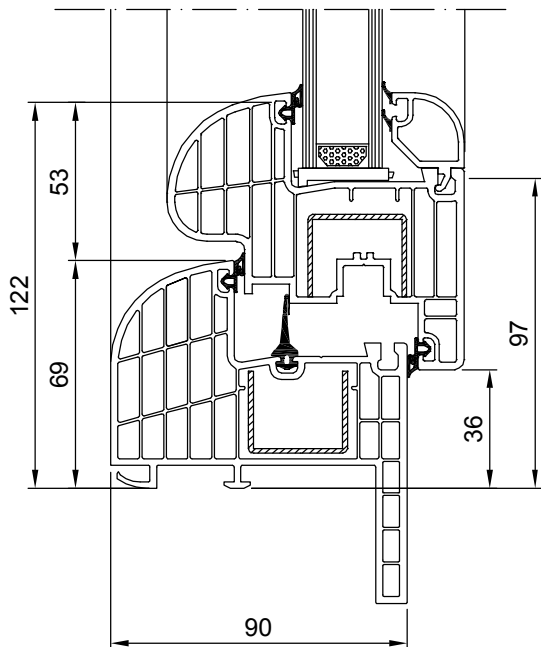


PRESEK "B-B"

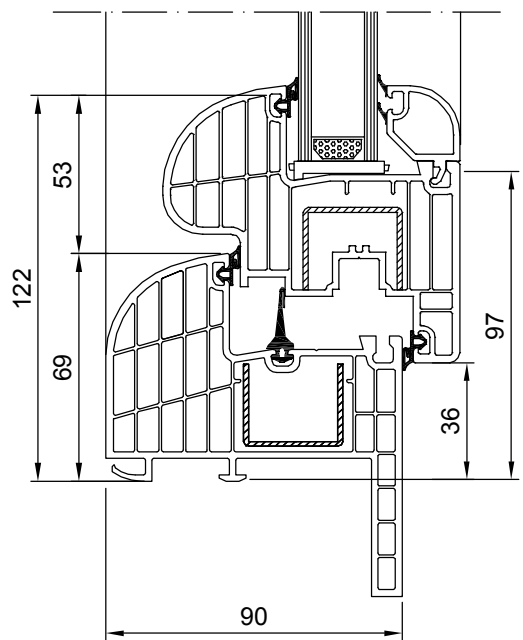
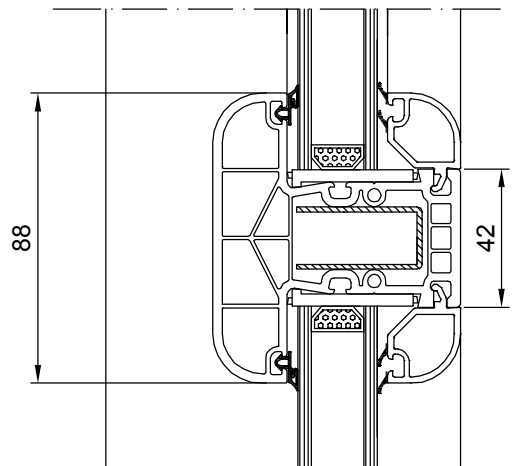
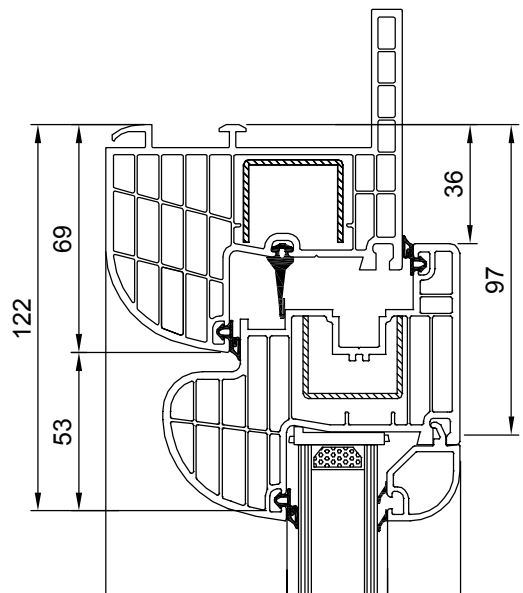
# JEDNOKRILNI PROZOR SA STUBOM RAM SA PEROM SISTEM 800



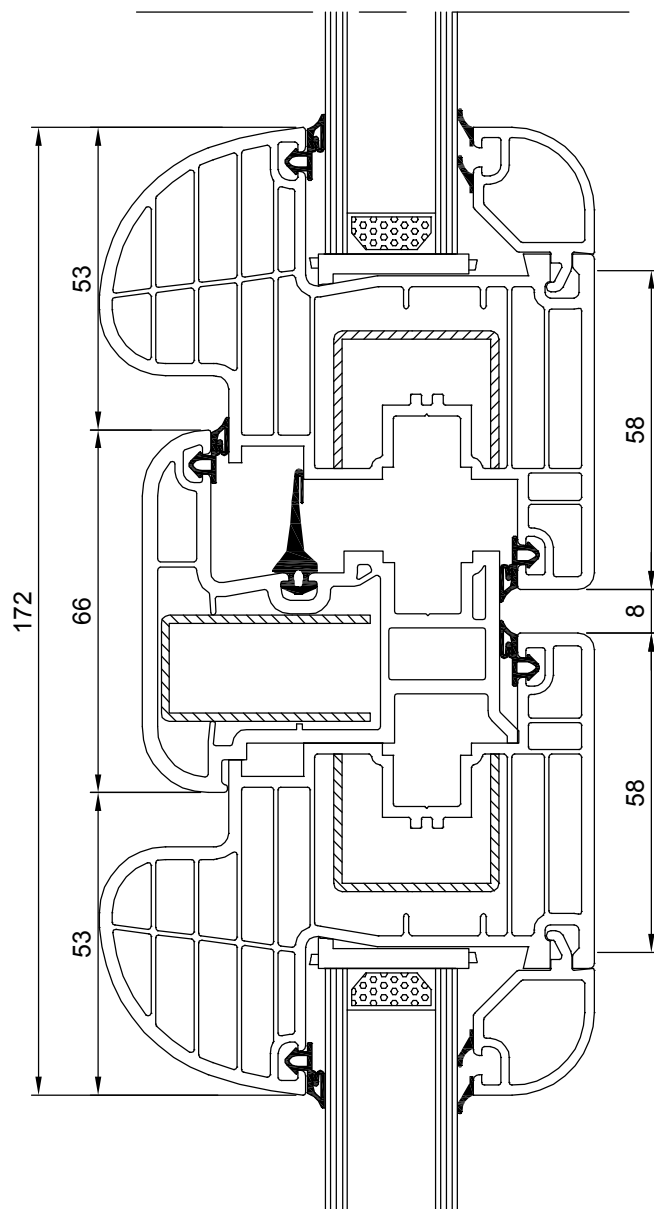
PRESEK "B-B"



PRESEK "A-A"

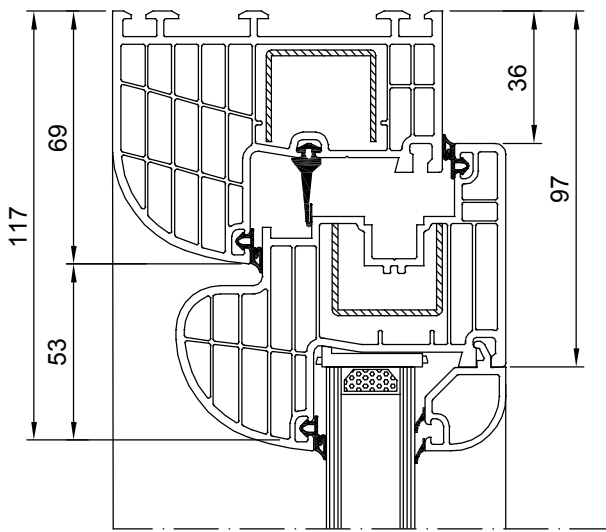
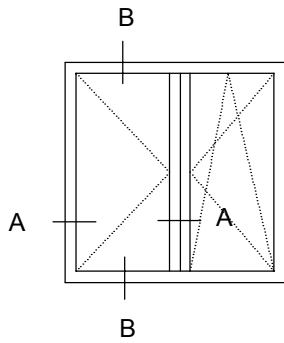


PRESEK PROZORA  
KRILO-PREKLOP-KRILO  
SISTEM 600/800

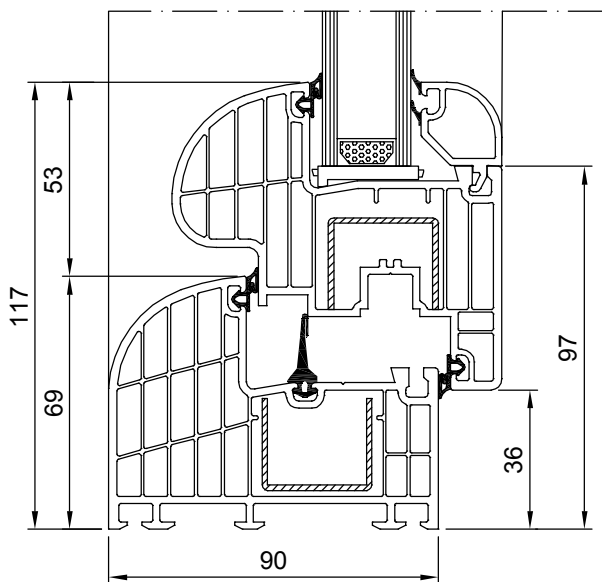




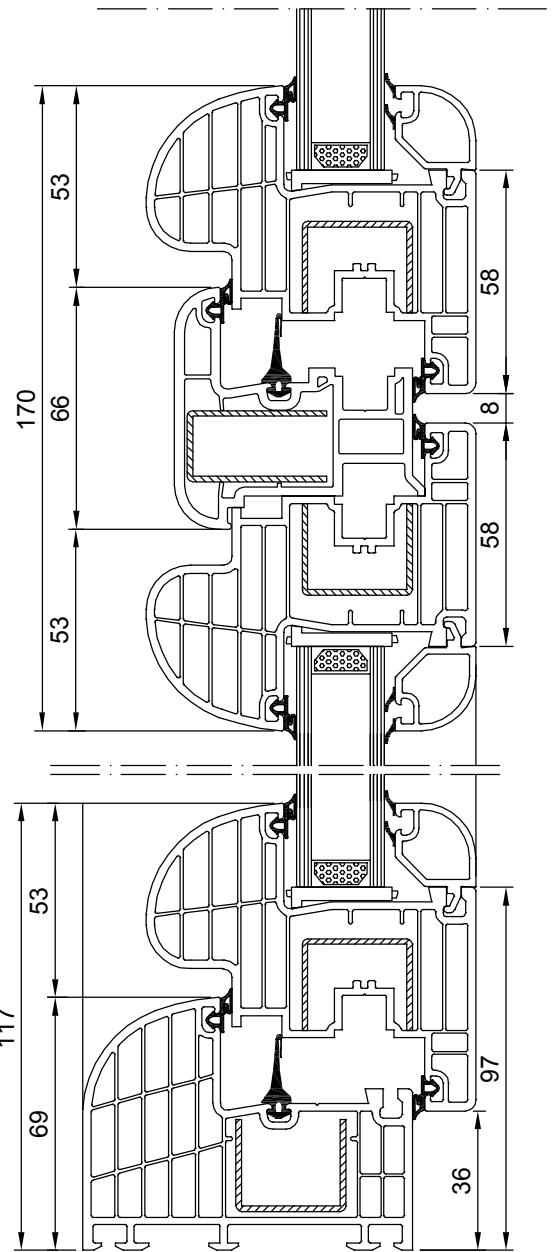
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 800



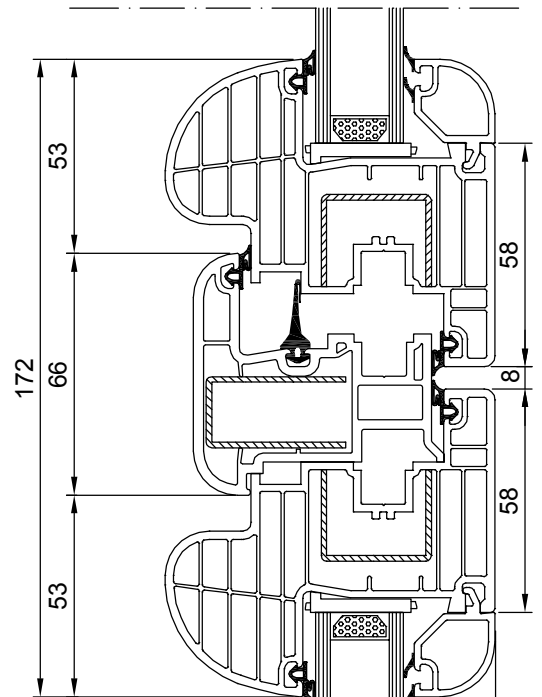
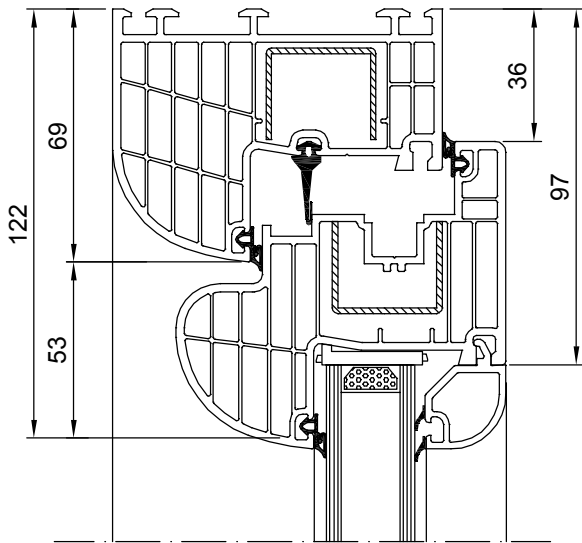
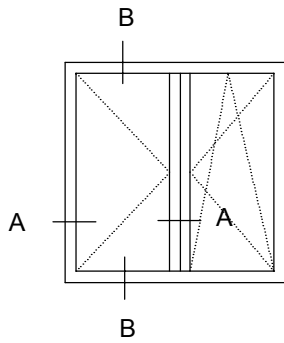
PRESEK "B-B"



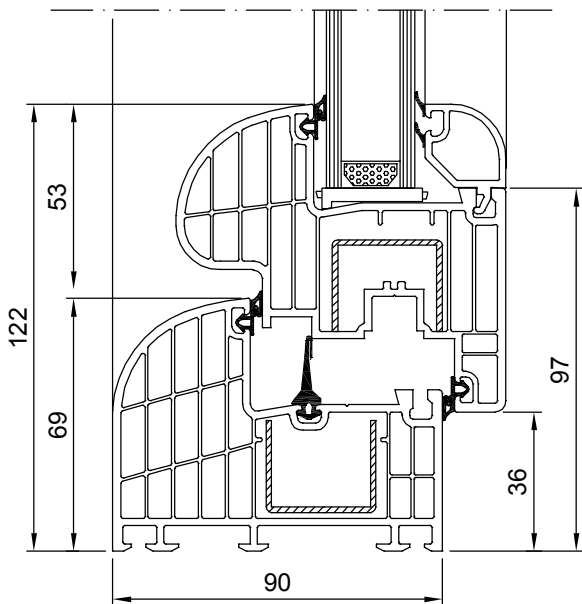
PRESEK "A-A"



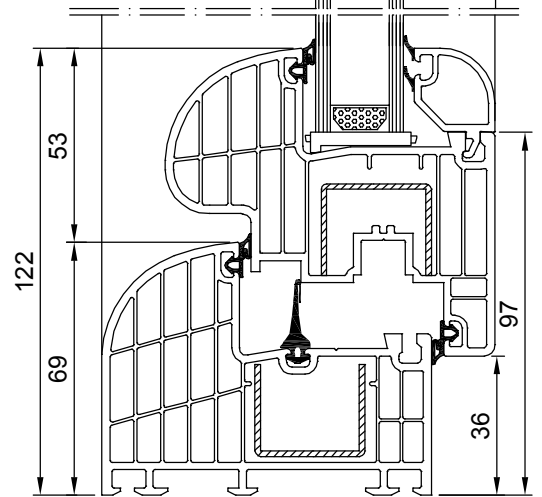
# DVOKRILNI PROZOR SA PREKLOPOM SISTEM 800



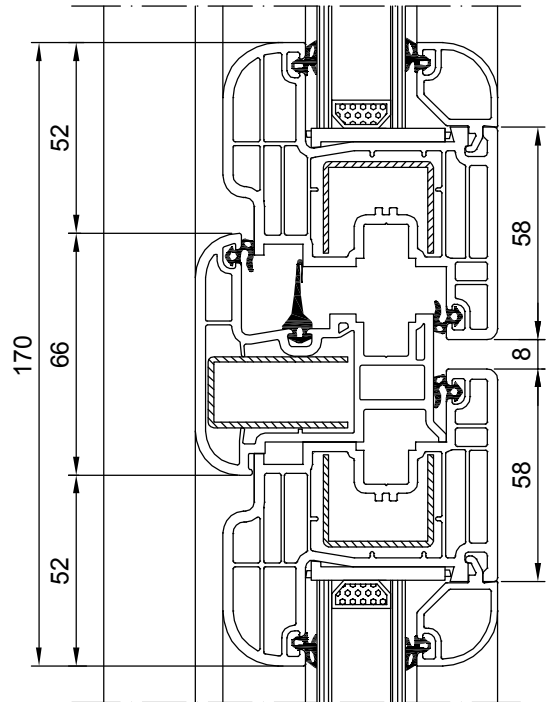
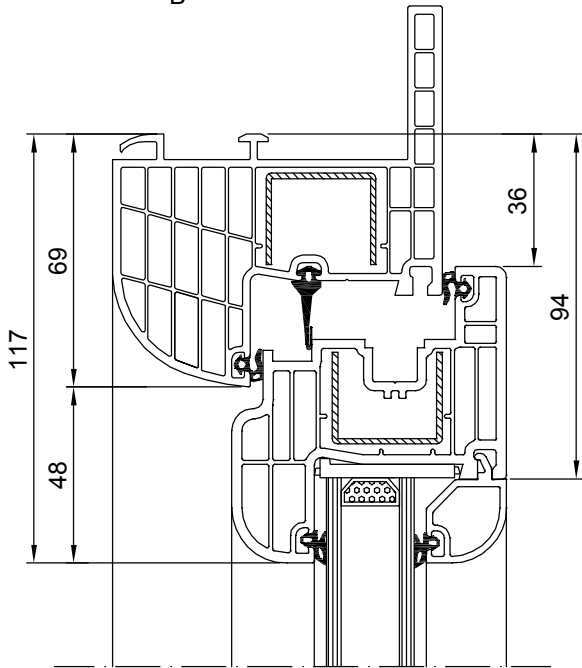
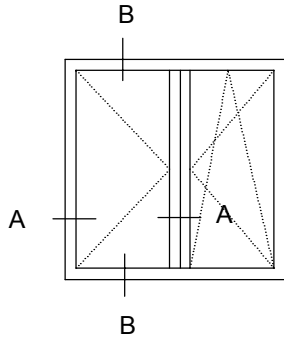
PRESEK "B-B"



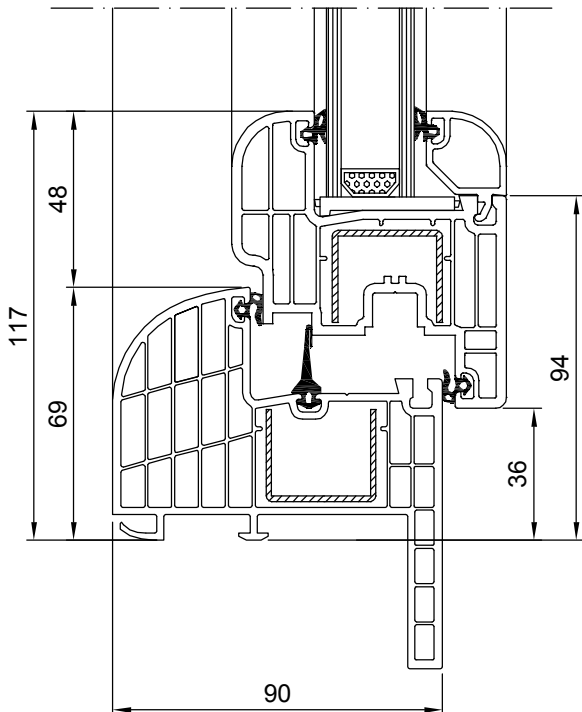
PRESEK "A-A"



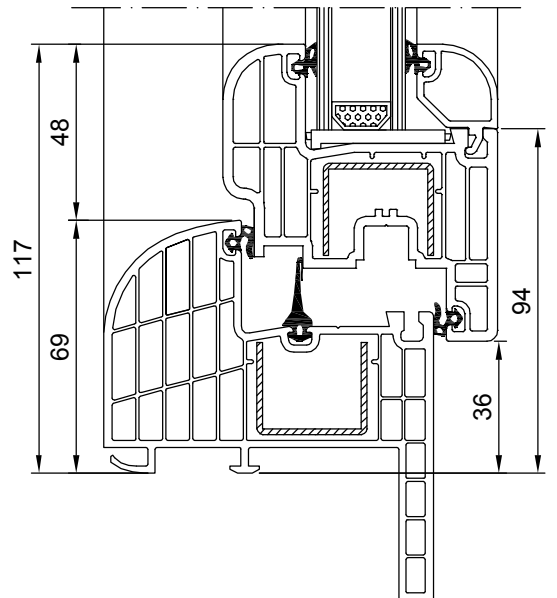
# DVOKRILNI PROZOR SA PREKLOPOM RAM SA PEROM SISTEM 800



PRESEK "B-B"



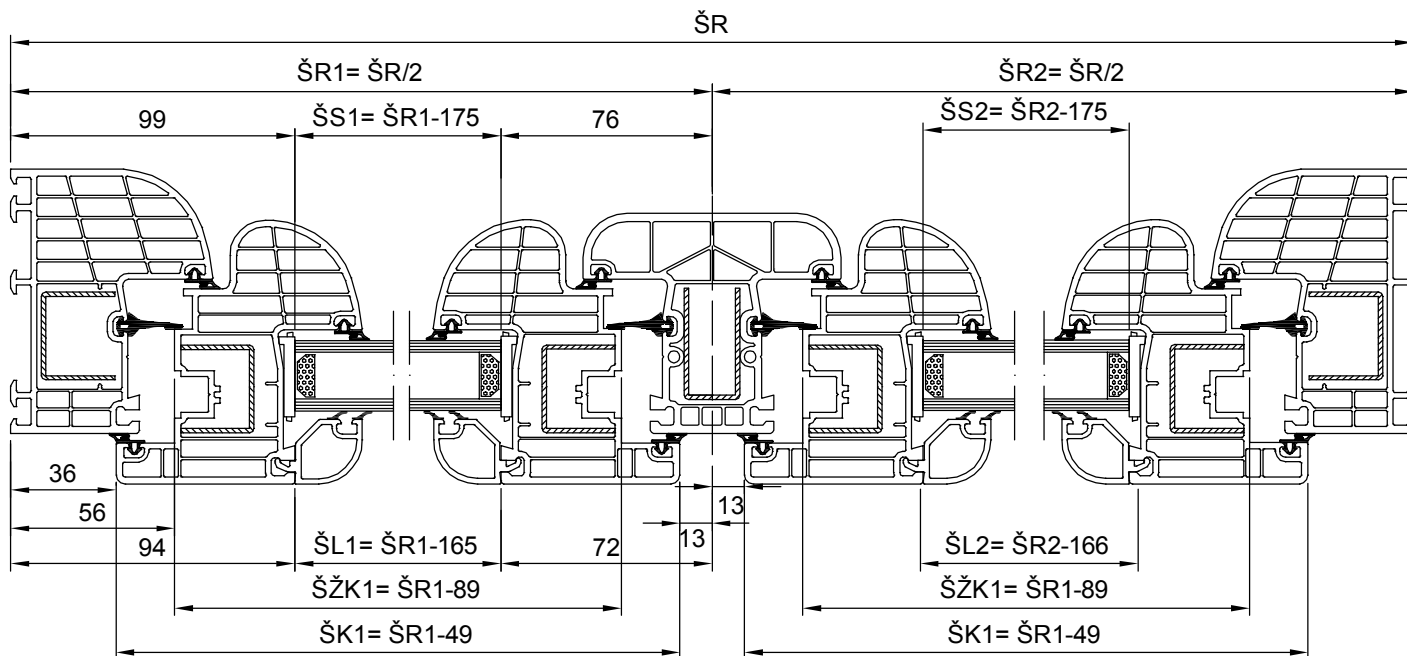
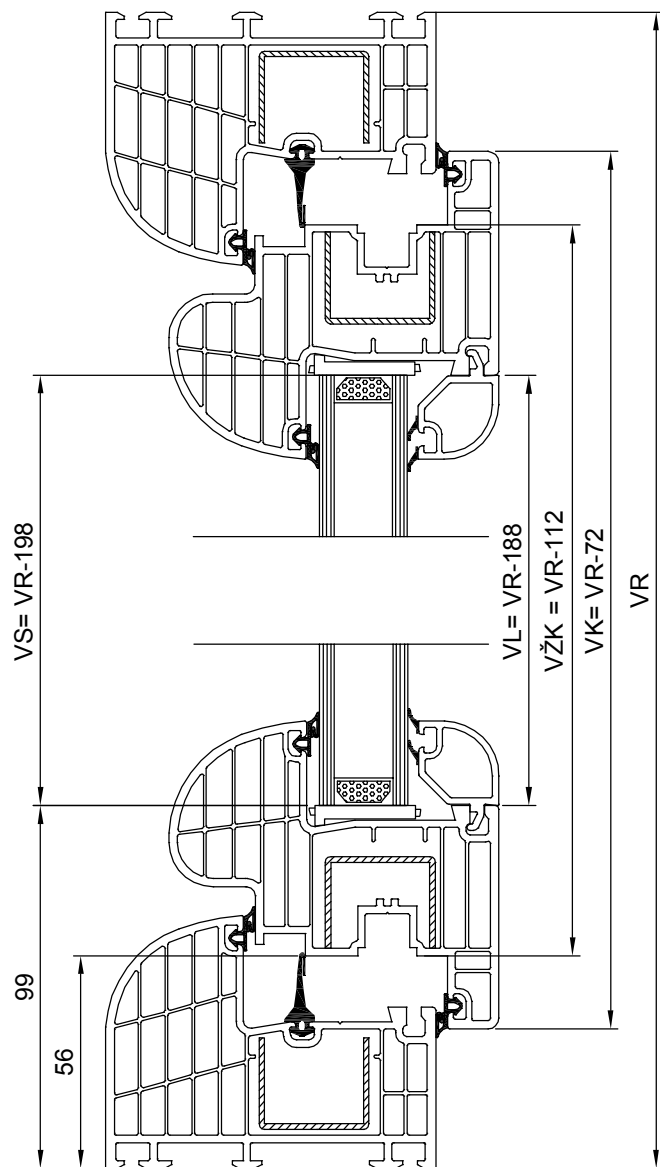
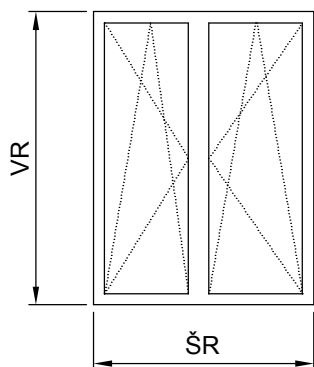
PRESEK "A-A"



# DVOKRILNI PROZOR SA STUBOM SISTEM 800

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA

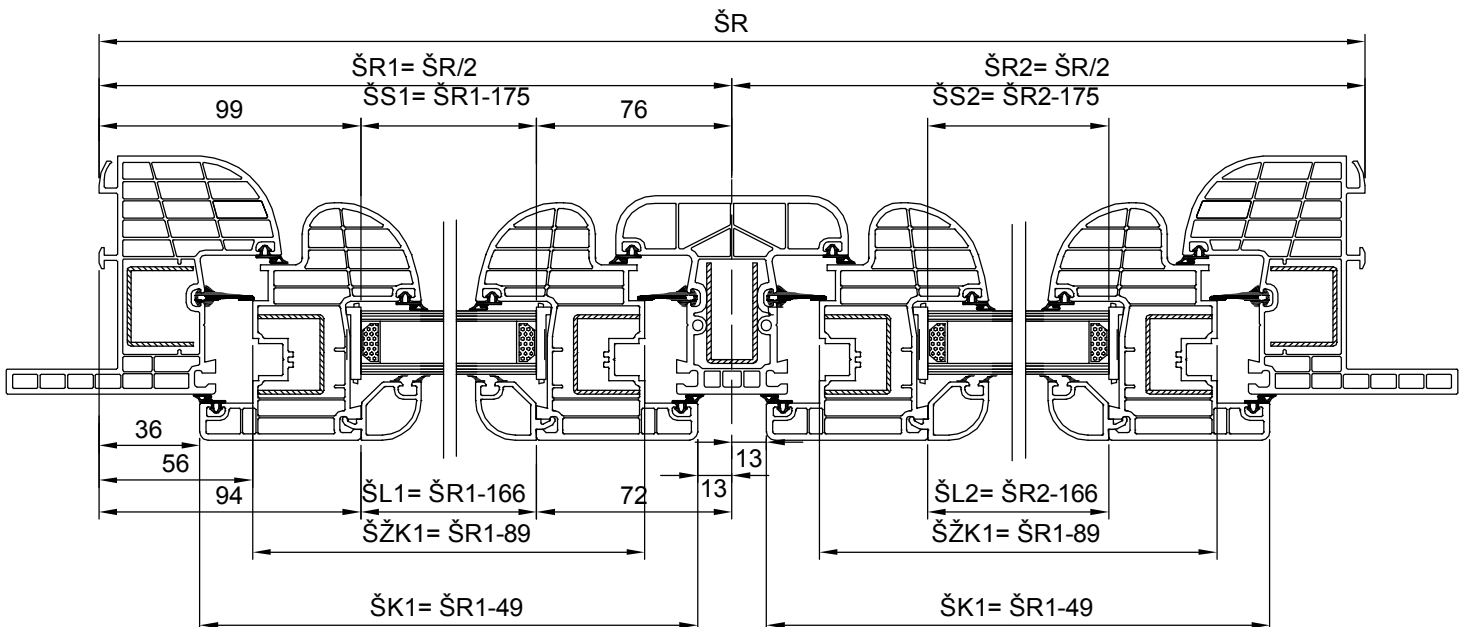
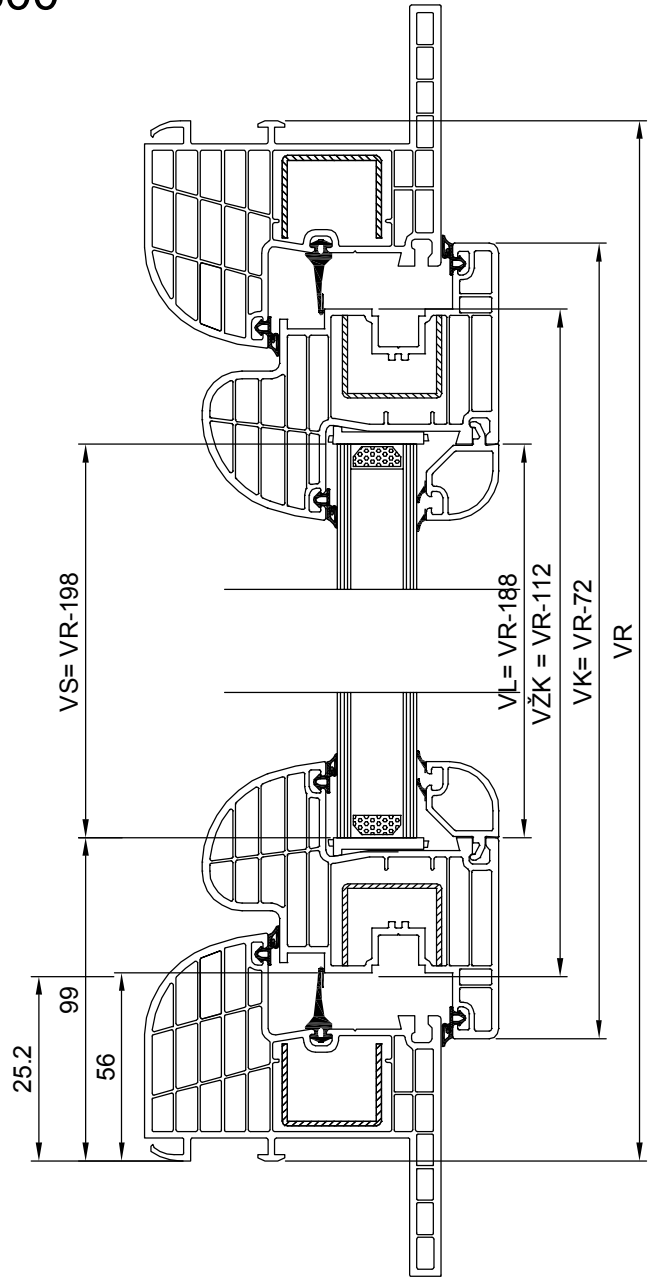
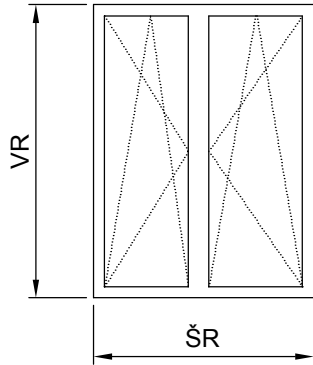




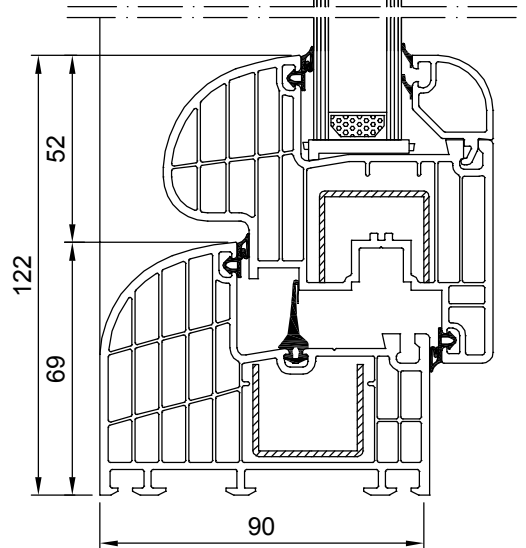
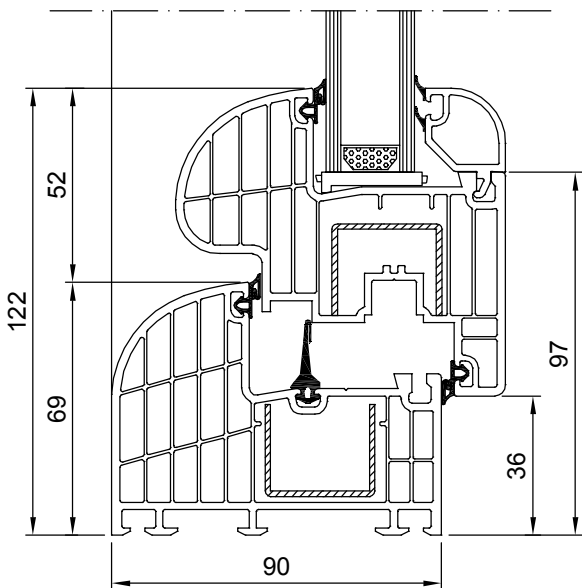
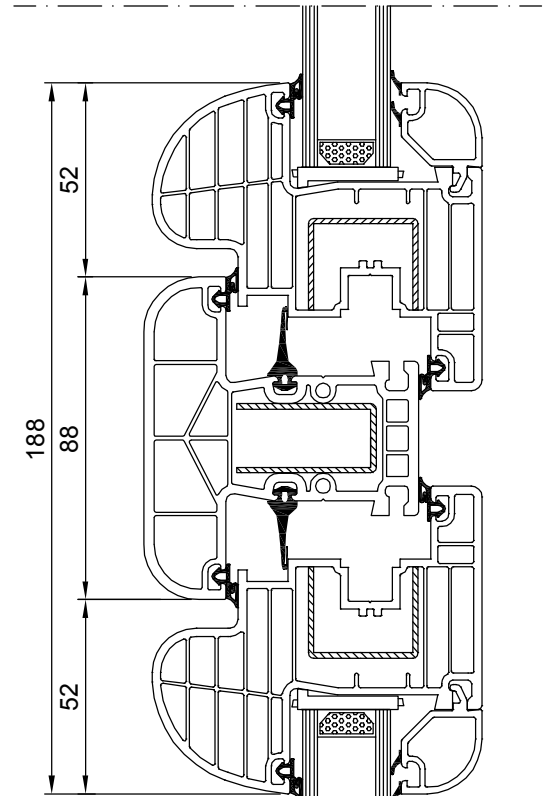
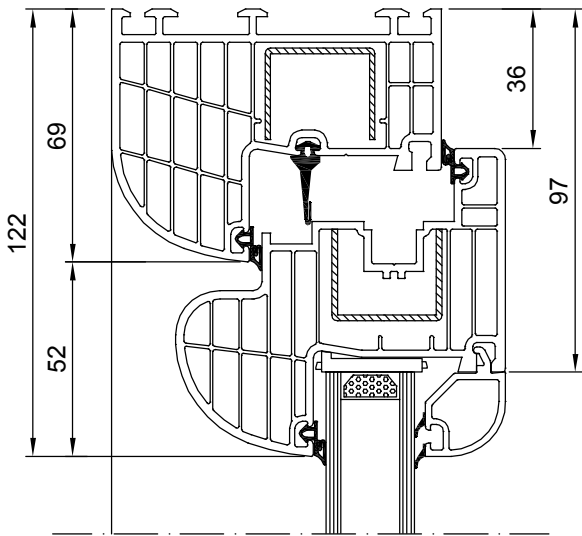
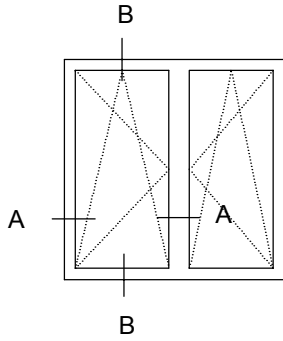
# DVOKRILNI PROZOR SA STUBOM RAM SA PEROM SISTEM 800

## LEGENDA

ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



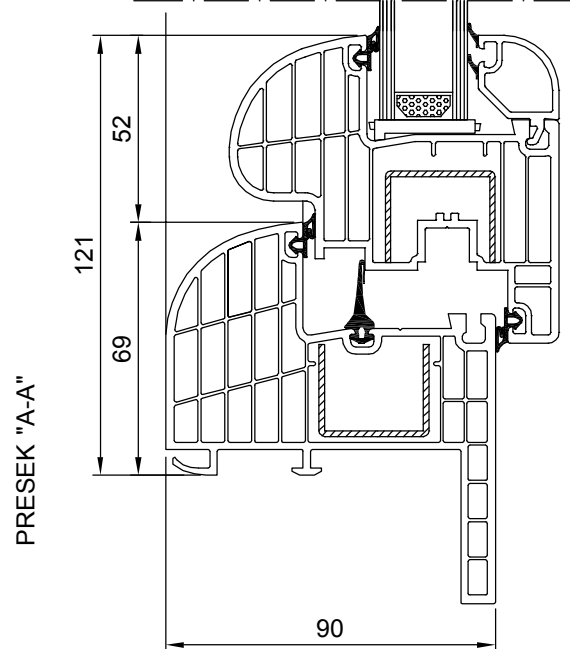
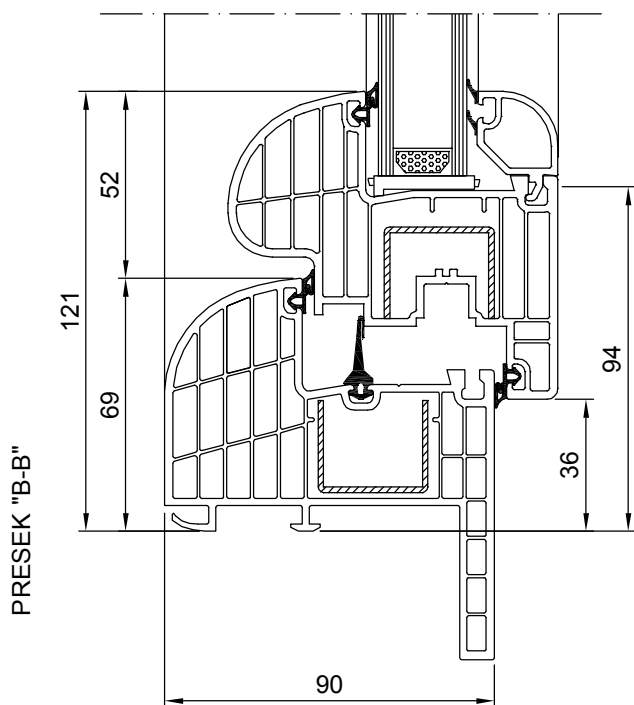
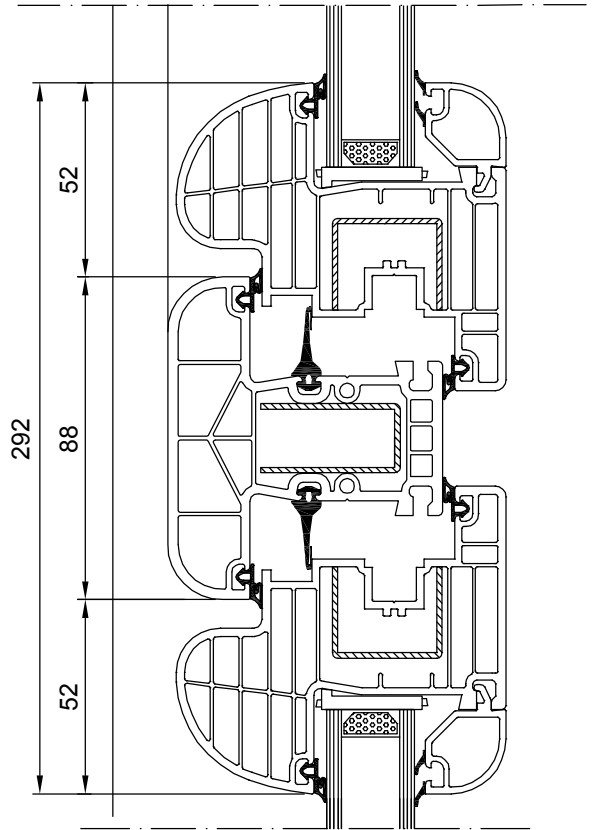
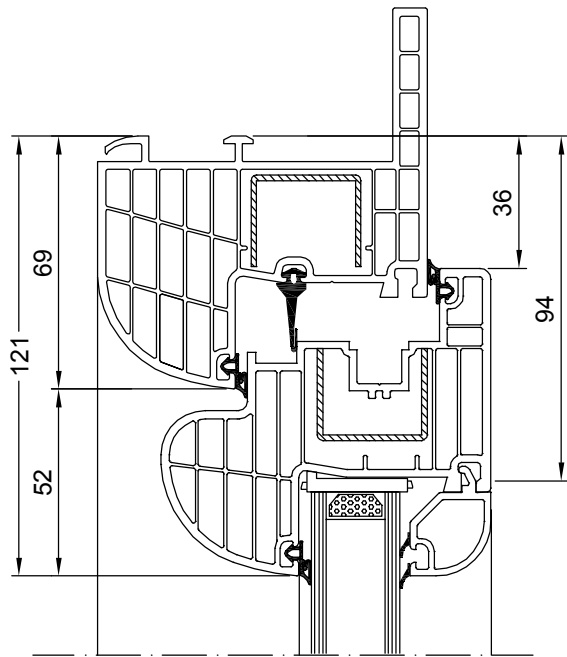
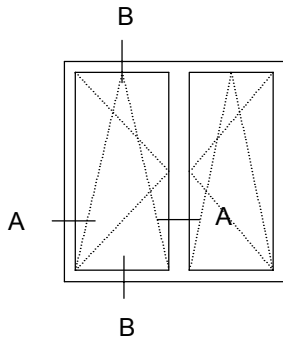
# DVOKRILNI PROZOR SA STUBOM SISTEM 800



PRESEK "B-B"

PRESEK "A-A"

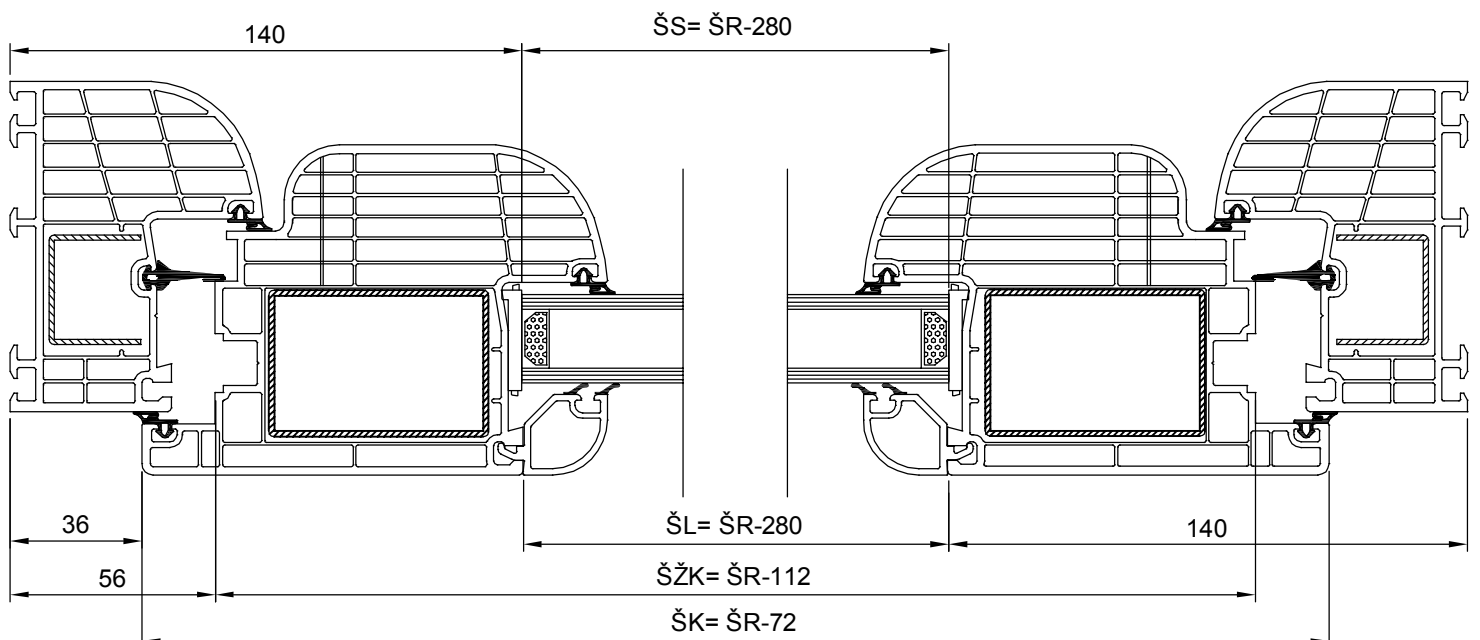
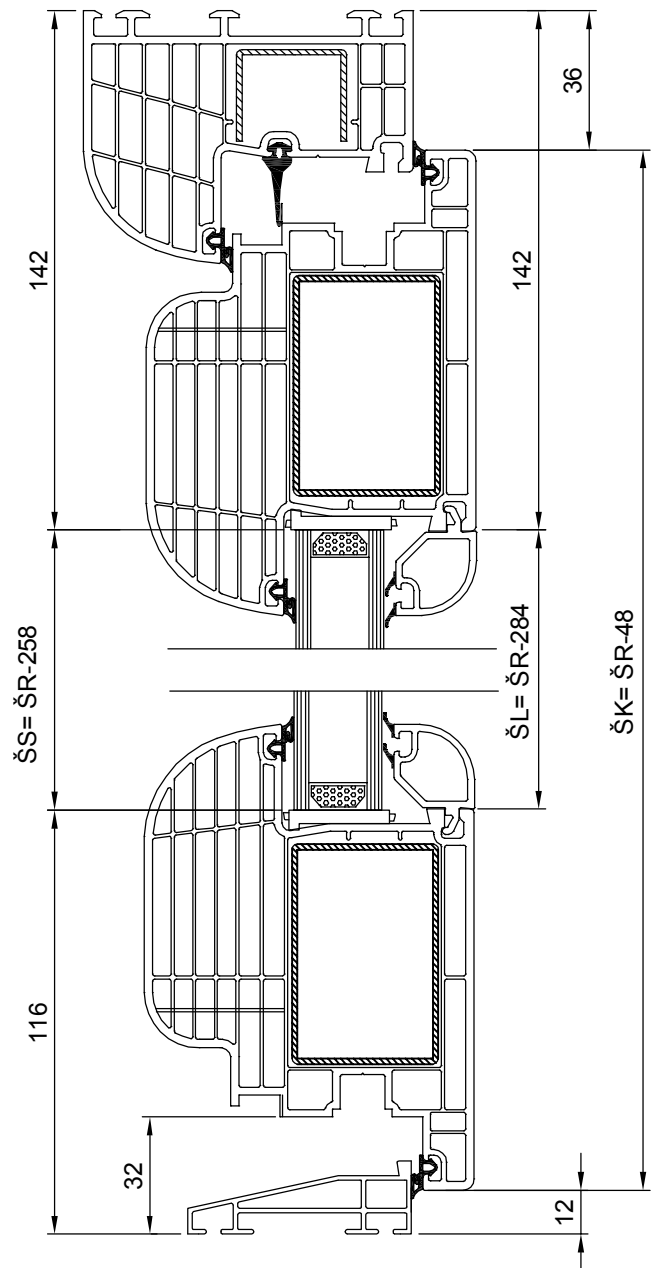
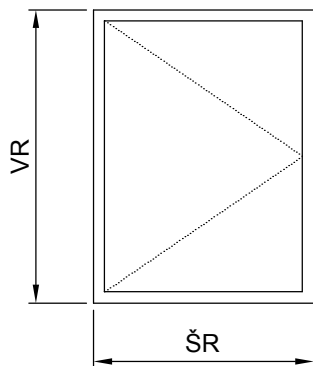
# DVOKRILNI PROZOR SA STUBOM RAM SA PEROM SISTEM 800



# ULAZNA VRATA SISTEM 800

## LEGENDA

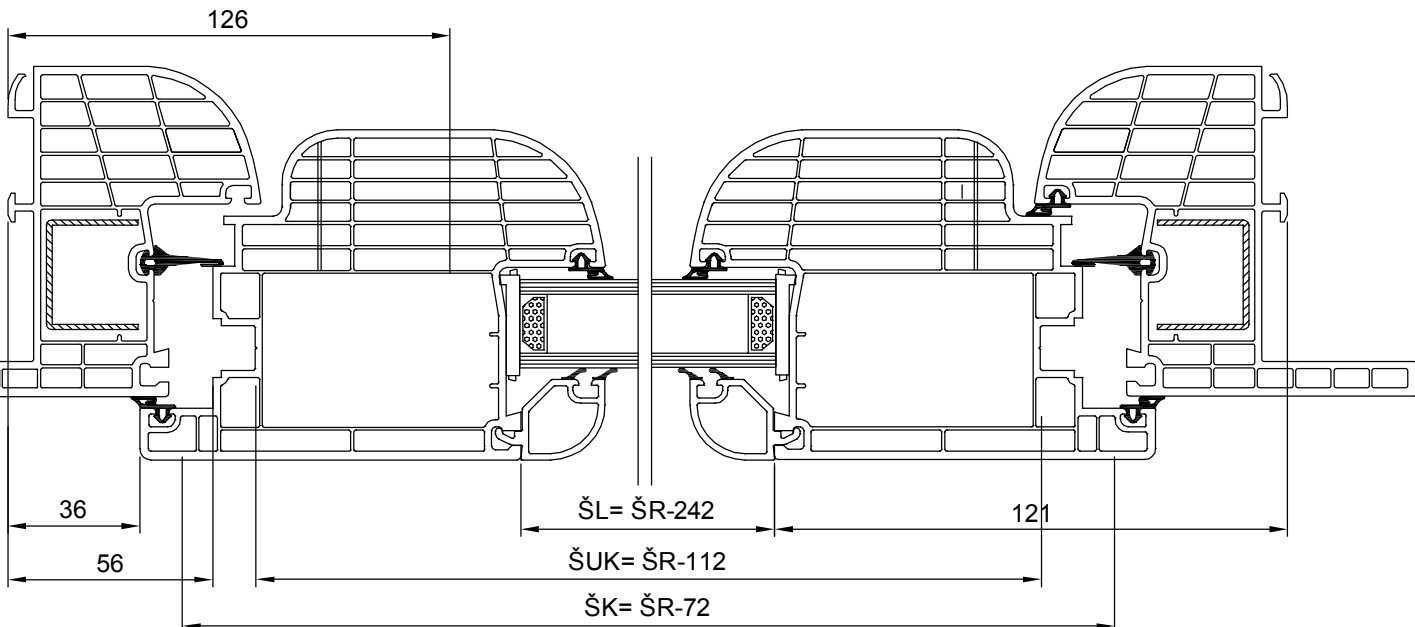
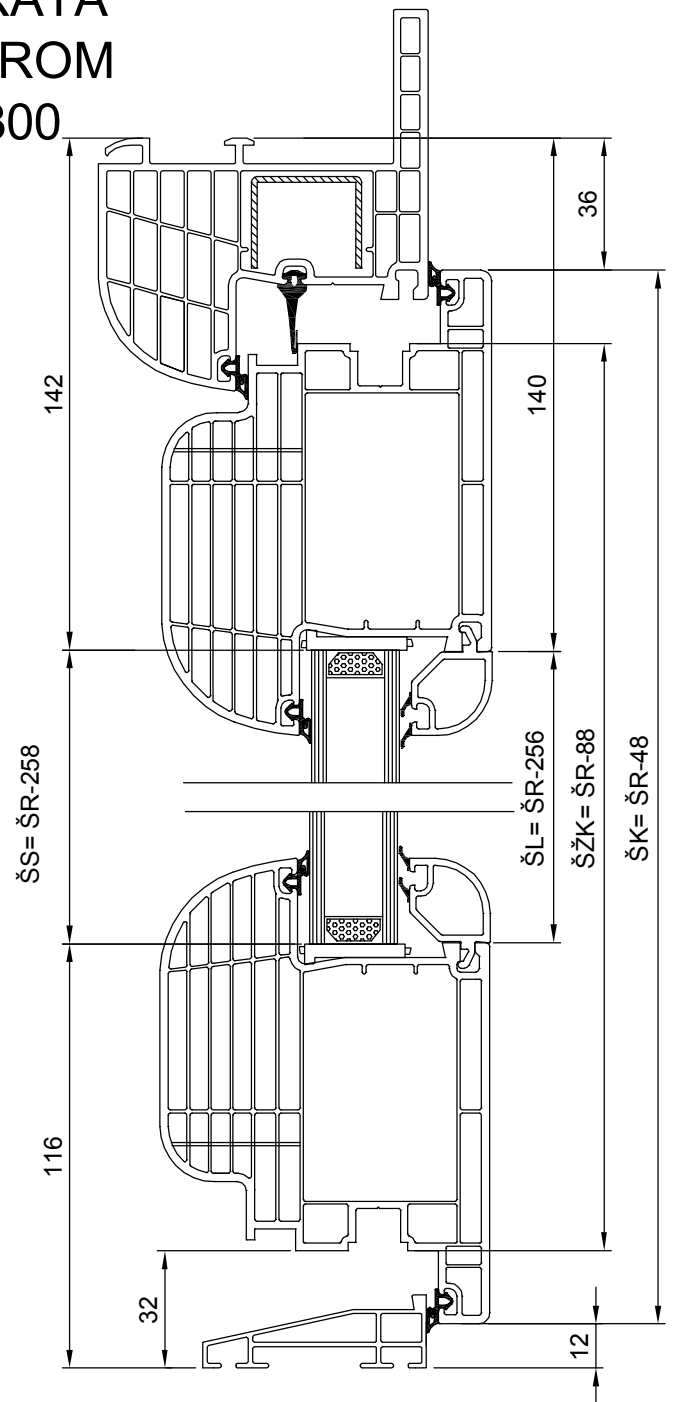
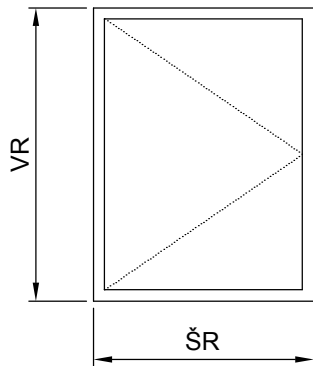
ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



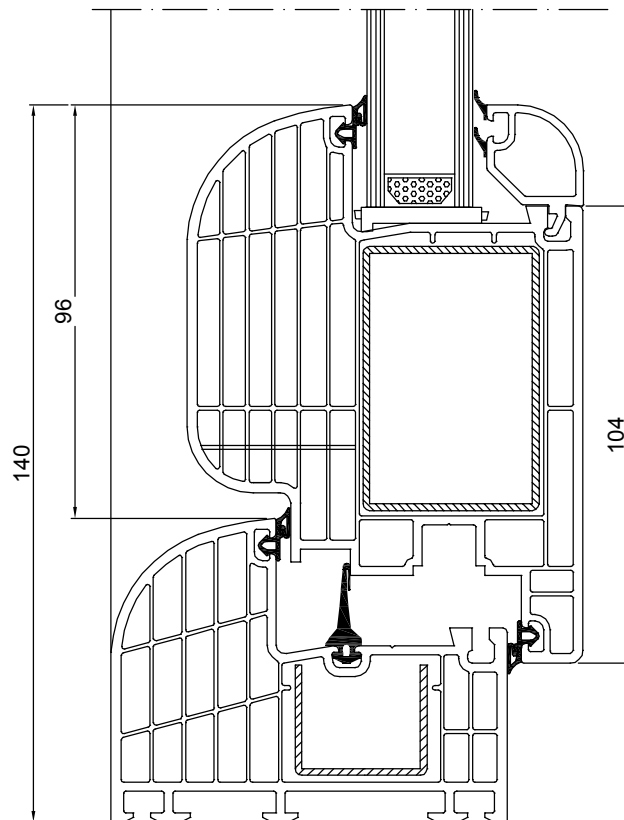
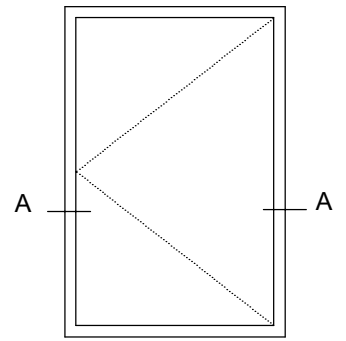
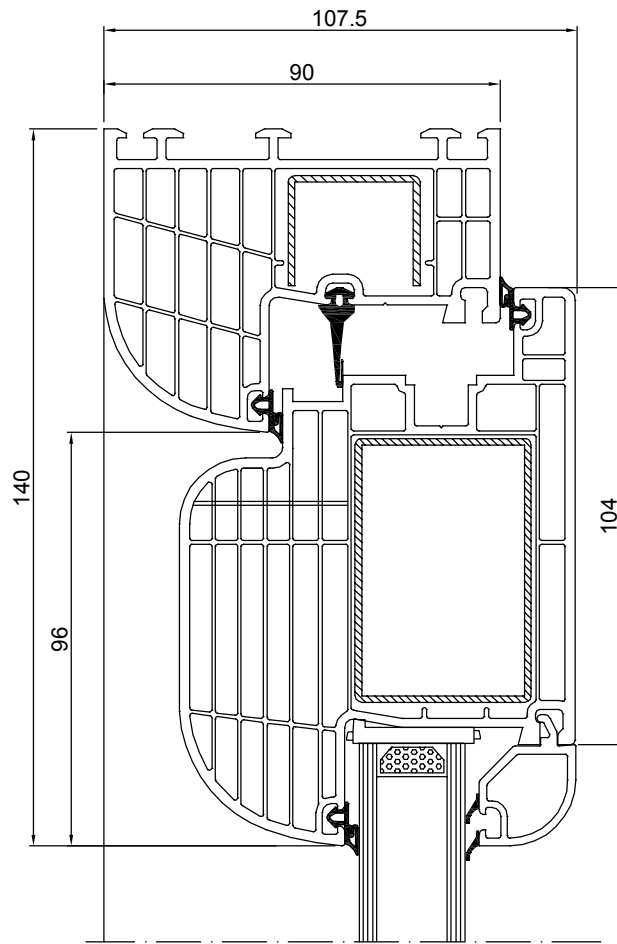
# ULAZNA VRATA RAM SA PEROM SISTEM 800

## LEGENDA

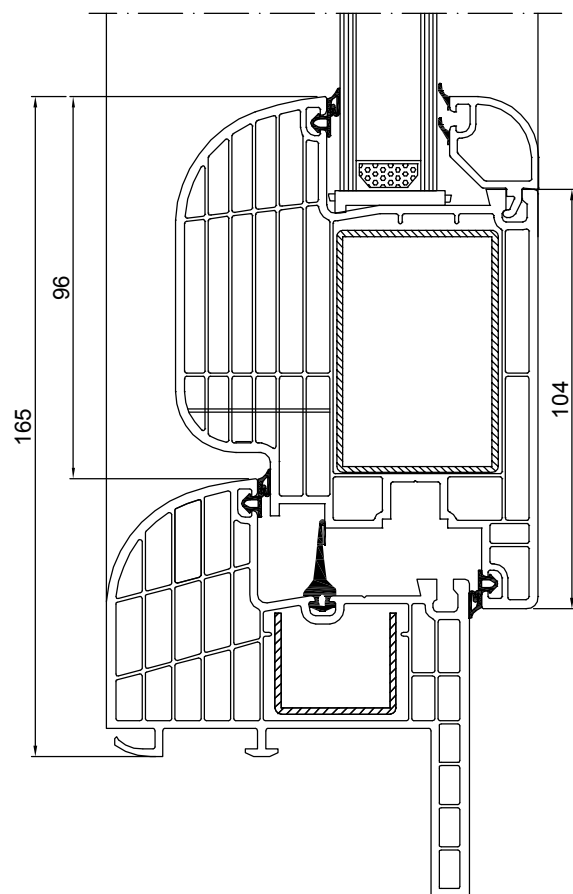
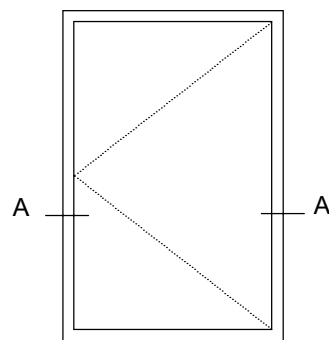
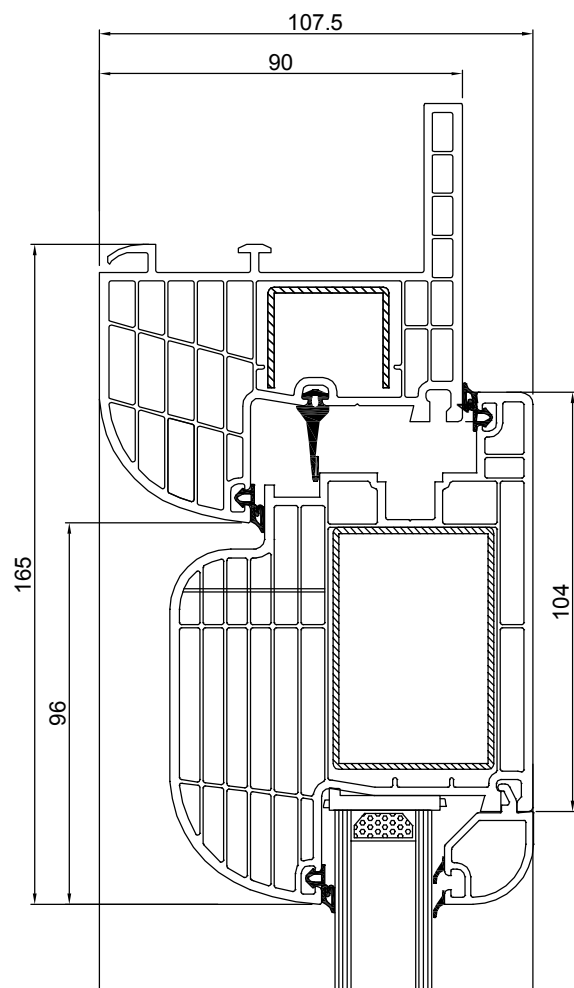
ŠR= ŠIRINA RAMA  
 VR= VISINA RAMA  
 ŠK= ŠIRINA KRILA  
 VK= VISINA KRILA  
 ŠŽK= ŠIRINA ŽLJEBA KRILA  
 VŽK= VISINA ŽLJEBA KRILA  
 ŠL=ŠIRINA LAJSNE  
 VL=VISINA LAJSNE  
 ŠS= ŠIRINA STAKLA  
 VS= VISINA STAKLA



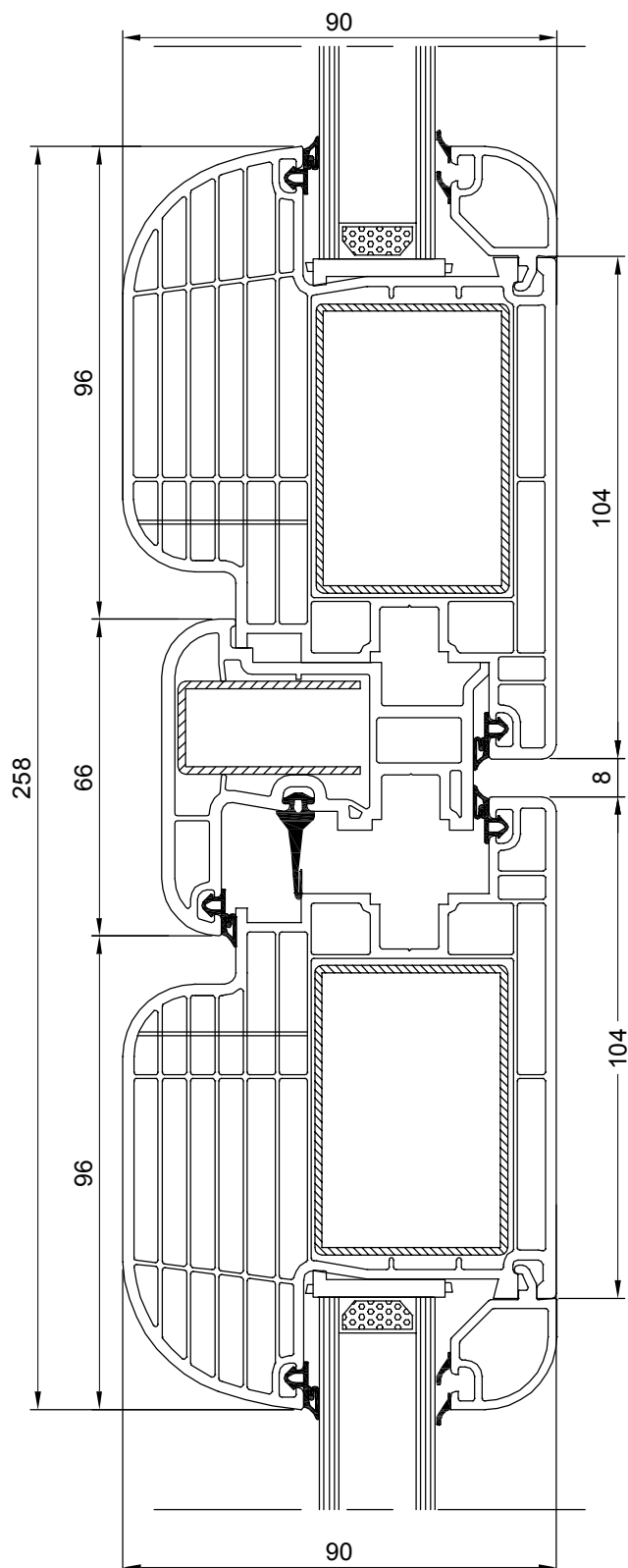
# ULAZNA VRATA SISTEM 800



# ULAZNA VRATA RAM SA PEROM SISTEM 800

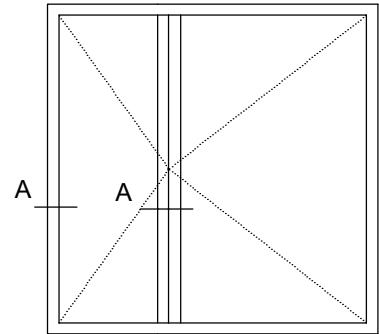
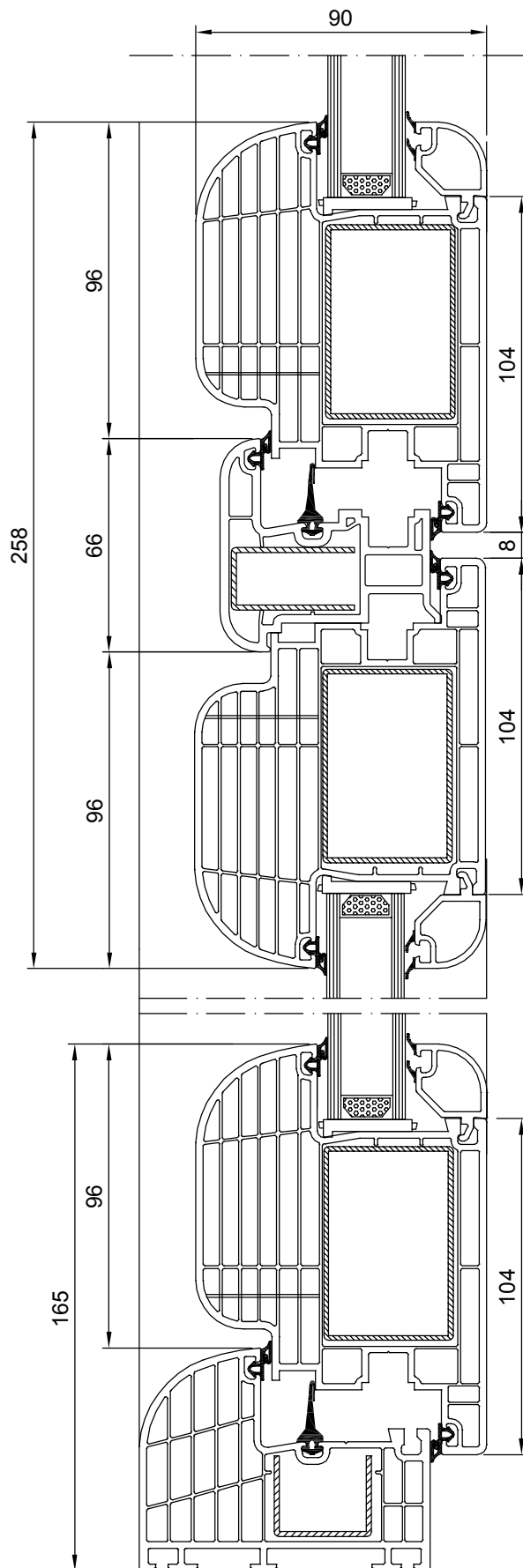


# PRESEK VRATA KRILO-PREKLOP-KRILO SISTEM 600/800

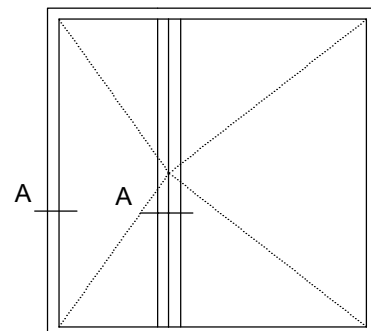
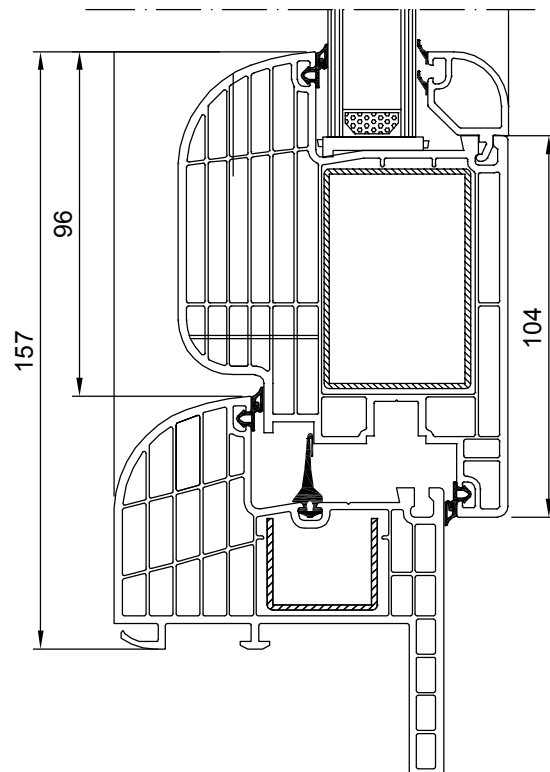
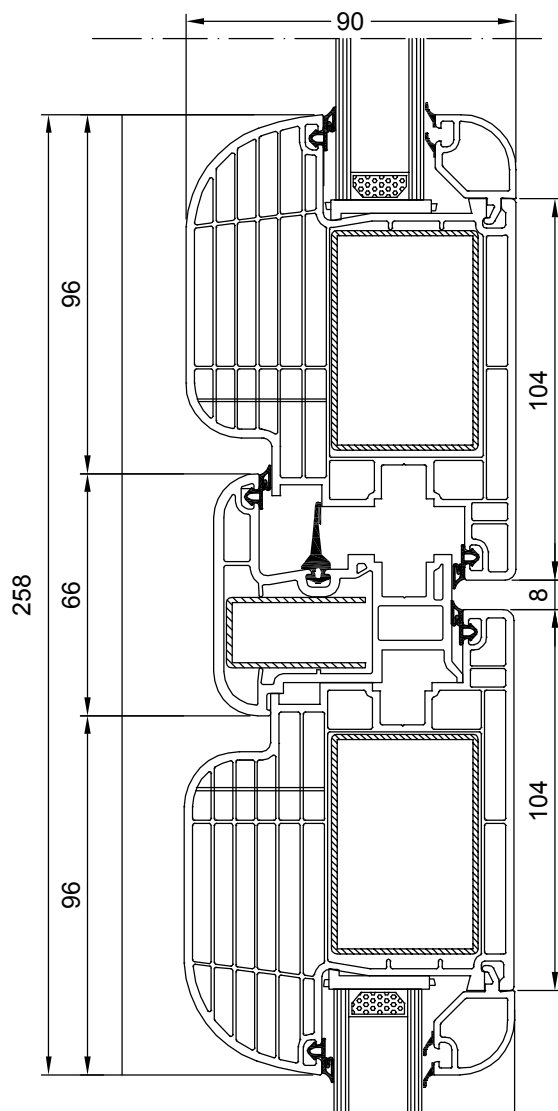




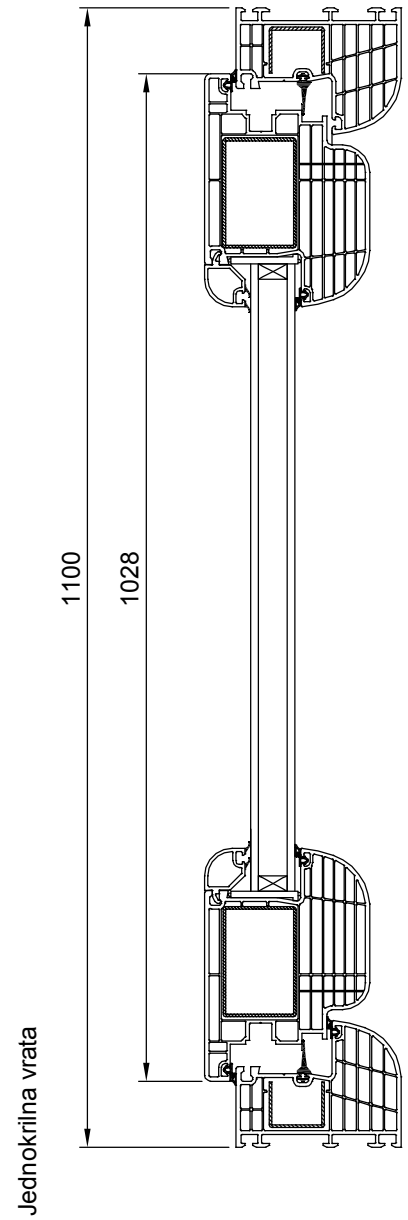
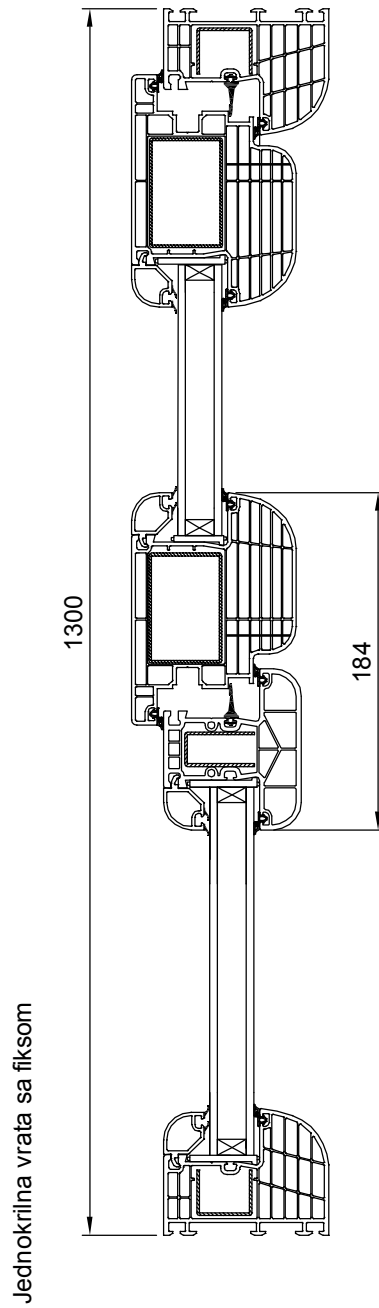
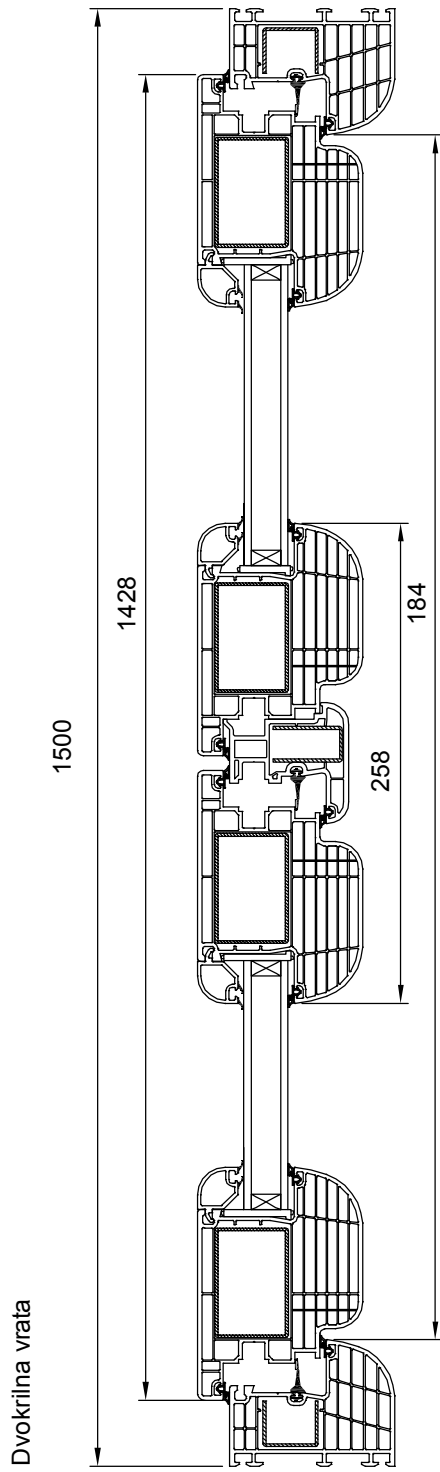
# DVOKRILNA ULAZNA VRATA SISTEM 800



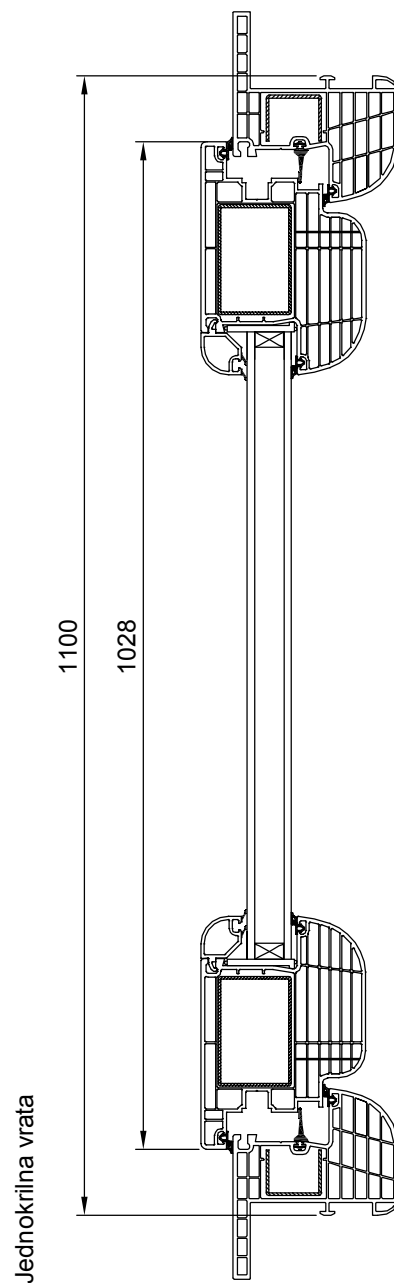
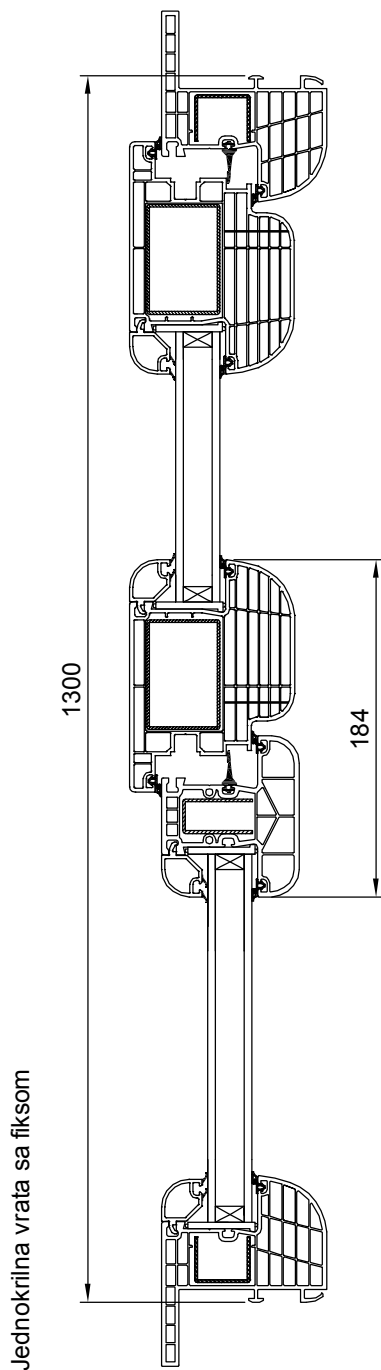
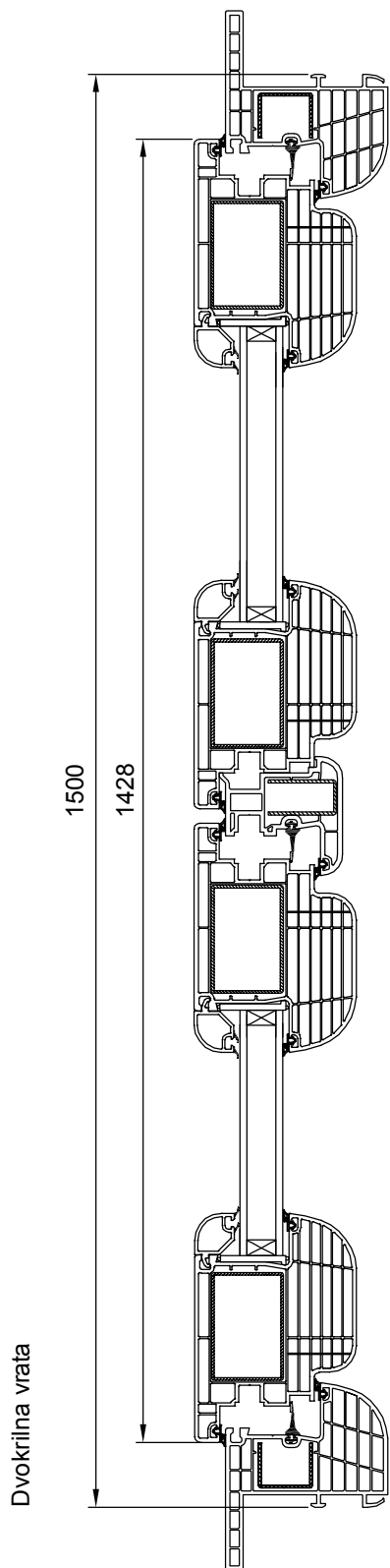
# DVOKRILNA ULAZNA VRATA RAM SA PEROM SISTEM 800



# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA SISTEM 800

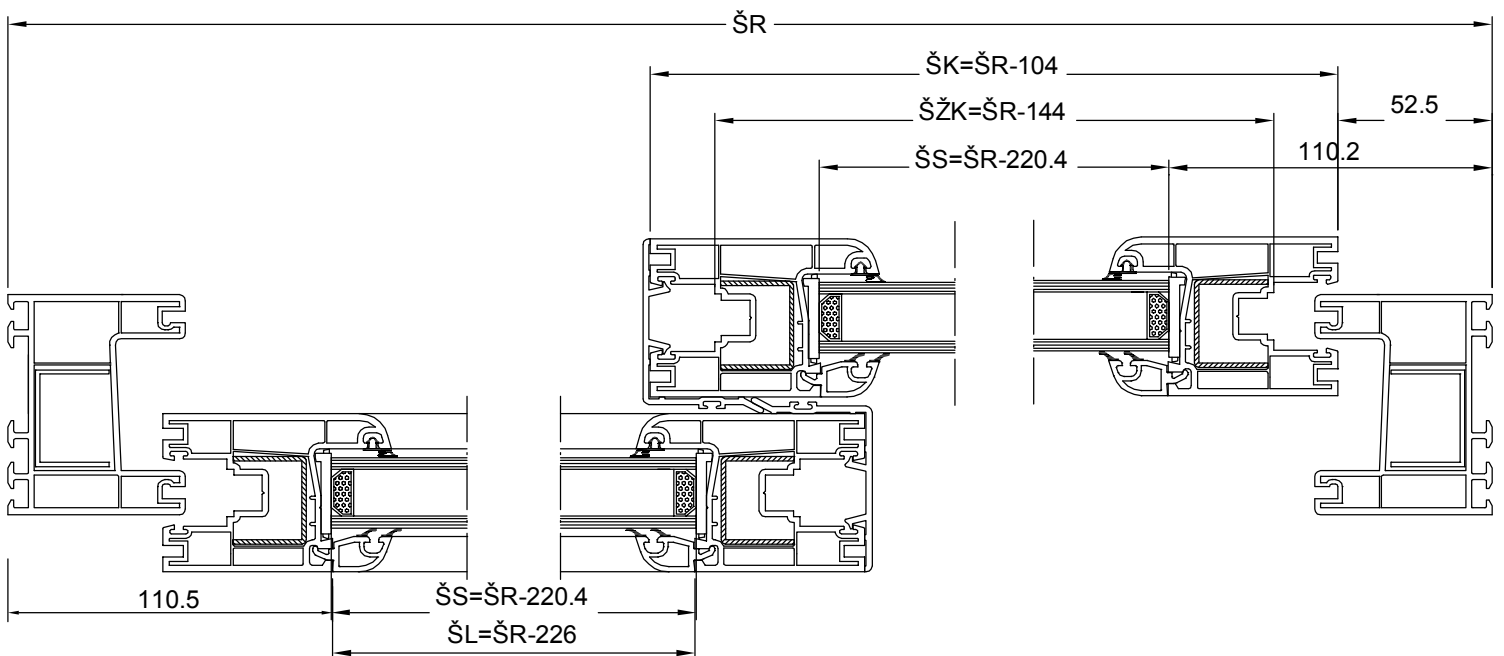
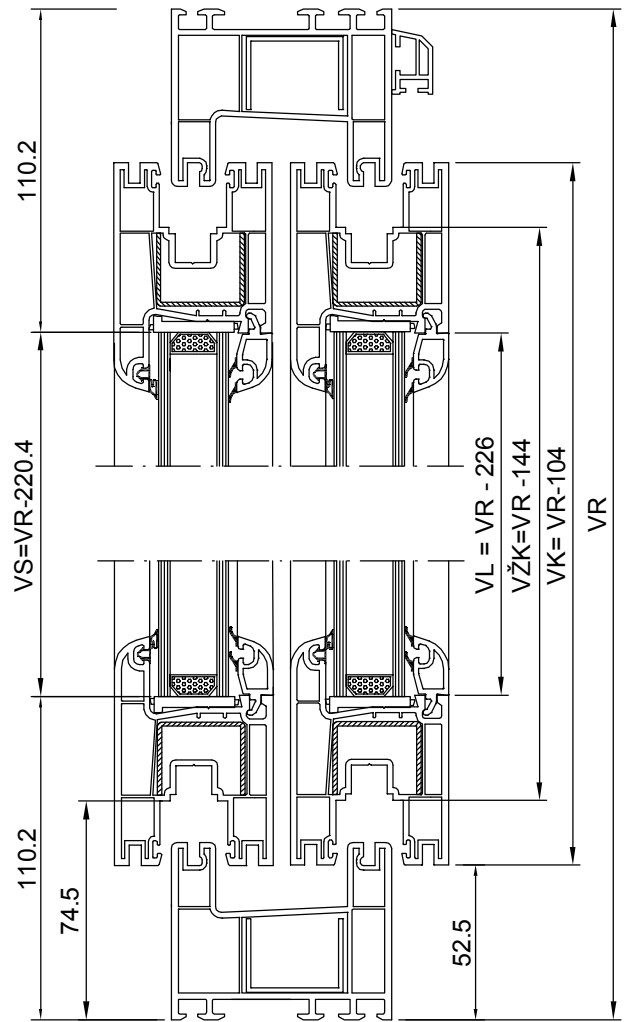
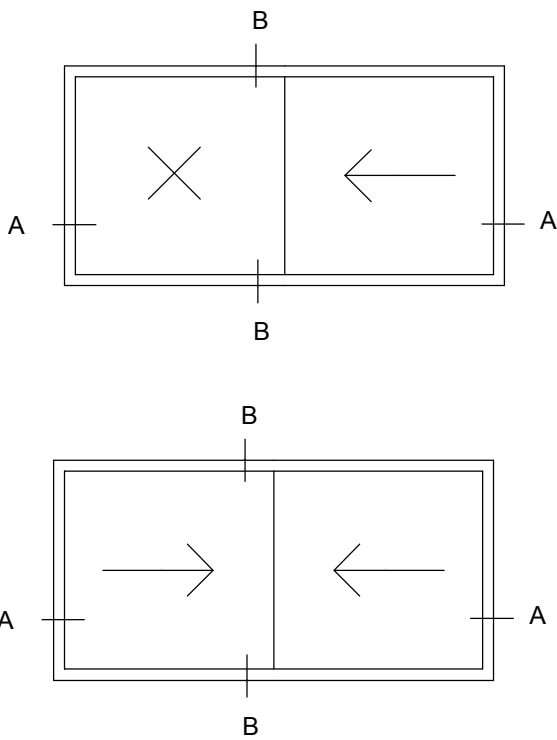


# PRIKAZ MOGUĆNOSTI OTVARANJA ULAZNIH VRATA RAM SA PEROM SISTEM 800

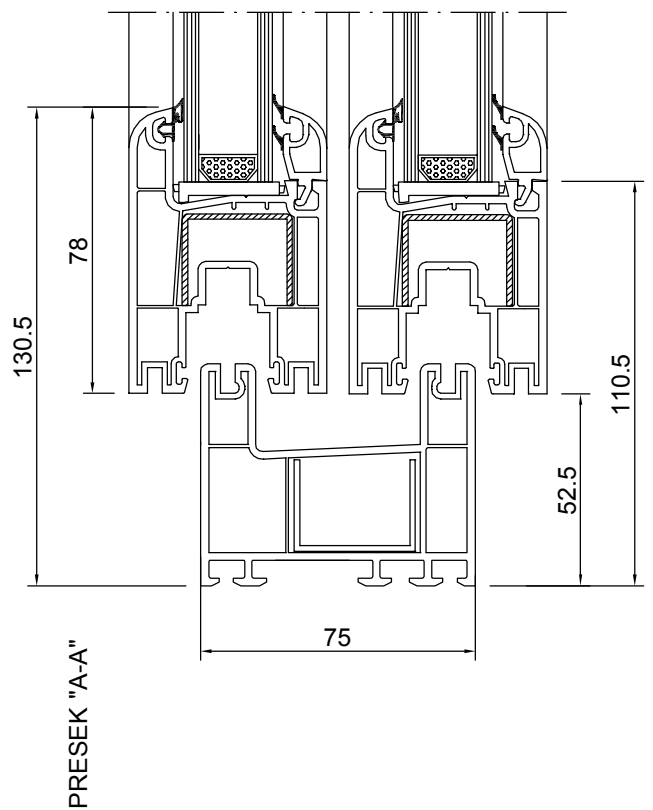
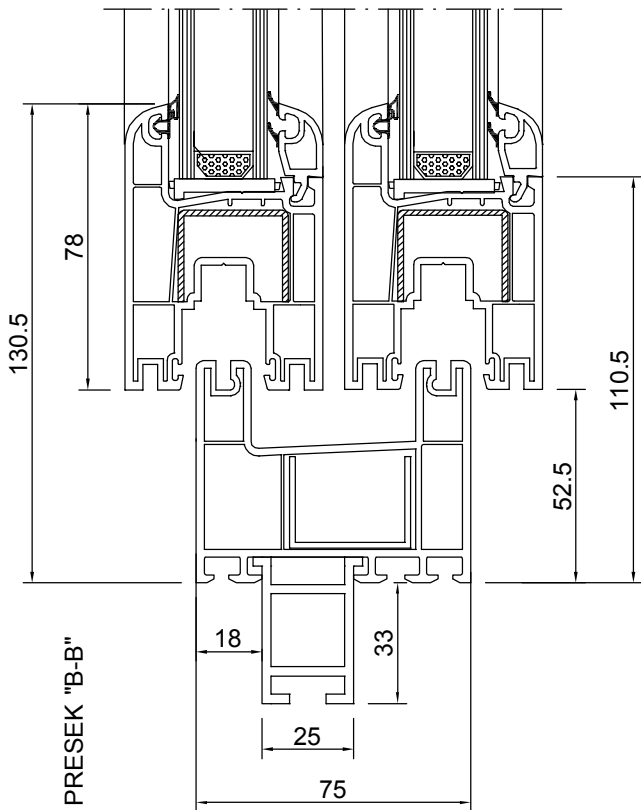
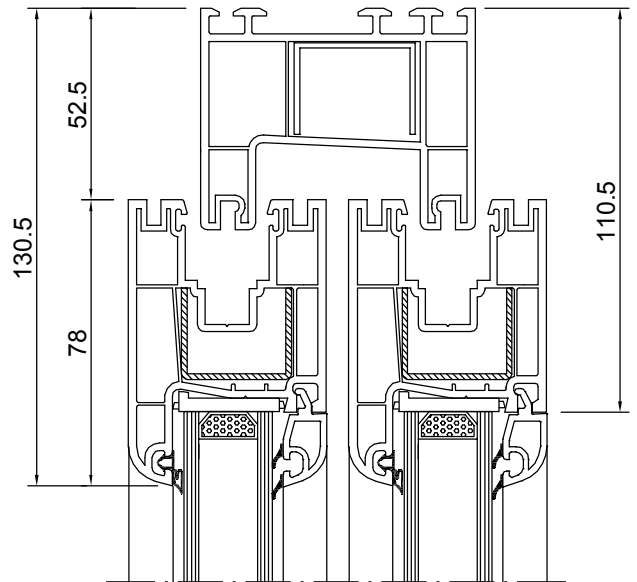
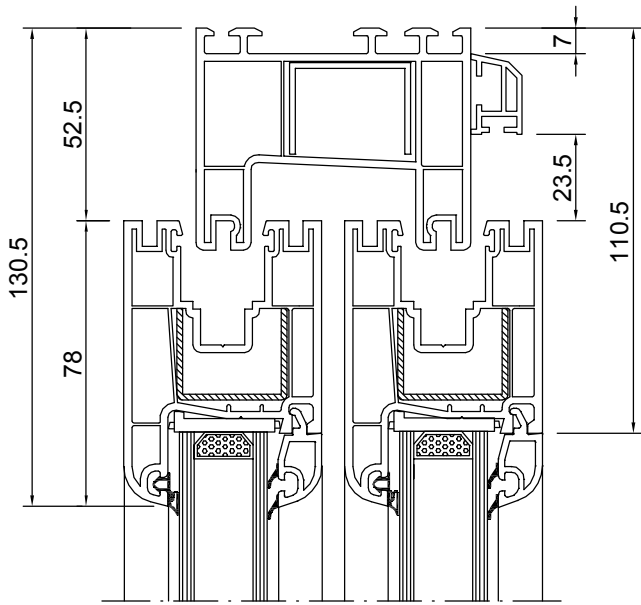
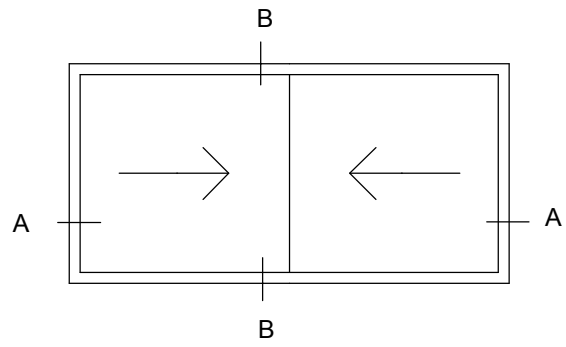
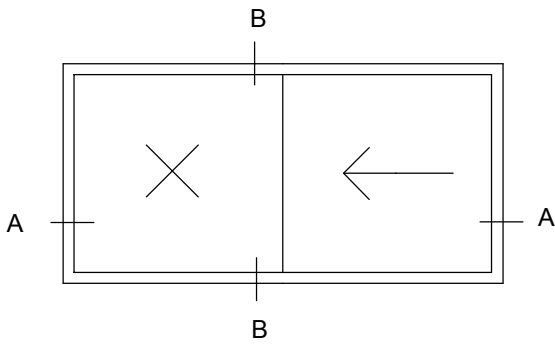


# KLIZNI PROZOR SISTEM 800

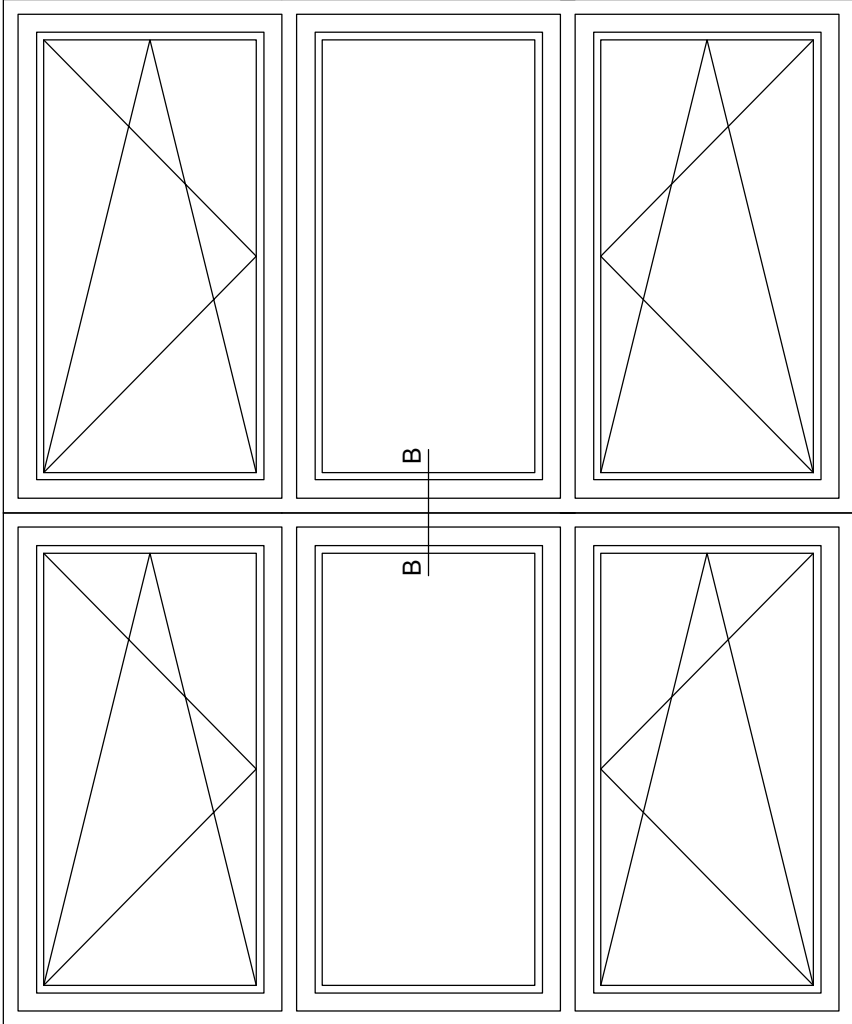
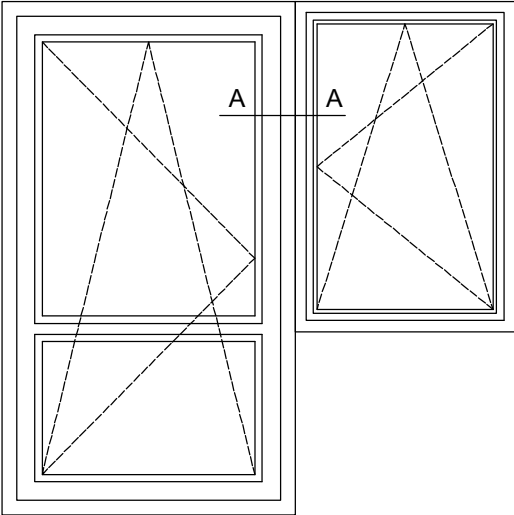
LEGENDA
ŠR= ŠIRINA RAMA
VR= VISINA RAMA
ŠK= ŠIRINA KRILA
VK= VISINA KRILA
ŠŽK= ŠIRINA ŽLJEBA KRILA
VŽK= VISINA ŽLJEBA KRILA
ŠL=ŠIRINA LAJSNE
VL=VISINA LAJSNE
ŠS= ŠIRINA STAKLA
VS= VISINA STAKLA



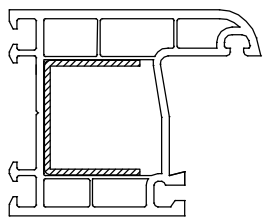
# KLIZNI PROZOR SISTEM 800



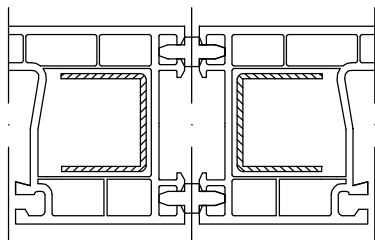
# 5.MOGUĆNOST SPAJANJA ELEMENATA



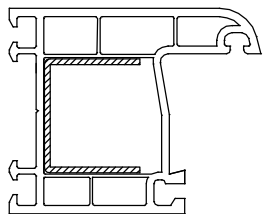
**MOGUĆNOST SPAJANJA ELEMENATA  
SISTEM 300**



Presek A-A

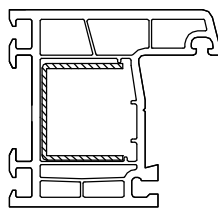


Lajsna za spajanje

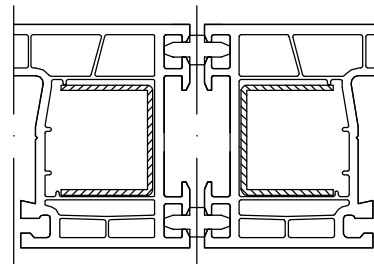


**SISTEM 301/301**

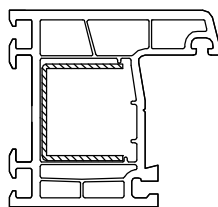
**MOGUĆNOST SPAJANJA ELEMENATA  
SISTEM 400**



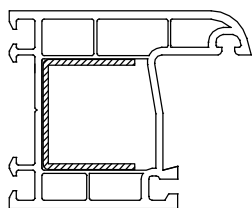
Presek A-A



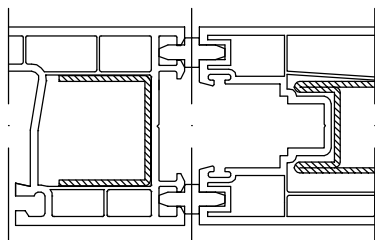
Lajsna za spajanje



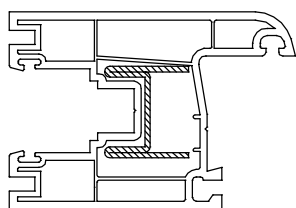
**SISTEM 401/401**



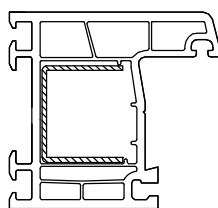
Presek A-A



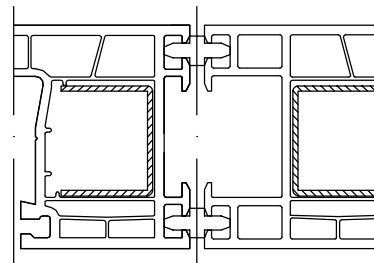
Lajsna za spajanje



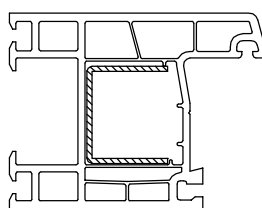
**SISTEM 301/810**



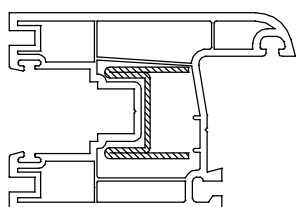
Presek A-A



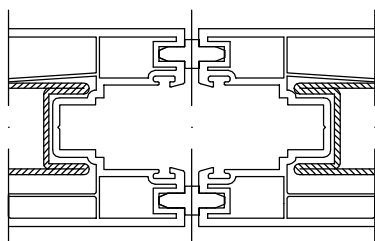
Lajsna za spajanje



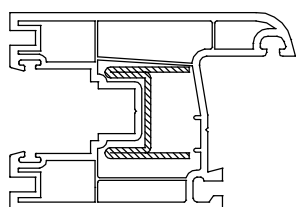
**SISTEM 401/403**



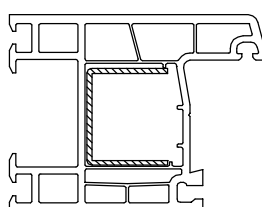
Presek A-A



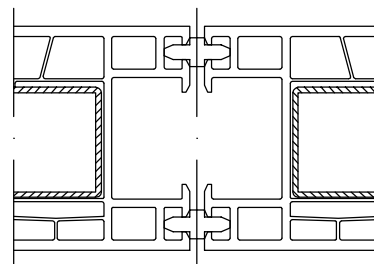
Lajsna za spajanje



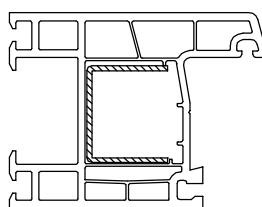
**SISTEM 810/810**



Presek A-A



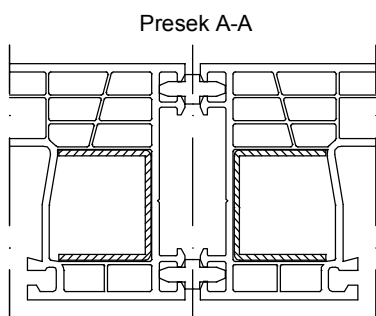
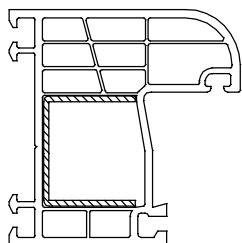
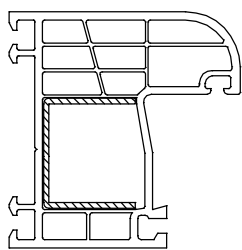
Lajsna za spajanje



**SISTEM 403/403**



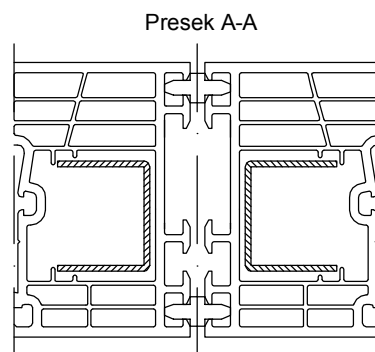
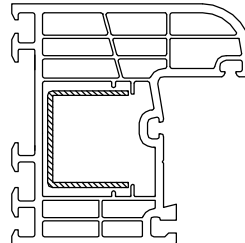
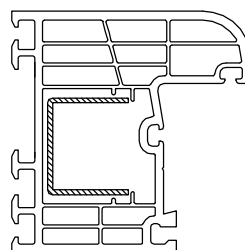
**MOGUĆNOST SPAJANJA ELEMENATA  
SISTEM 500**



Lajsna za spajanje

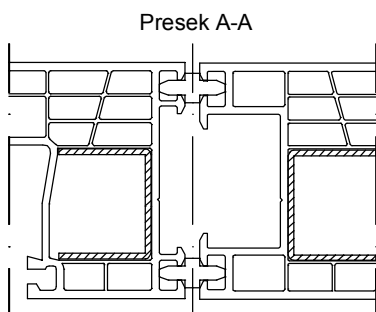
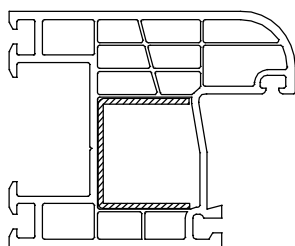
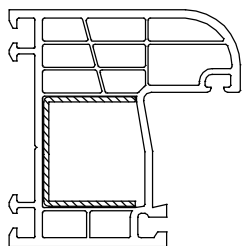
**SISTEM 501/501**

**MOGUĆNOST SPAJANJA ELEMENATA  
SISTEM 600**



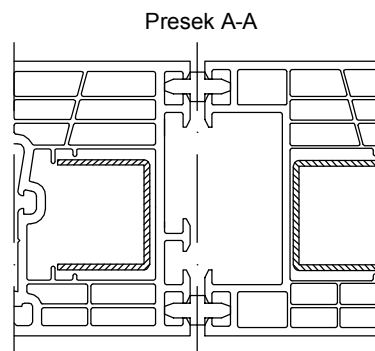
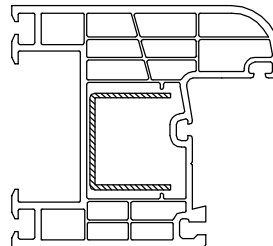
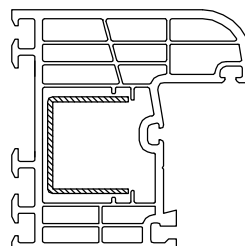
Lajsna za spajanje

**SISTEM 601/601**



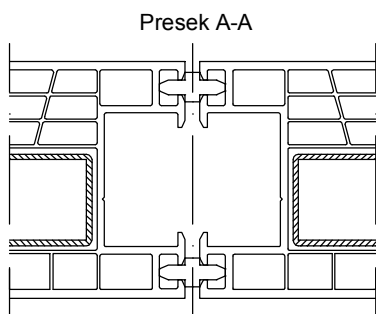
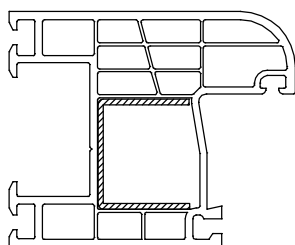
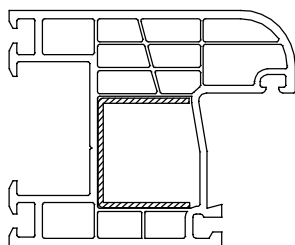
Lajsna za spajanje

**SISTEM 501/503**



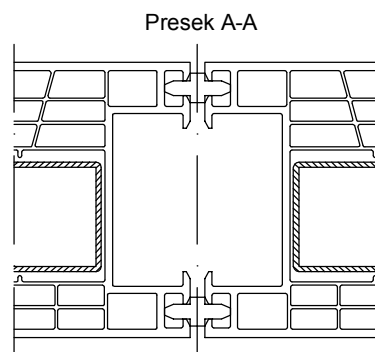
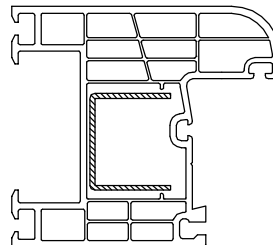
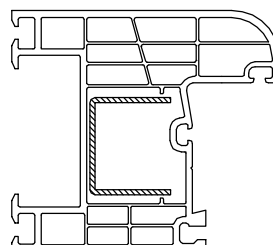
Lajsna za spajanje

**SISTEM 601/603**



Lajsna za spajanje

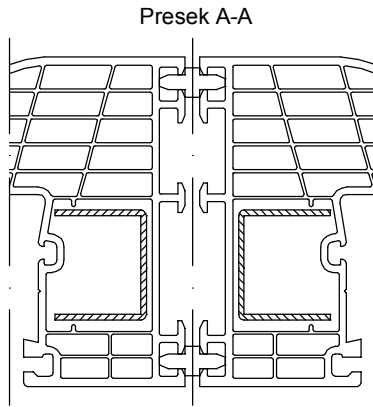
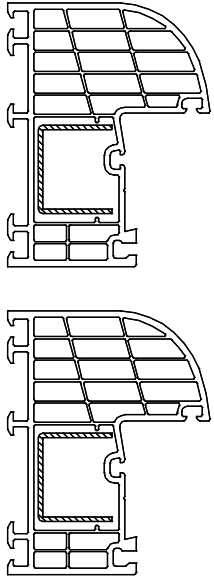
**SISTEM 503/503**



Lajsna za spajanje

**SISTEM 603/603**

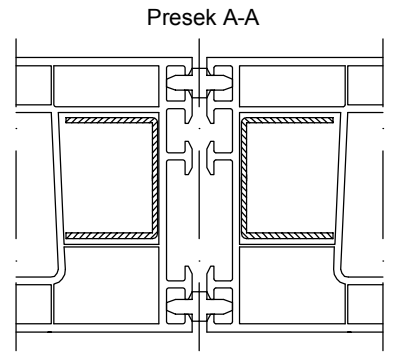
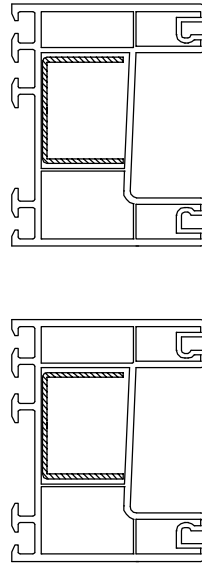
**MOGUĆNOST SPAJANJA ELEMENATA  
SISTEM 800**



Lajsna za spajanje

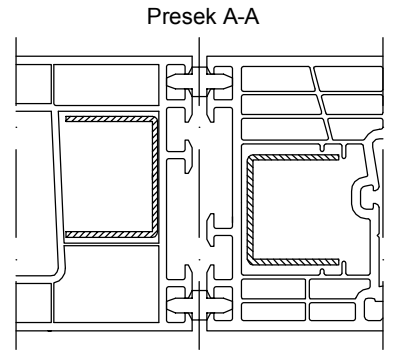
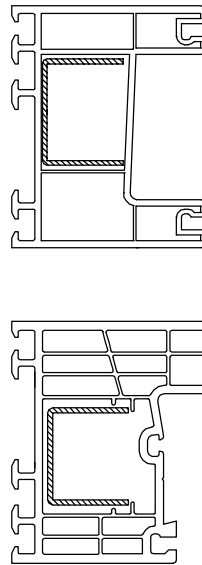
**SISTEM 802/802**

**MOGUĆNOST SPAJANJA ELEMENATA  
SISTEM 800 - ŠIBER**



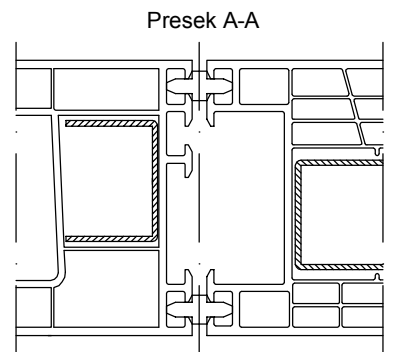
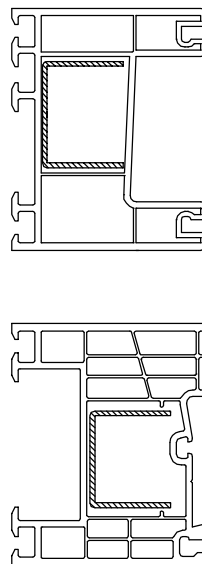
Lajsna za spajanje

**SISTEM 801/801**



Lajsna za spajanje

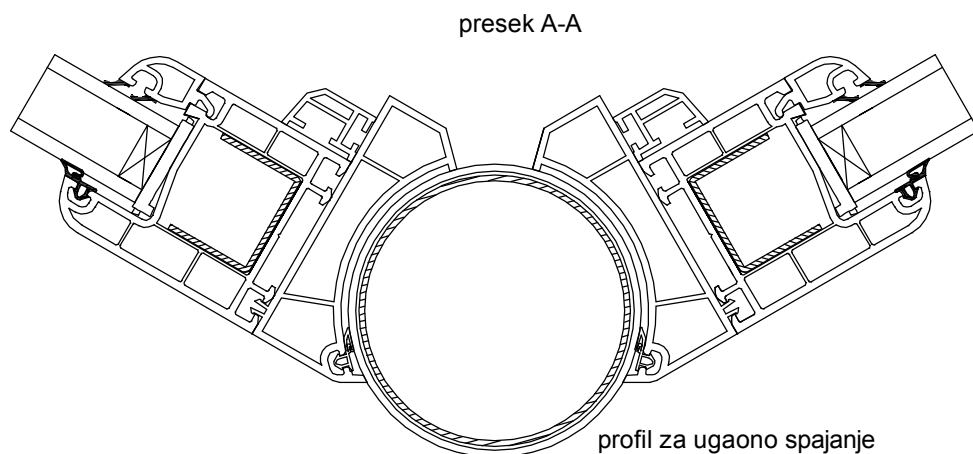
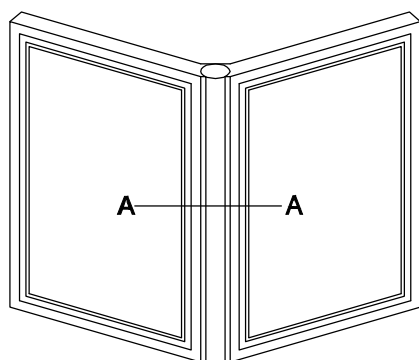
**SISTEM 801/601**



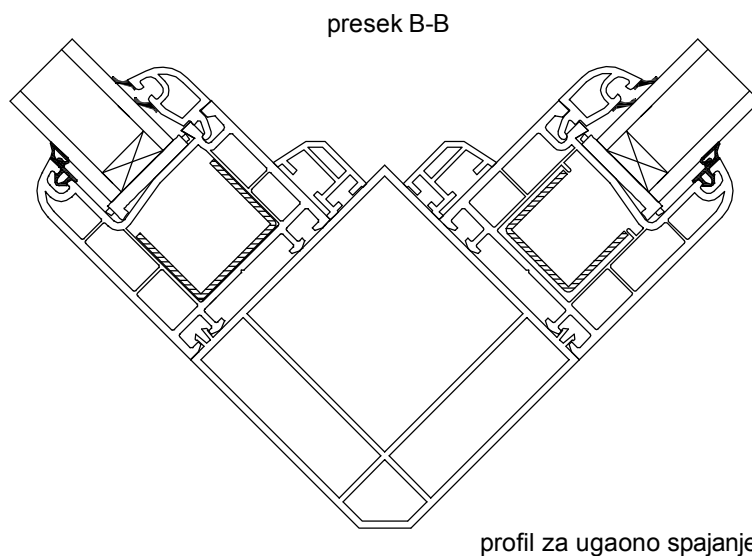
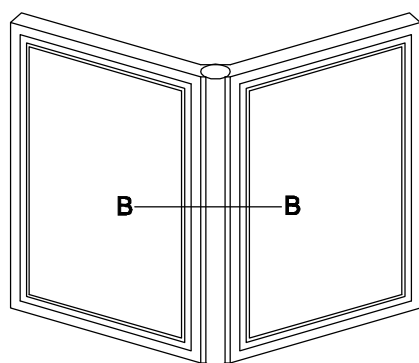
Lajsna za spajanje

**SISTEM 801/603**

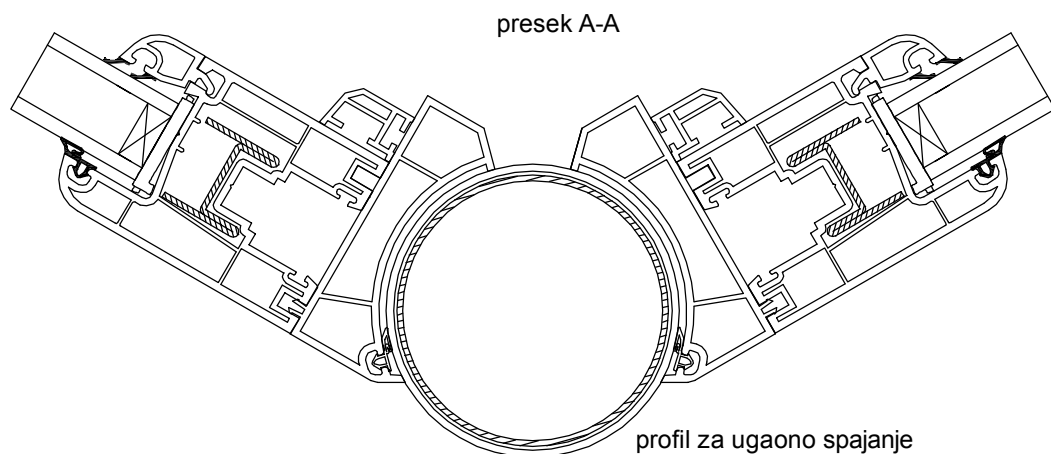
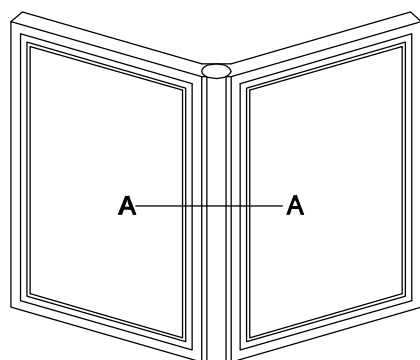
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 300



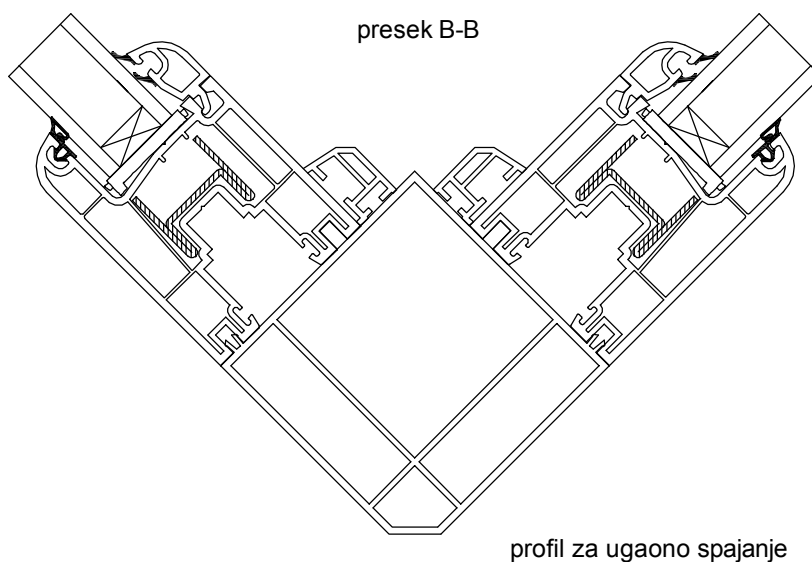
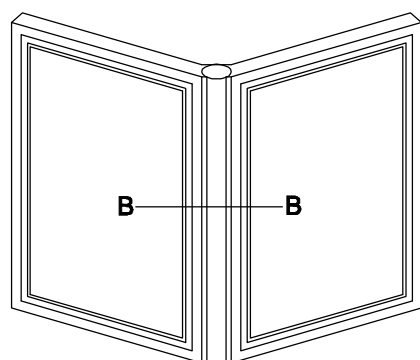
# SPAJANJE POD UGLOM 90° SISTEM 300



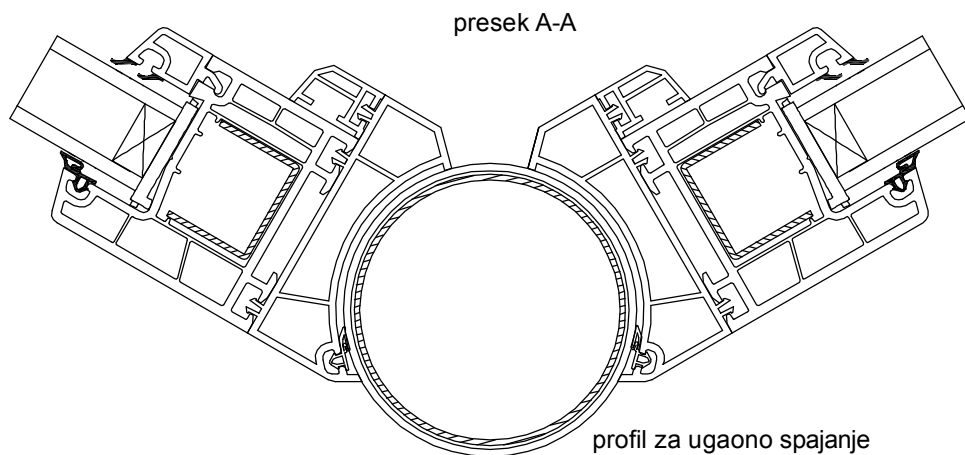
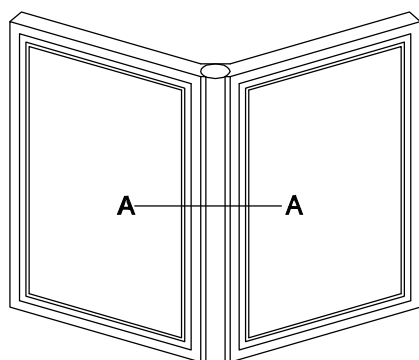
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 300



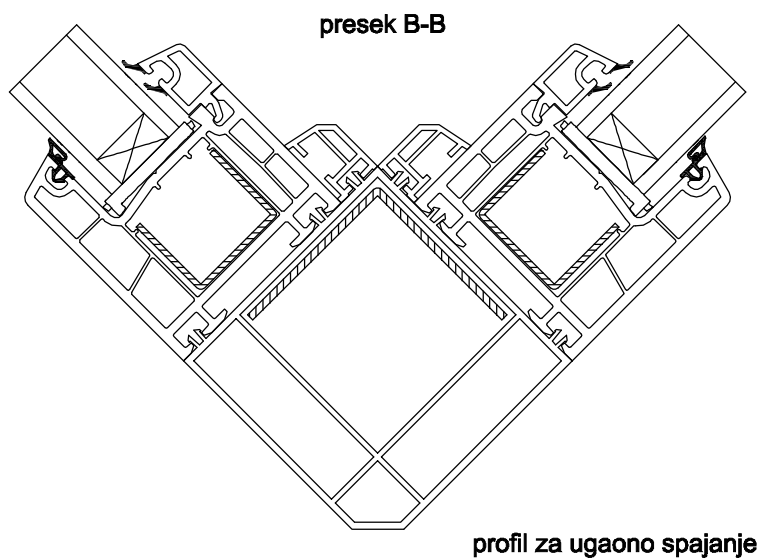
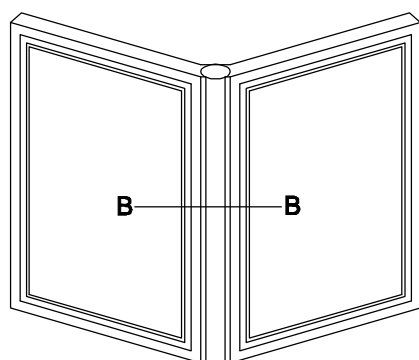
# SPAJANJE POD UGLOM 90° SISTEM 300



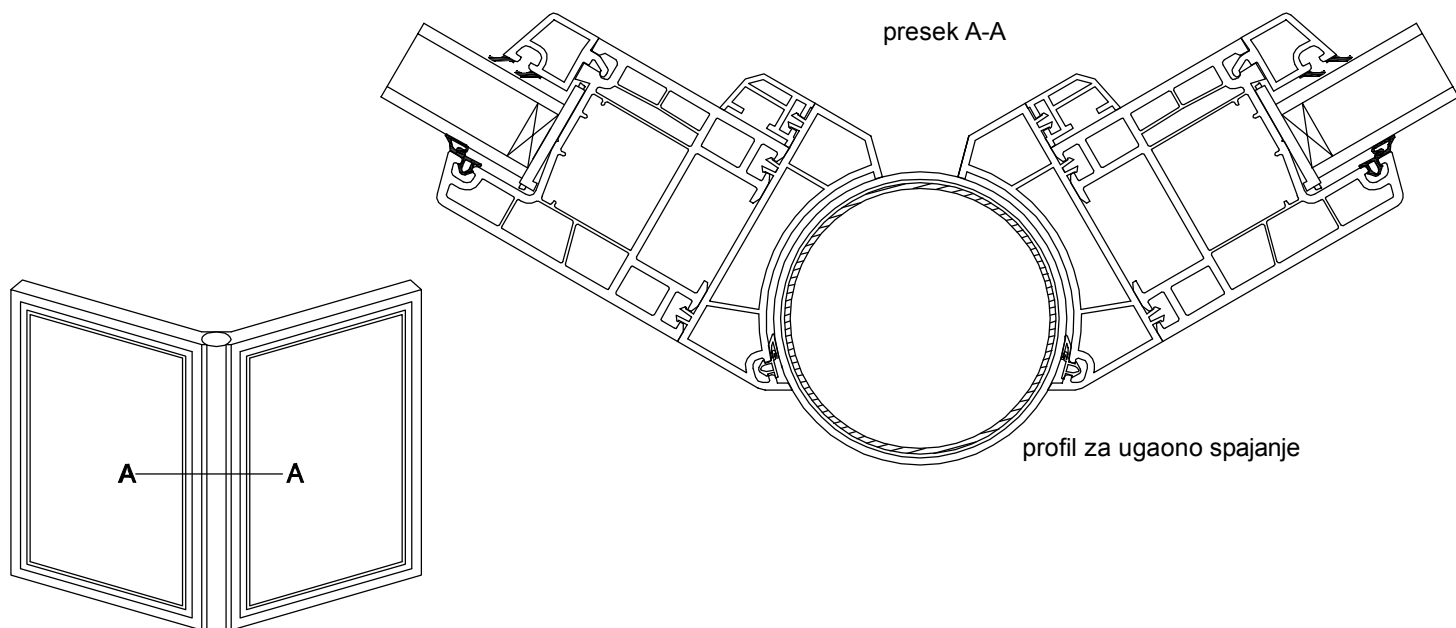
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 400



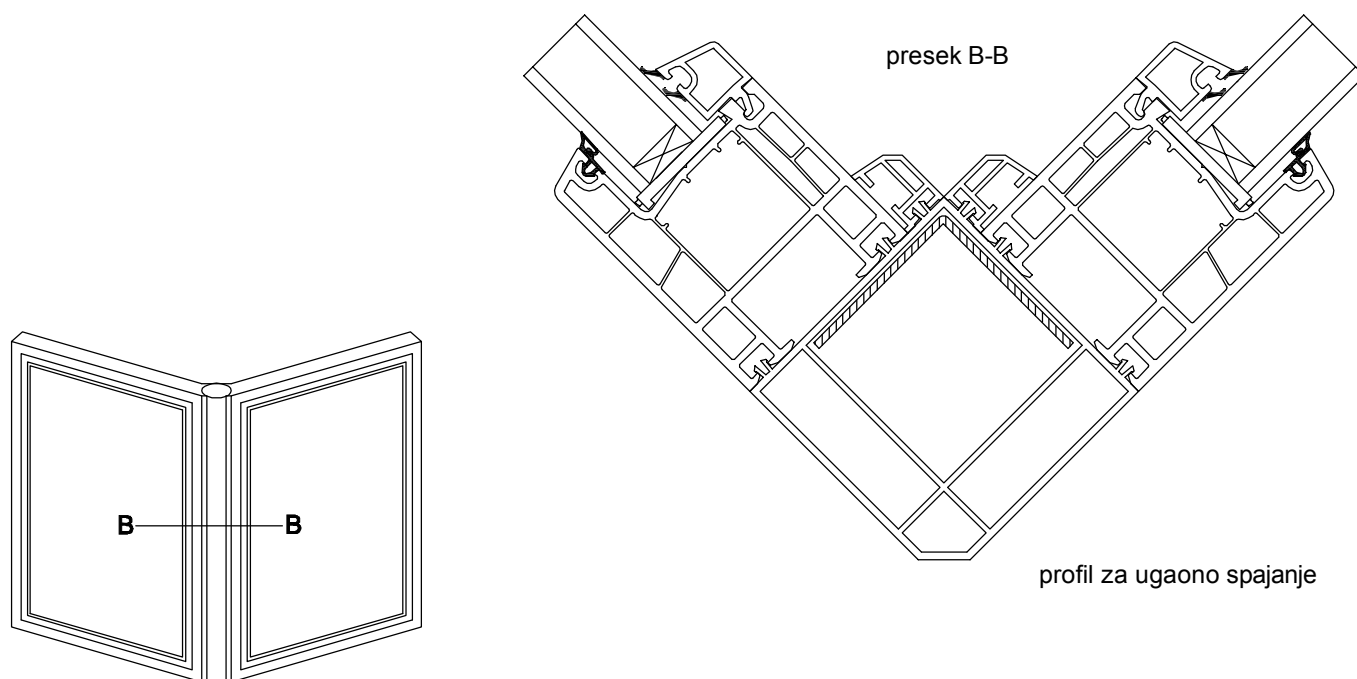
# SPAJANJE POD UGLOM 90° SISTEM 400



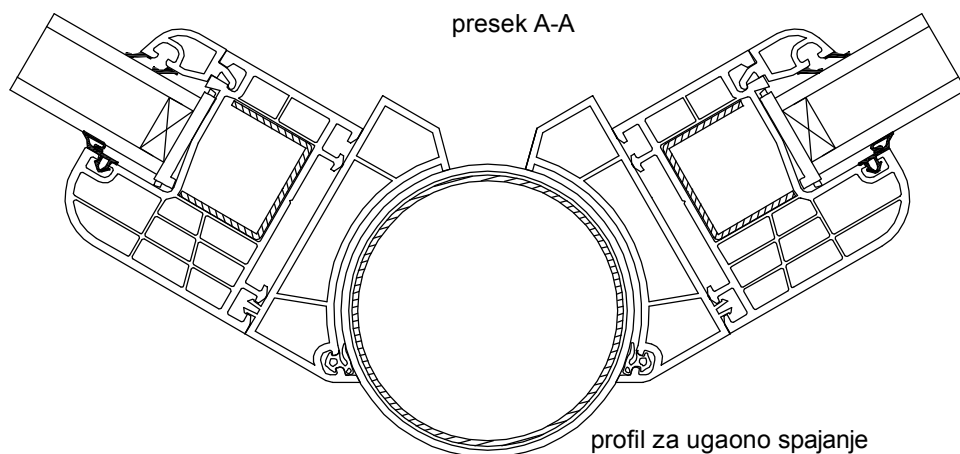
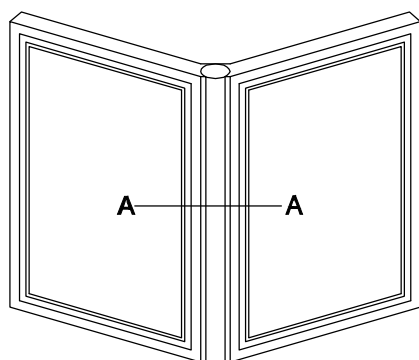
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 400



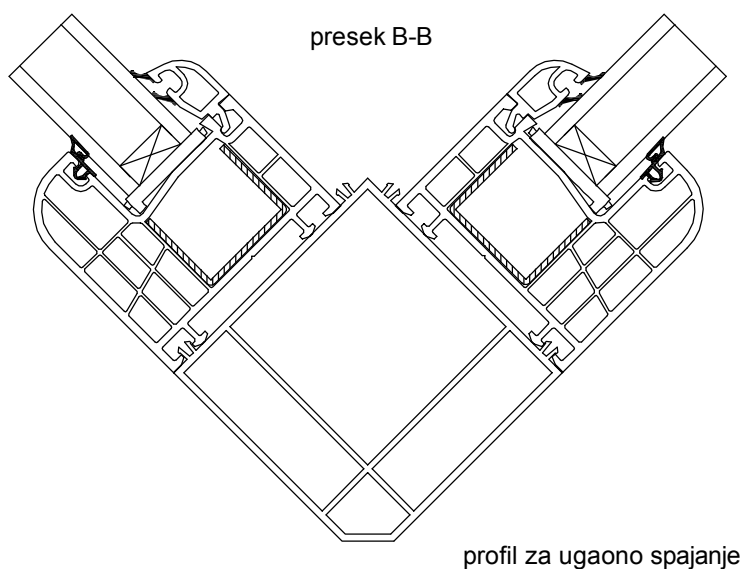
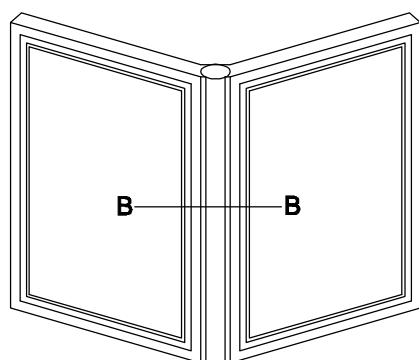
# SPAJANJE POD UGLOM 90° SISTEM 400



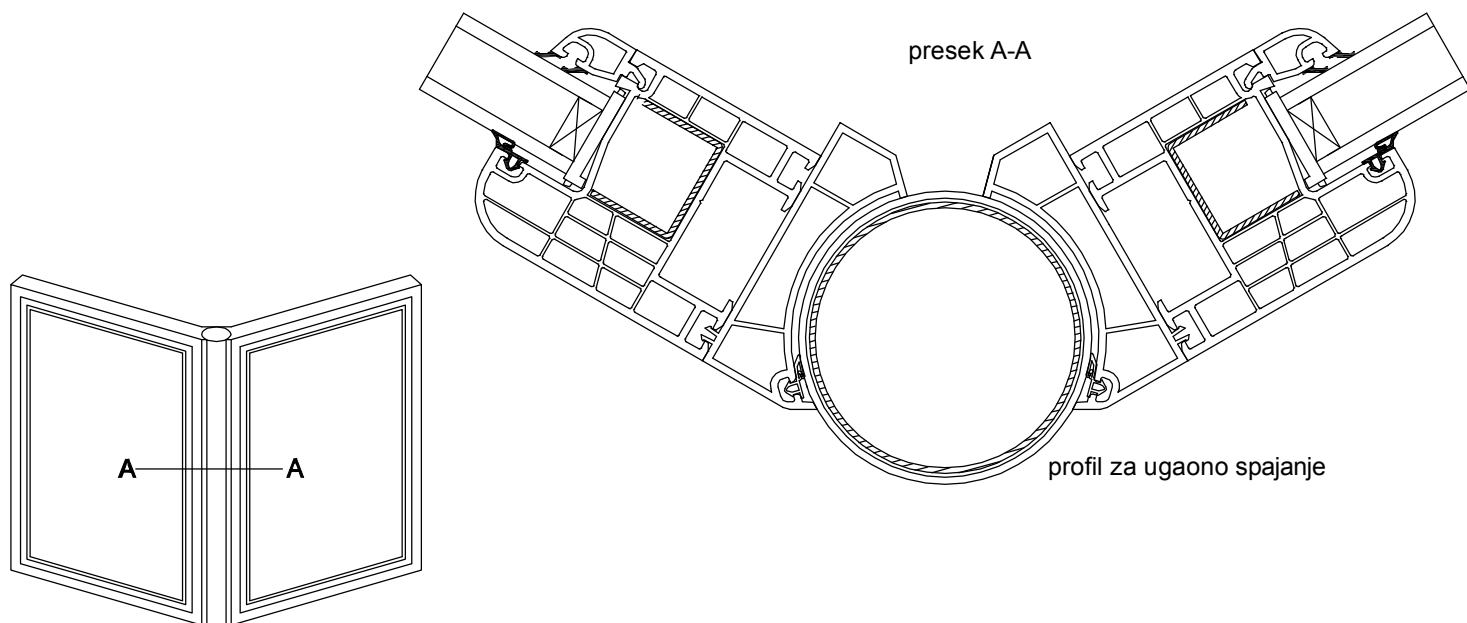
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 500



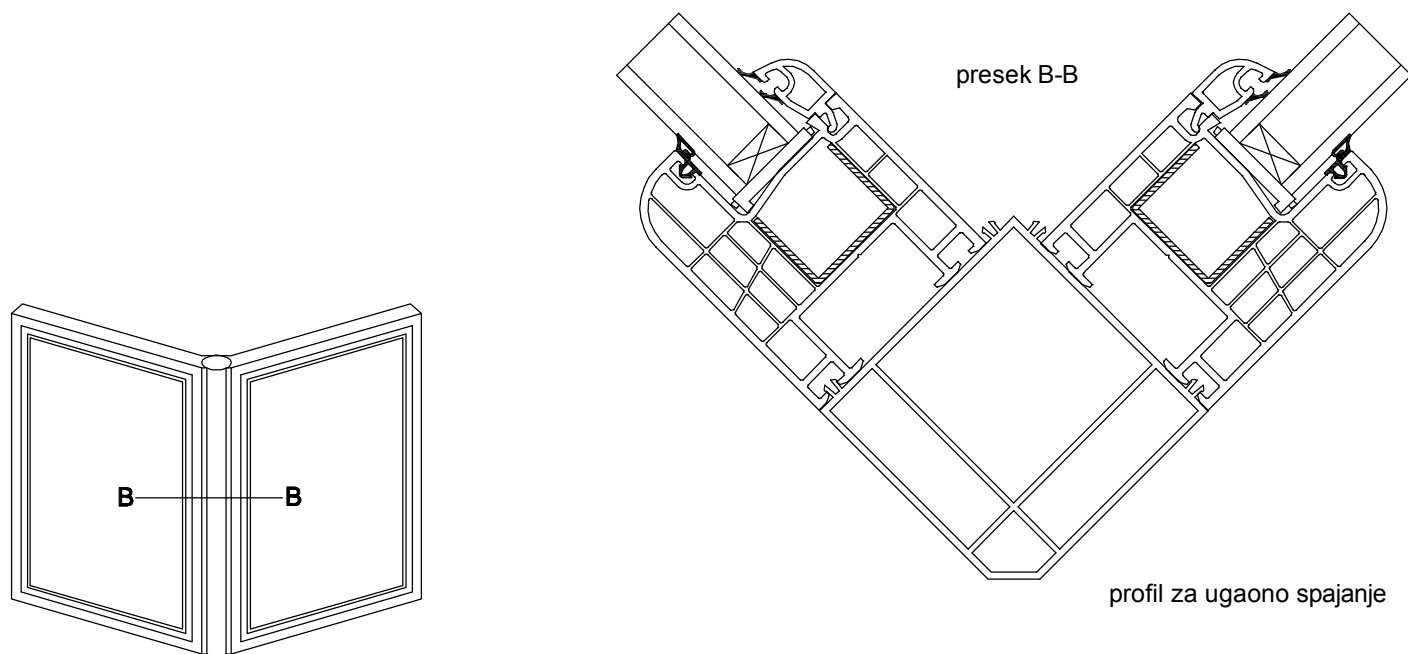
# SPAJANJE POD UGLOM 90° SISTEM 500



# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 500

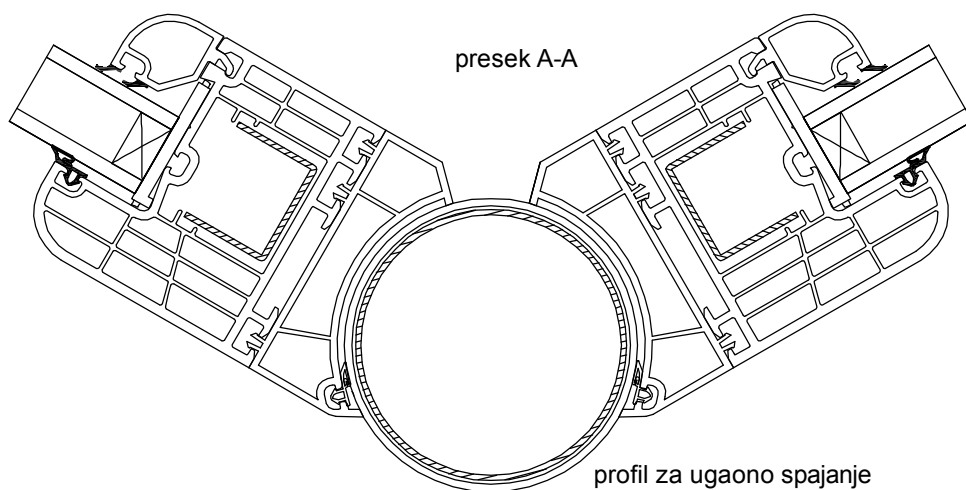
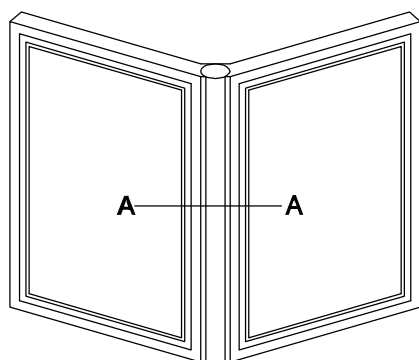


# SPAJANJE POD UGLOM 90° SISTEM 500

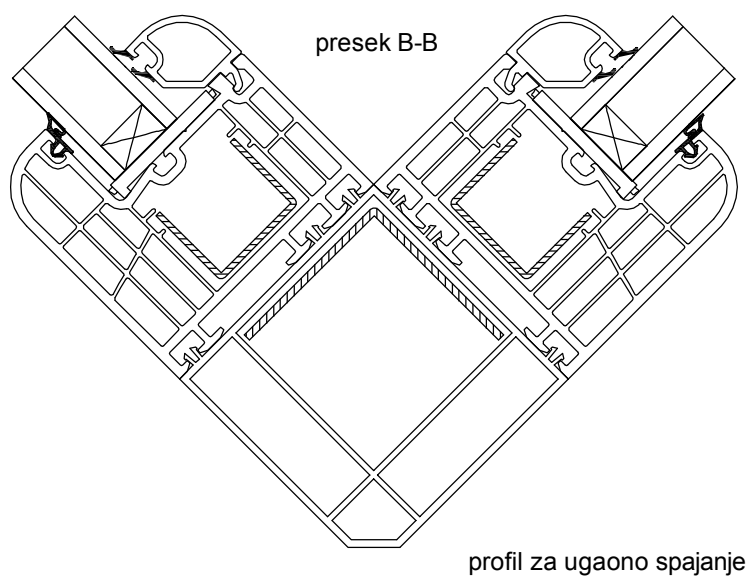
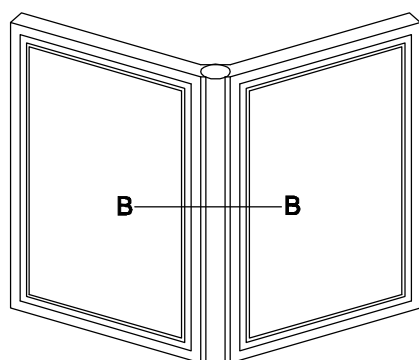




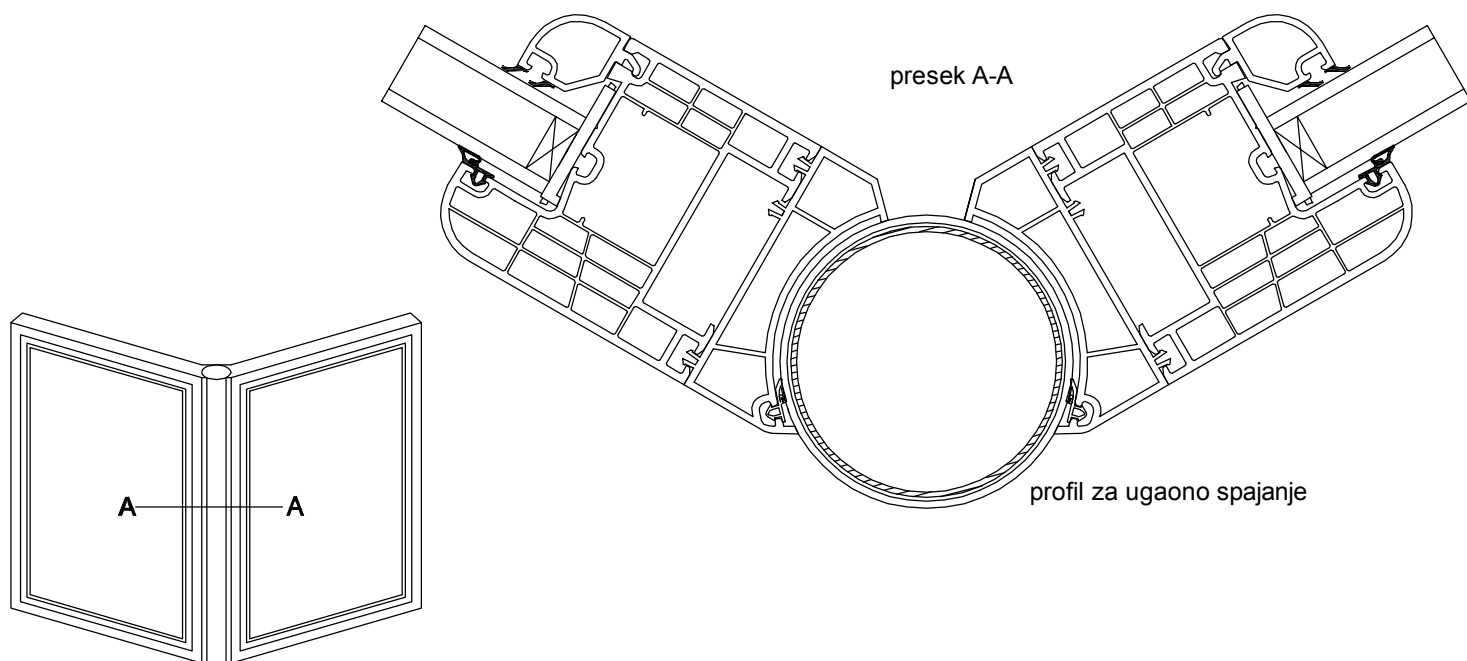
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 600



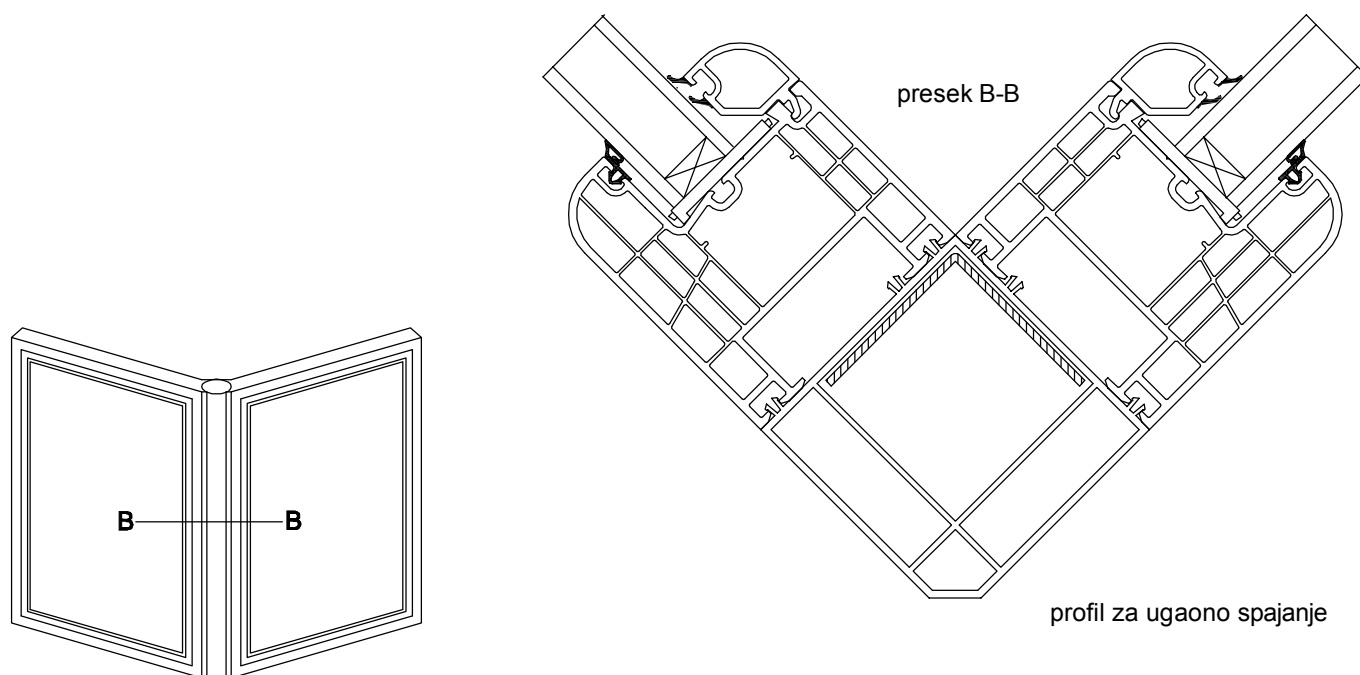
# SPAJANJE POD UGLOM 90° SISTEM 600



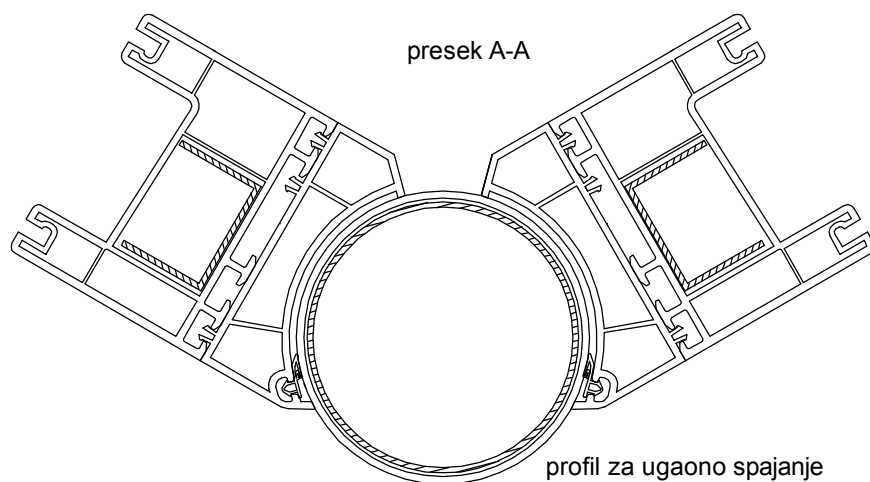
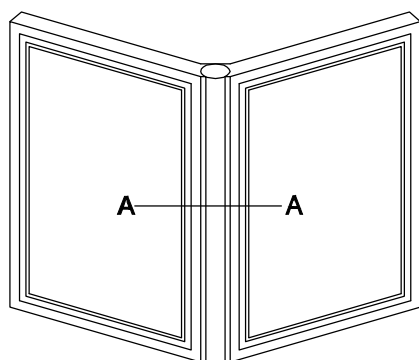
# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 600



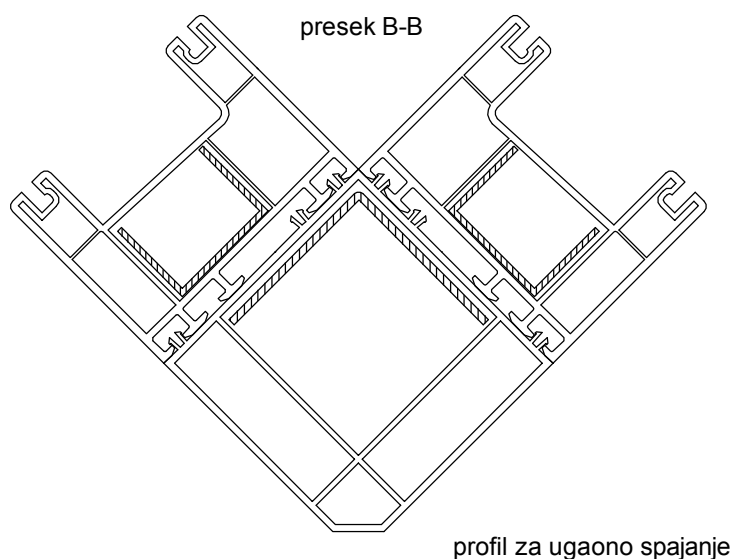
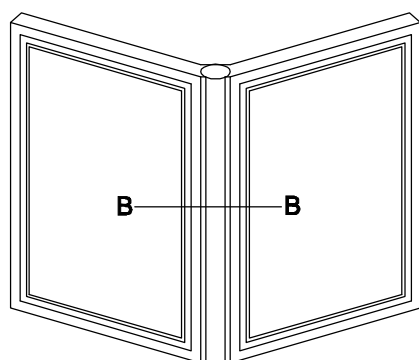
# SPAJANJE POD UGLOM 90° SISTEM 600



# SPAJANJE POD PODEŠAVAJUĆIM UGLOM SISTEM 800



# SPAJANJE POD UGLOM 90° SISTEM 800



## 6. OJAČANJE PROFILA

Statički proračun nekog građevinskog elementa treba dokazati da će taj element sigurno podneti sile koje na njega deluju i da se pri tome neće trajno deformisati ili uništiti. Prozor mora podneti sile koje deluju direktno na njega i preneti ih na zid.

Iako je prema DIN 18056 "Stakleni zidovi, mere i izvođenje", statički dokaz potreban tek za staklene zidove površine iznad  $9 \text{ m}^2$  i dužine 2 m. Statički proračun potreban je ipak i za manje elemente, ali u tom slučaju pismeni dokaz nije potreban.

### Osnove statičkog proračuna

Ugibu koji nastaje zbog opterećenja vetra i vlastite težine, materijal rama suprostavlja se svojim momentom inercije i svojom elastičnošću izraženom modulom elastičnosti E. Savojna elastičnost nekog profila izražava se proizvodom momenta inercije i modula elastičnosti E.

### Moment inercije

Moment inercije je vrednost koja se može izračunati iz geometrije preseka. Ta vrednost zavisi od preseka profila.

### Modul elastičnosti

Za razliku od momenta inercije, modul elastičnosti (E–modul) je veličina koja zavisi od materijala. E–modul je mera za otpornost nekog materijala na elastičnu deformaciju.

### E – moduli različitih materijala za izradu prozora

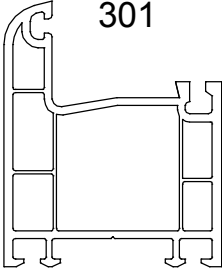
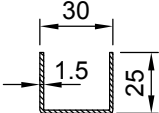
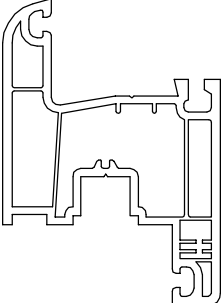
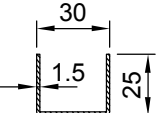
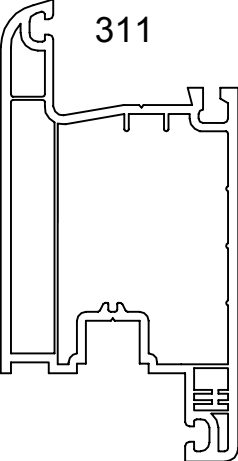
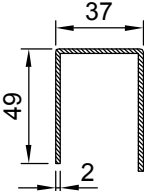
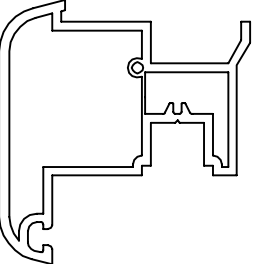
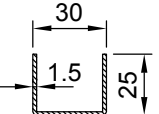
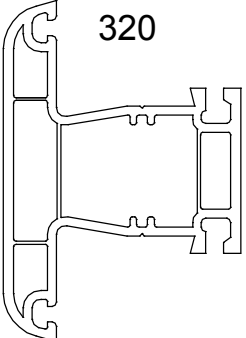
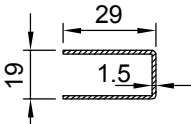
Materijal	E – modul u $\text{N/mm}^2$
tvrdi PVC	ca 2.700
drvo	ca 10.000
aluminijum	ca 70.000
čelik	ca 210.000

Zbog malog E–modula elastičnosti materijala PVC profili se moraju ojačavati kod određenih opterećenja i iznad određene dužine.

### Dozvoljeni ugibi

Dozvoljeni ugibi navedeni su u DIN 18056. Ugib za fiksnu prečku pod pravim uglom na ravan prozora ne sme biti veći od  $1/300$  dužine profila. Dalje kod ugrađivanja višeslojnog izo–stakla maksimalni ugib stakla ne sme prelaziti 8 mm. Kod podeljenih površina izo–stakla i specijalnih vrsta stakla merodavne su upute proizvođača stakla.

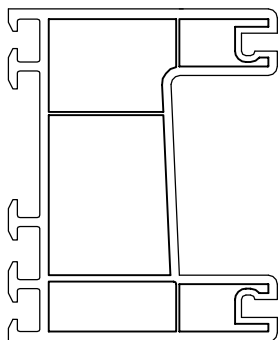
Ograničenja ugiba povezana sa ostakljivanjem obavezno se moraju poštovati jer osetljiva ivica izolacionog stakla lako može pući zbog rubnog ugiba.

Profil profile	ČELIČNO OJAČANJE
<p>301</p> 	<p>253025</p>  <p><math>I_x=0.75 \text{ cm}^4</math> <math>I_y=1.77 \text{ cm}^4</math></p>
<p>310</p> 	<p>253025</p>  <p><math>I_x=0.75 \text{ cm}^4</math> <math>I_y=1.77 \text{ cm}^4</math></p>
<p>311</p> 	<p>493749</p>  <p><math>I_x=6.93 \text{ cm}^4</math> <math>I_y=6.3 \text{ cm}^4</math></p>
<p>321</p> 	<p>253025</p>  <p><math>I_x=0.75 \text{ cm}^4</math> <math>I_y=1.77 \text{ cm}^4</math></p>
<p>320</p> 	<p>291929</p> 

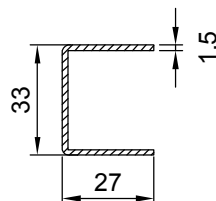
Profil  
profile

## ČELIČNO OJAČANJE

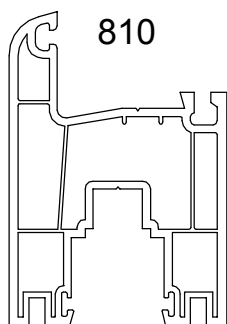
801



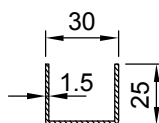
273327



810

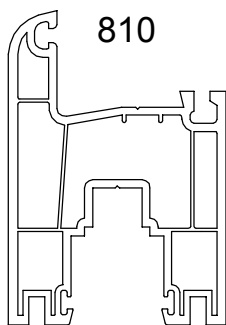


253025

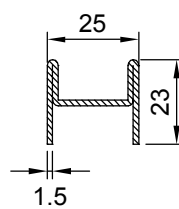


$I_x=0.75 \text{ cm}^4$   
 $I_y=1.77 \text{ cm}^4$

810



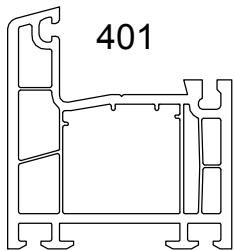
232523



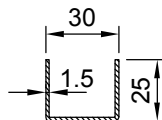
Profil  
profile

## ČELIČNO OJAČANJE

401

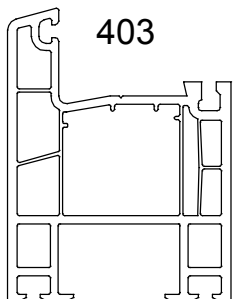


253025

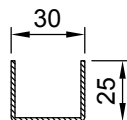


$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$

403

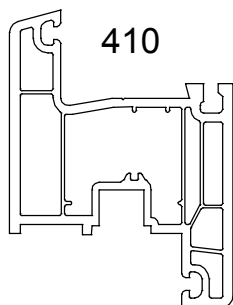


253025

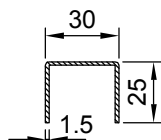


$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$

410

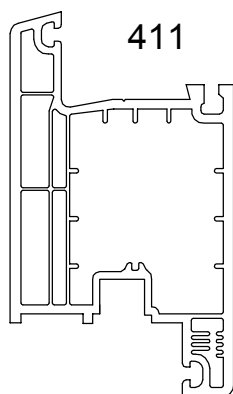


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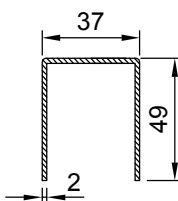


$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$

411

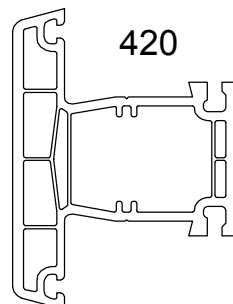


493749

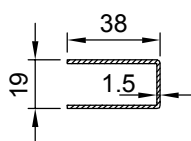


$$I_x = 7.18 \text{ cm}^4$$
$$I_y = 7.97 \text{ cm}^4$$

420

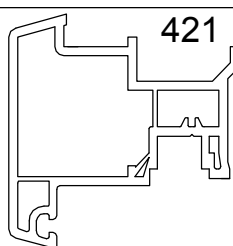


381938

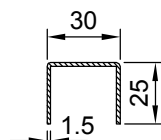


$$I_x = 2.04 \text{ cm}^4$$
$$I_y = 1.03 \text{ cm}^4$$

421



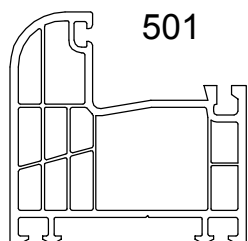
253025



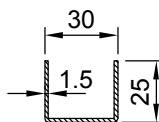
$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$

Profil  
profile

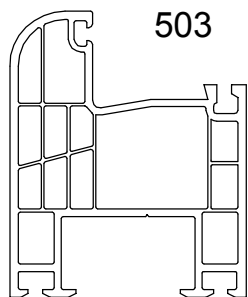
## ČELIČNO OJAČANJE



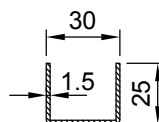
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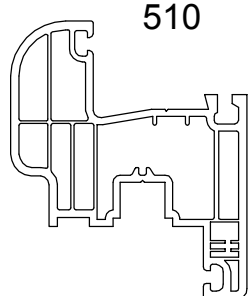
$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$



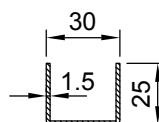
253025



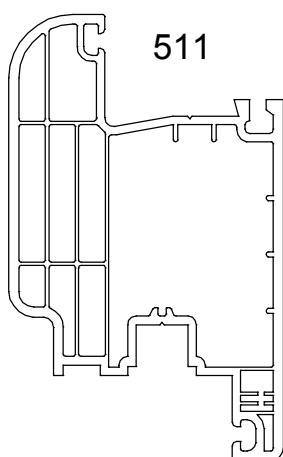
$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$



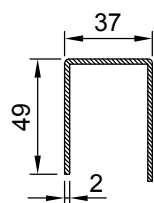
253025



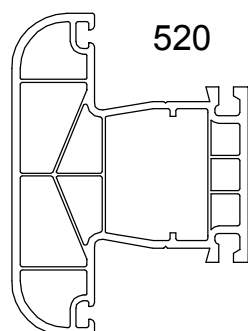
$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$



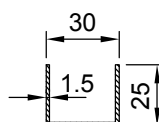
493749



$$I_x = 6.93 \text{ cm}^4$$
$$I_y = 6.3 \text{ cm}^4$$



253025

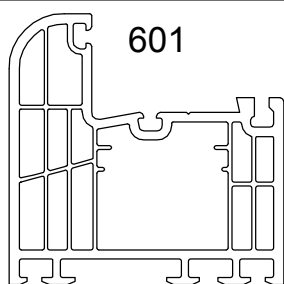


$$I_x = 0.75 \text{ cm}^4$$
$$I_y = 1.77 \text{ cm}^4$$

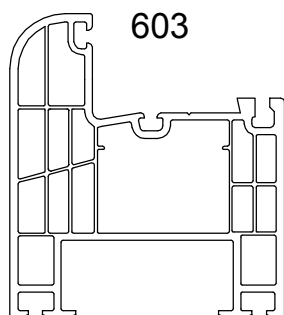
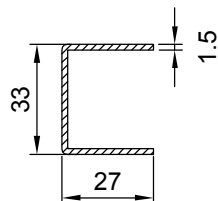


Profil  
profile

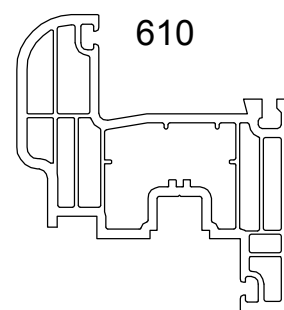
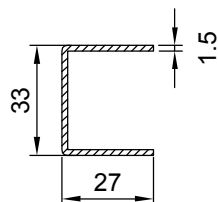
## ČELIČNO OJAČANJE



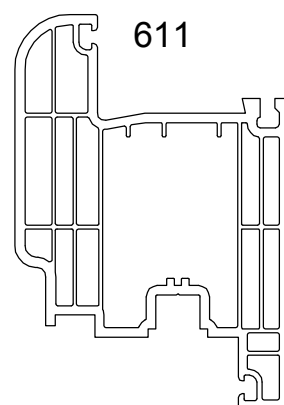
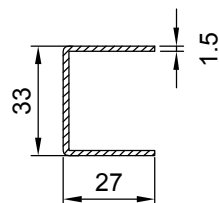
273327



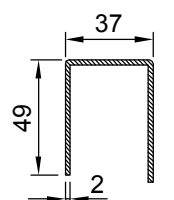
273327



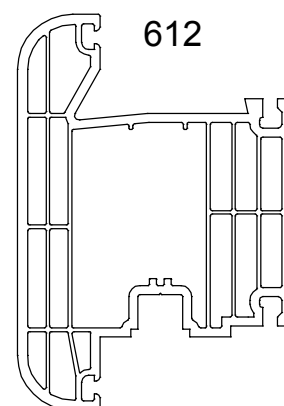
273327



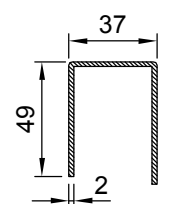
493749



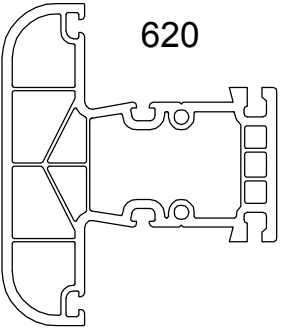
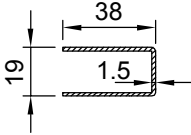
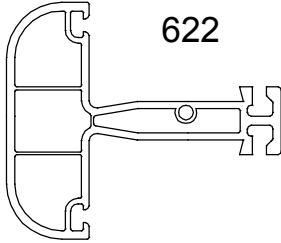
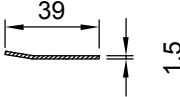
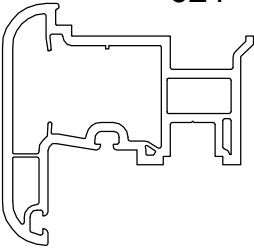
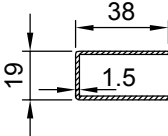
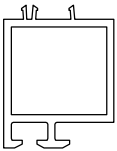
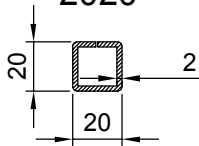
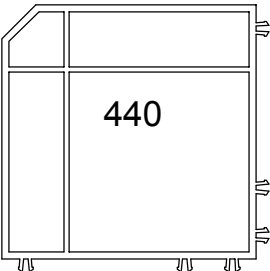
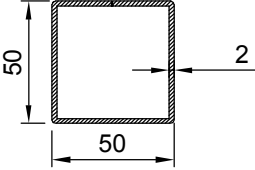
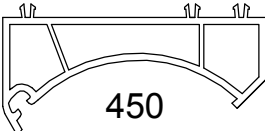
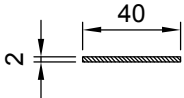
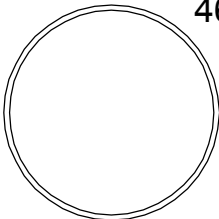
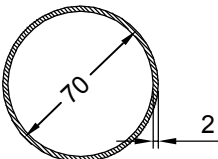
$I_x=6.93 \text{ cm}^4$   
 $I_y=6.3 \text{ cm}^4$



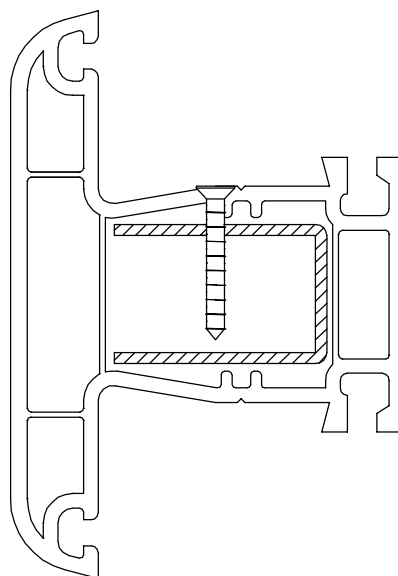
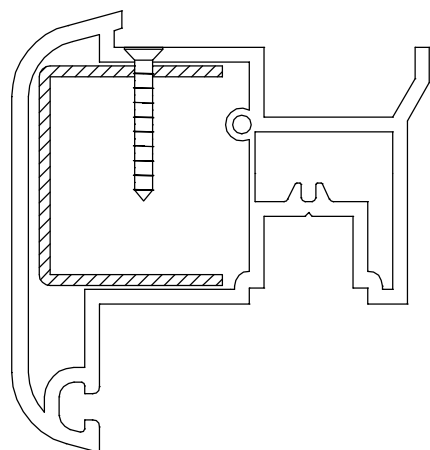
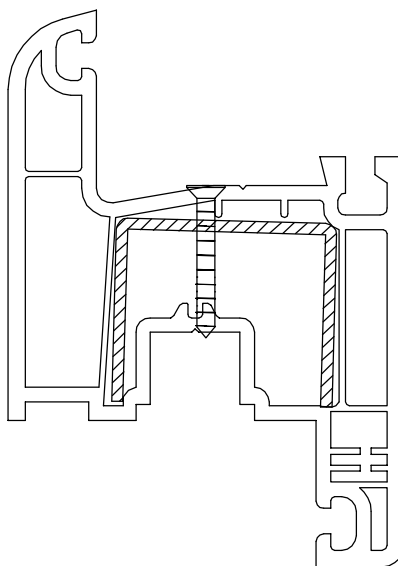
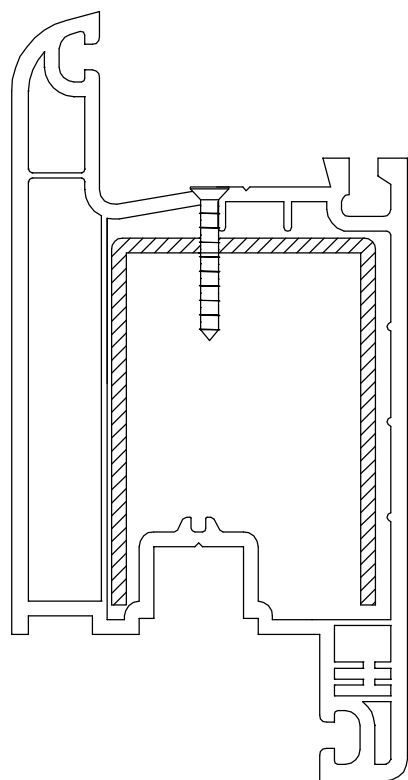
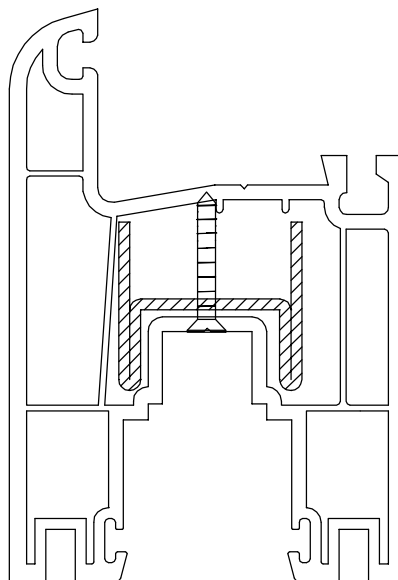
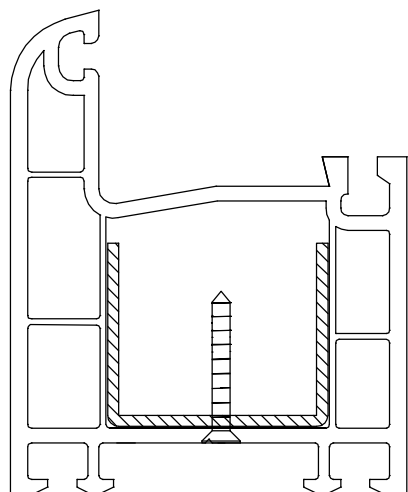
493749



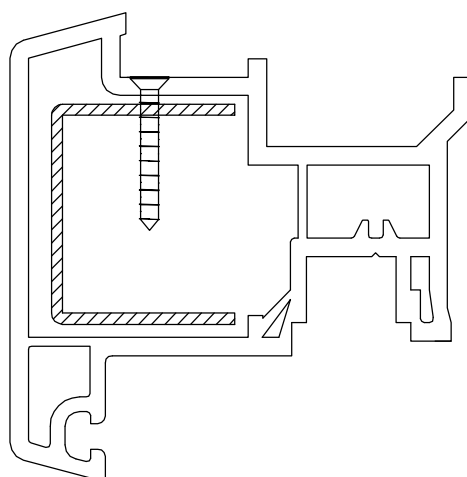
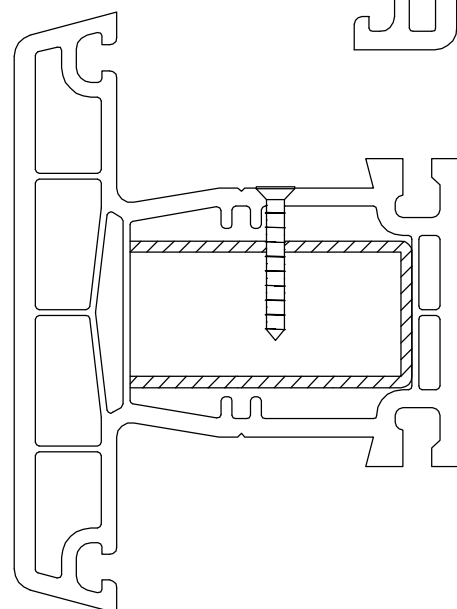
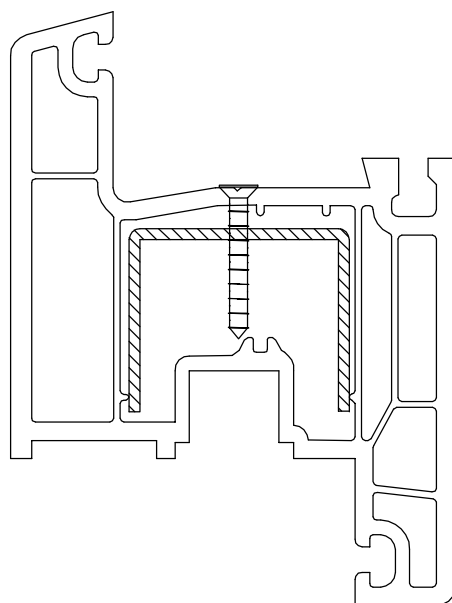
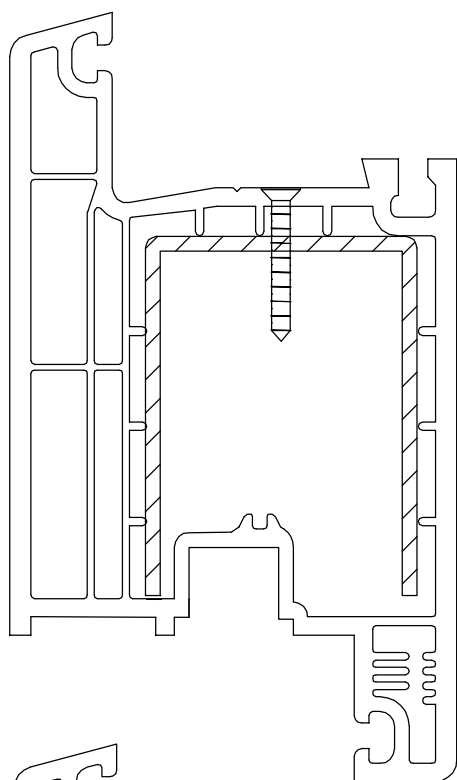
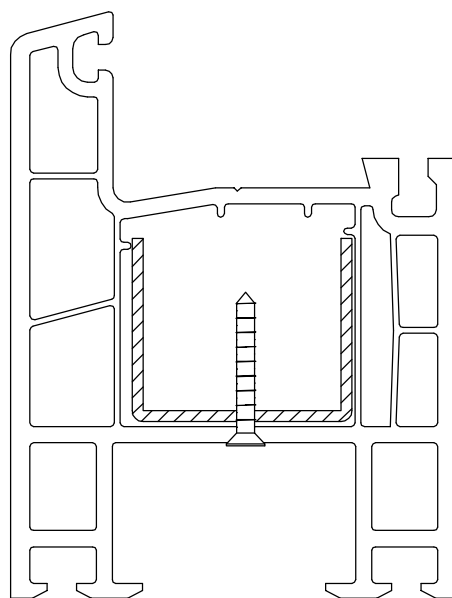
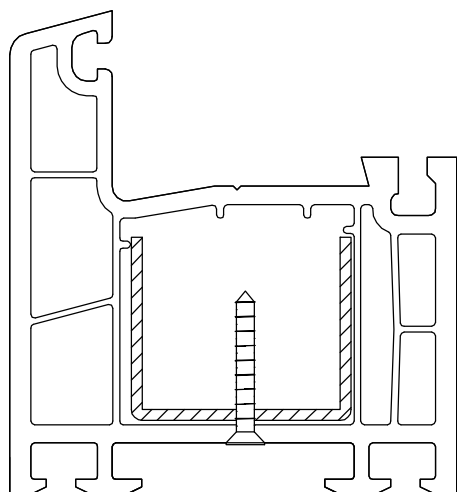
$I_x=6.93 \text{ cm}^4$   
 $I_y=6.3 \text{ cm}^4$

Profil profile	ČELIČNO OJAČANJE
 <p>620</p>	<p>381938</p>  <p><math>I_x=2.04 \text{ cm}^4</math> <math>I_y=1.03 \text{ cm}^4</math></p>
 <p>622</p>	<p>39x1.5</p> 
 <p>621</p>	<p>381938</p>  <p><math>I_x=2.04 \text{ cm}^4</math> <math>I_y=1.03 \text{ cm}^4</math></p>
 <p>402</p>	<p>2020</p>  <p><math>I_x=1.83 \text{ cm}^4</math> <math>I_y=2.44 \text{ cm}^4</math></p>
 <p>440</p>	<p>5050</p>  <p><math>I_x=14.5 \text{ cm}^4</math> <math>I_y=14.5 \text{ cm}^4</math></p>
 <p>450</p>	<p>4002</p>  <p><math>I_x=0.0026 \text{ cm}^4</math> <math>I_y=1.1 \text{ cm}^4</math></p>
 <p>460</p>	<p>FI 70</p>  <p><math>I_x=18.3 \text{ cm}^4</math> <math>I_y=18.3 \text{ cm}^4</math></p>

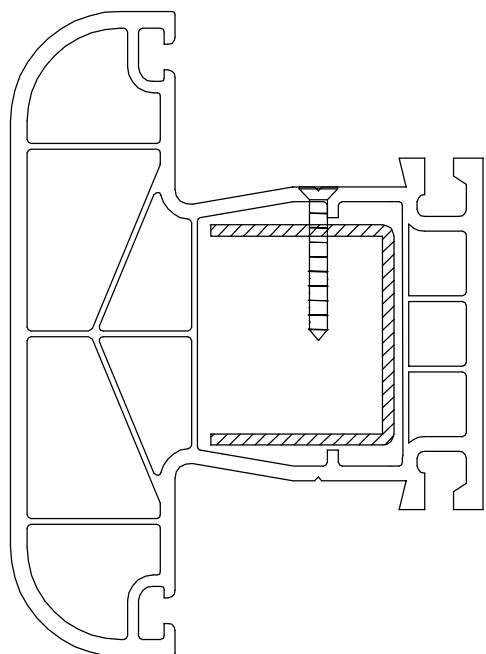
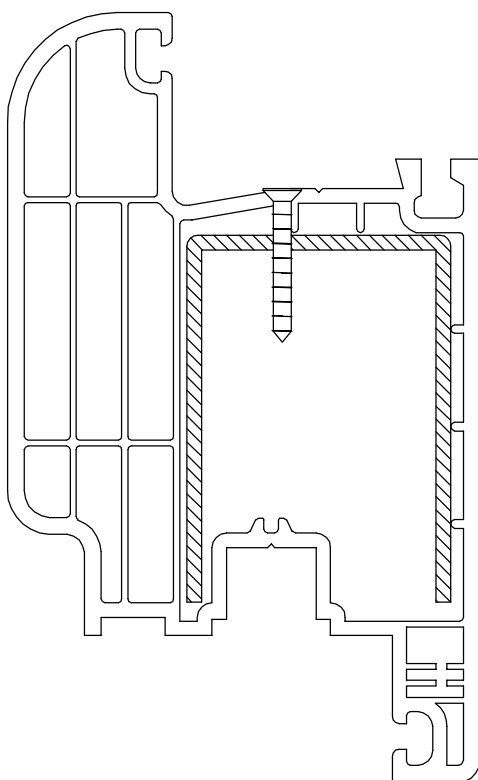
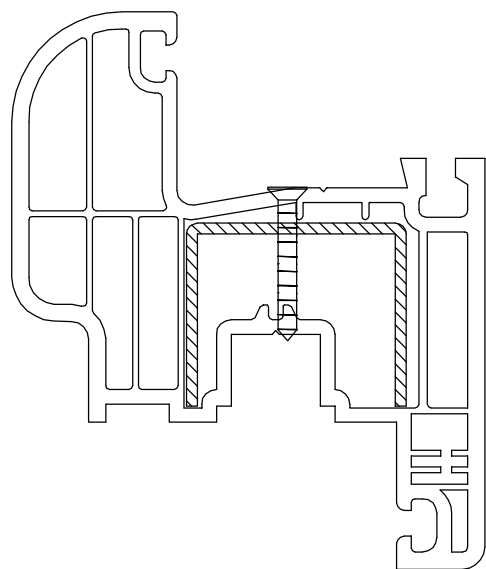
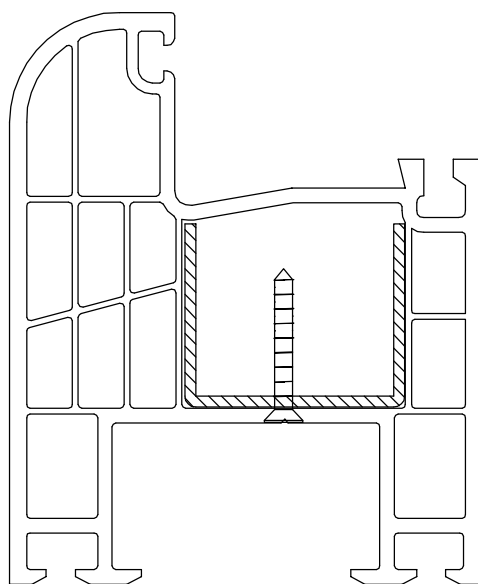
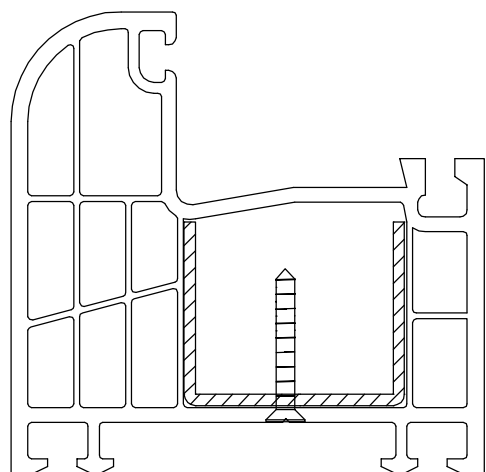
# VEZA ČELIČNOG OJAČANJA SA PROFILIMA SISTEM 300



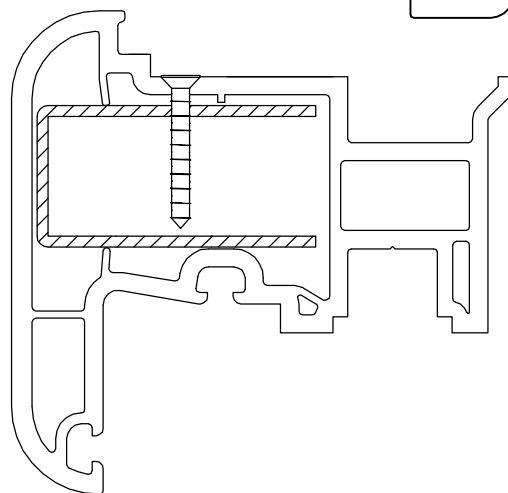
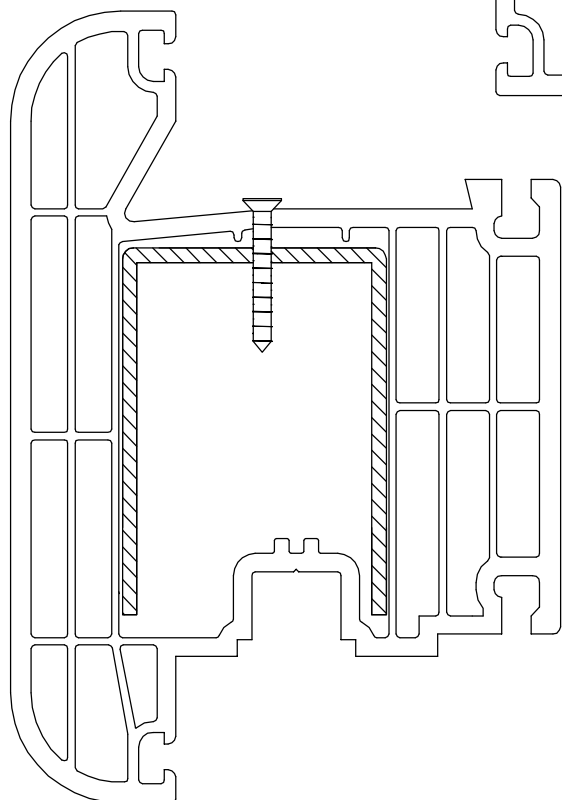
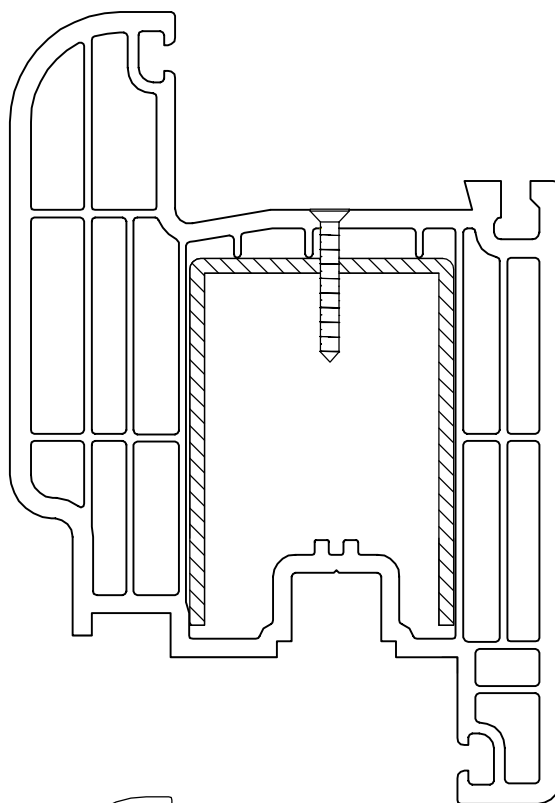
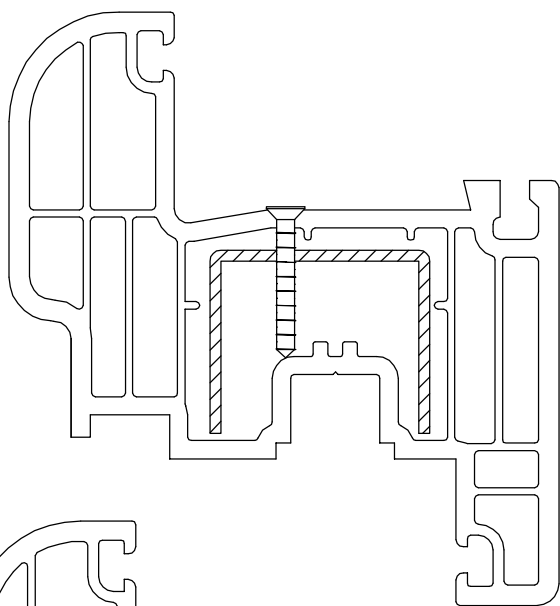
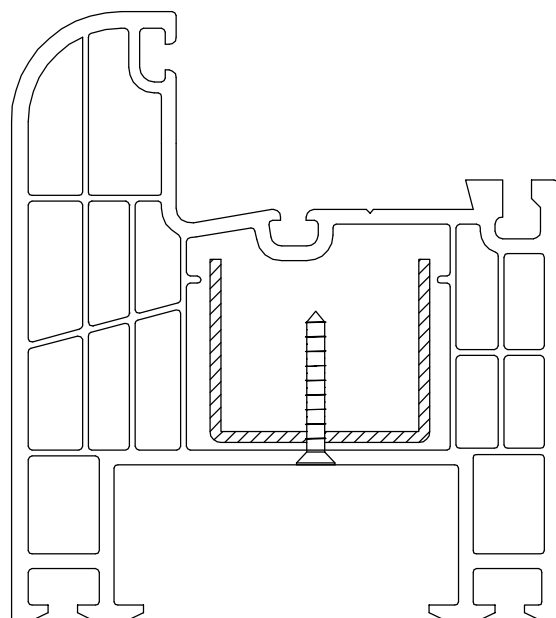
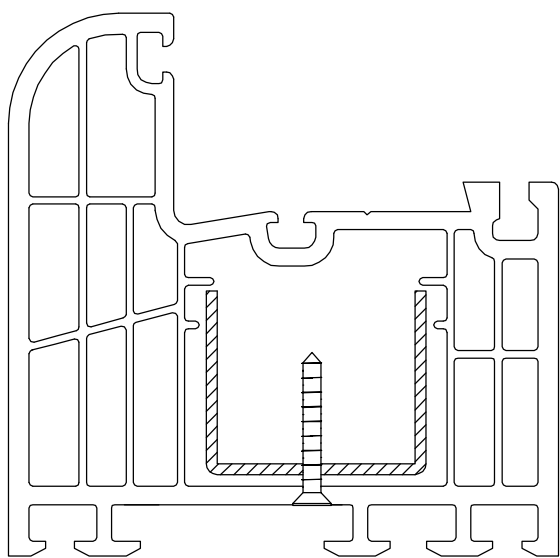
# VEZA ČELIČNOG OJAČANJA SA PROFILIMA SISTEM 400

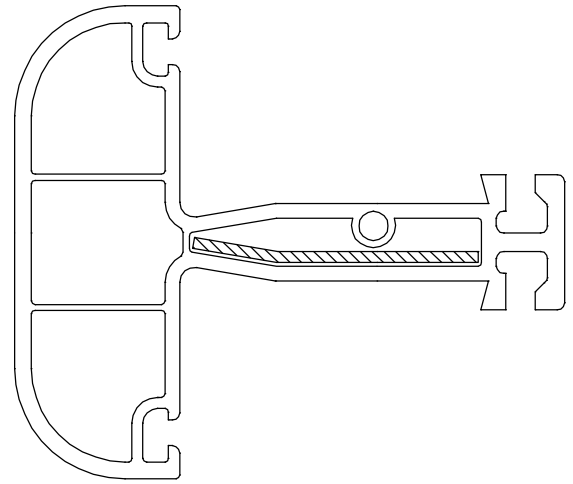
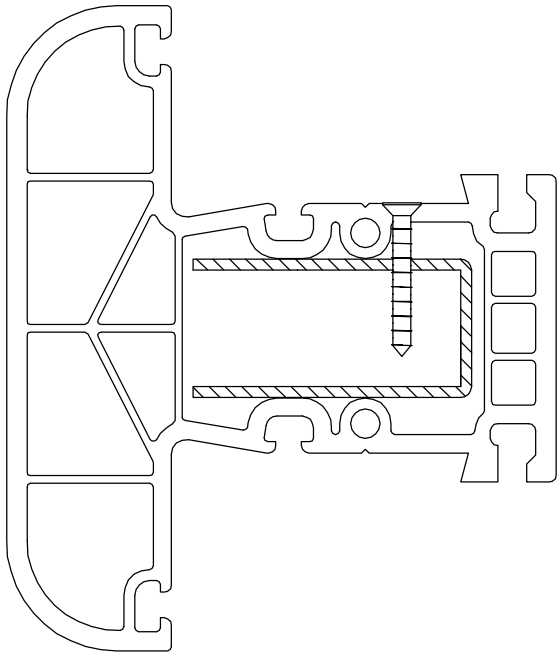


# VEZA ČELIČNOG OJAČANJA SA PROFILIMA SISTEM 500

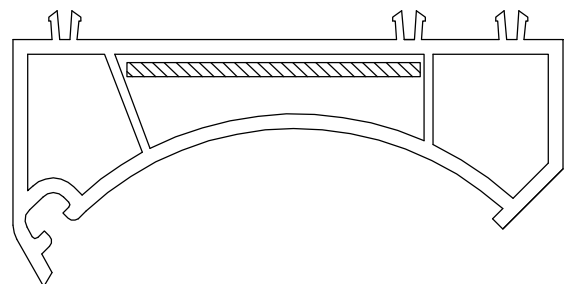
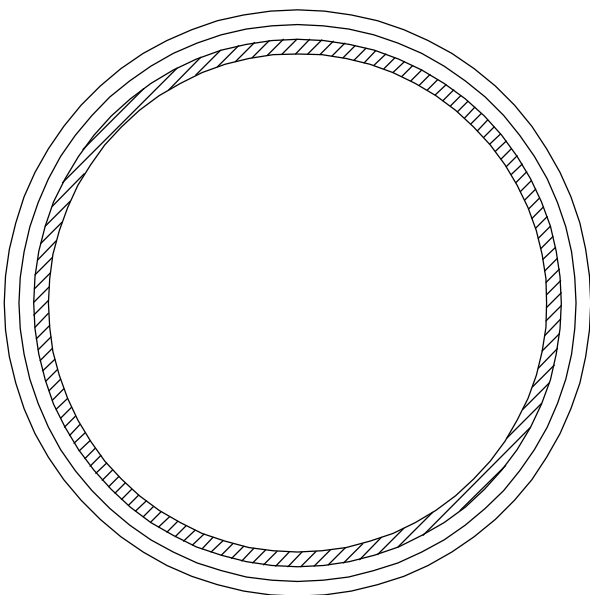
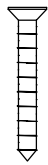
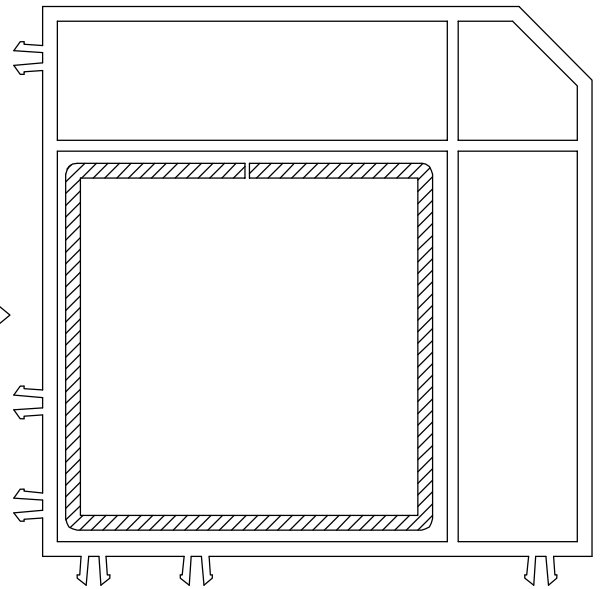
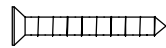
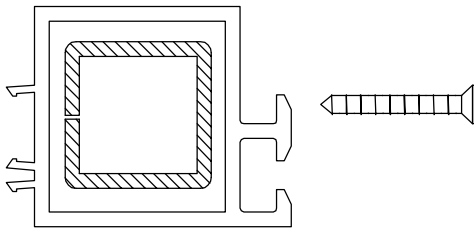


# VEZA ČELIČNOG OJAČANJA SA PROFILIMA SISTEM 600

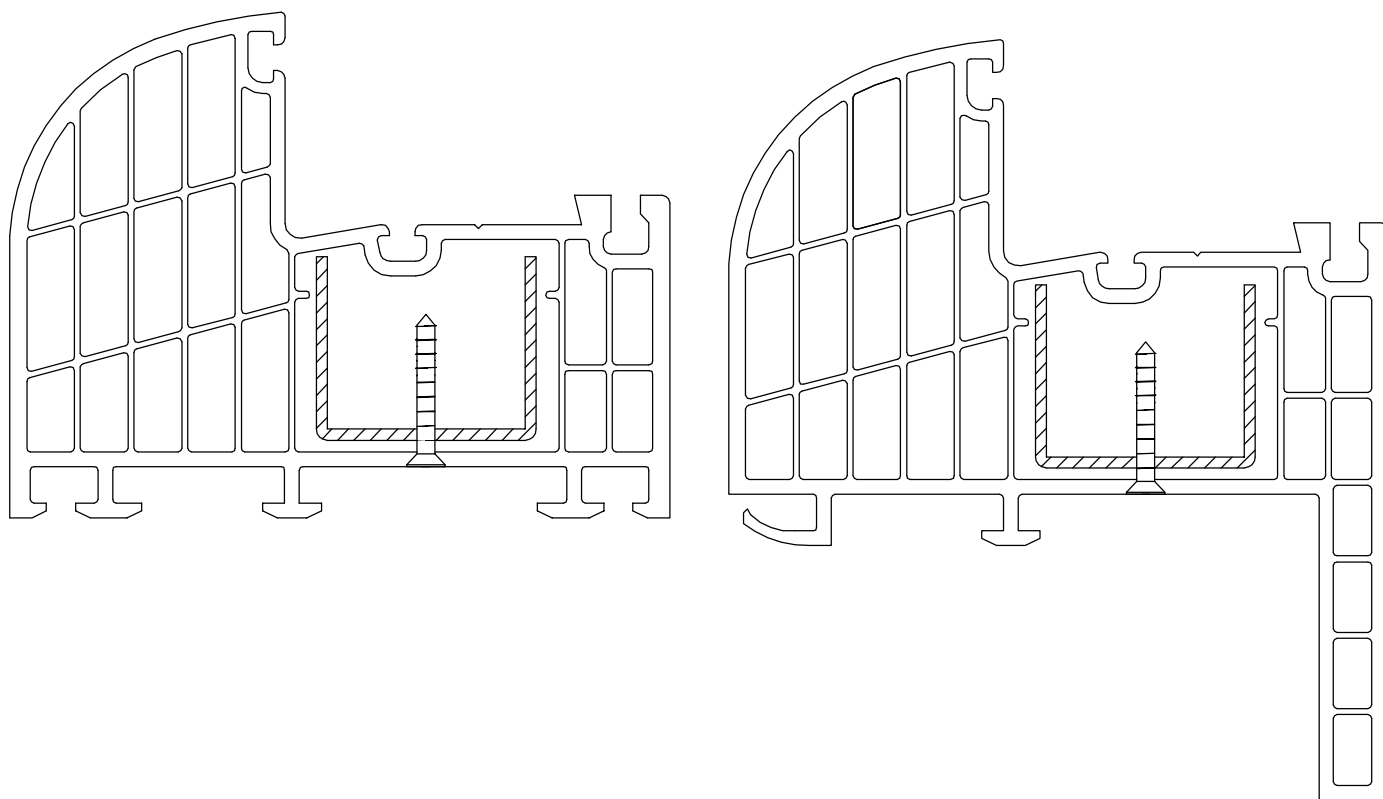




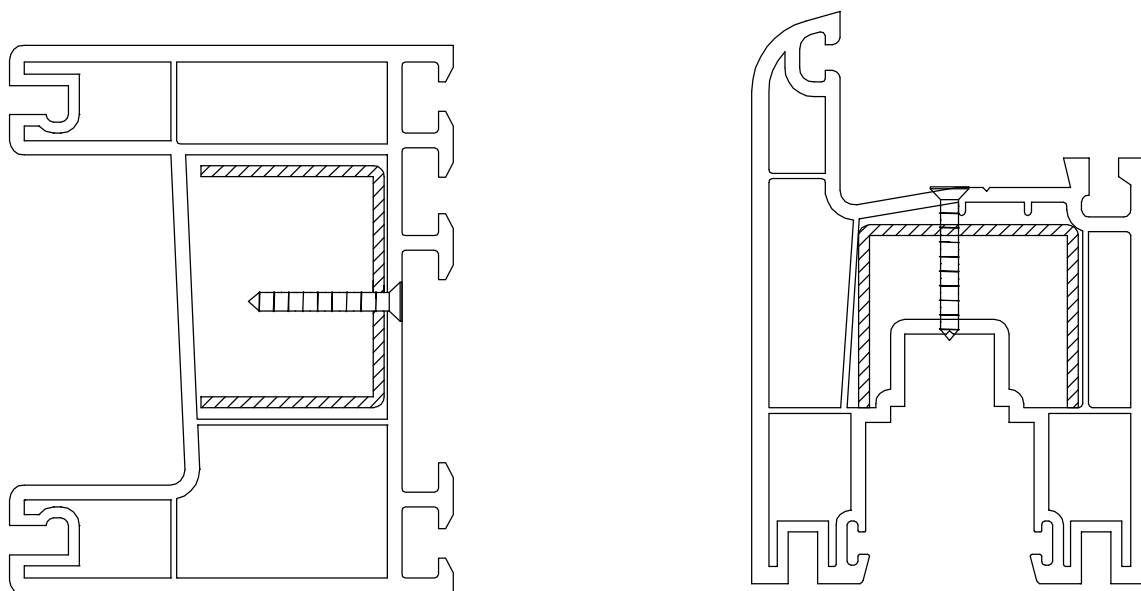
## VEZA ČELIČNOG OJAČANJA SA POMOĆNIM PROFILIMA



# VEZA ČELIČNOG OJAČANJA SA PROFILIMA SISTEM 800



# VEZA ČELIČNOG OJAČANJA SA PROFILIMA SISTEM 800 - ŠIBER





## 7. ZAPTIVAČI

Zaptivači kao i prozori se izrađuju od različitih materijala. Ukoliko nisu odgovarajućeg kvaliteta gube vremenom funkcionalnost kao i izolacione karakteristike prozora.

Greške se javljaju kada se štedi na zaptivačima. Na račun male uštede može se napraviti velika šteta, a posledice oseća isključivo krajnji kupac. Zaptivači za staklo kao i spoljni zaptivači na ramu se prave od EPDM. To je materijal koji je veoma otporan na vremenske uticaje, posebno uticaj ultravioletnog zračenja iz sunčevog spektra. Lajsna za staklo se pravi koekstrudiranjem, prevlačenjem mekog PVC-a po osnovnom materijalu tvrdom PVC-u. Treba naglasiti da ovaj zaptivač nije izložen vremenskom uticaju te njegova otpornost na ultravioletno zračenje nema značajnu vrednost. Profili ROLOPLAST na svojim ramovima imaju tri zaptivača, veoma je interesantan srednji zaptivač kojim je praktično onemogućen prodor vode usled eventualnih vremenskih nepogoda.

Kod zaptivača koji se koriste kod PVC prozora osim otpornosti na vremenske uticaje, dimenzija, posebnu pažnju treba obratiti na tzv. "lepljenje" – prijanjanje zaptivača na prozorski profil kako bi se popunile eventualne "mikroskopske" pukotine. Treba naglasiti da je neodgovarajuće zaptivanje glavni uzrok prekomernih toplotnih gubitaka i dobitaka, kao i značajno smanjenje zvučne izolacione moći.

Zaptivačima na krilu, ramu, staklu kao i vezom ram-krilo treba obezbediti odgovarajući broj izmena vazduha kroz zatvoren prozor.

Potrebno je osigurati odgovarajuću količinu vazduha kroz zatvoren prozor. Broj zaptivača je u funkciji namene prostora. Kod stambenih zgrada on treba da bude manji dok je kod školskih objekata veći. Na manjem prostoru boravi veći broj ljudi te je potreban i veći broj izmena vazduha  $n$  [i/h].

Broj izmena vazduha se definiše na sledeći način:

$$n = \frac{V'}{V} \text{ [i/h]} \quad V' - \text{protok vazduha kroz prostor [m}^3\text{/h], } V - \text{zapremina prostora.}$$

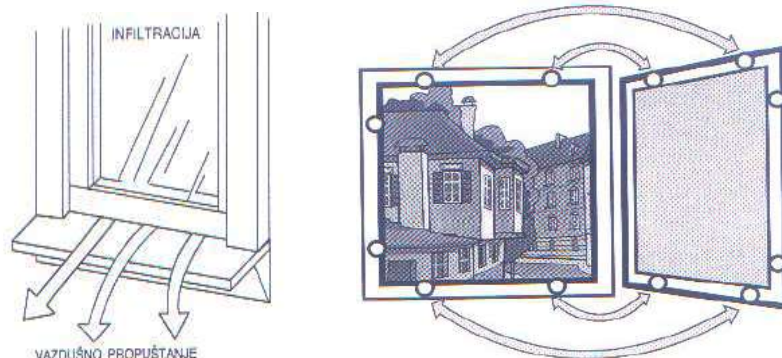
Po DIN 4107 dozvoljeni broj izmena vazduha je od 0,5 – 1 [i/h] dok naš standard JUS U. J5 100 zahteva broj izmena manji od dve  $n < 2$  i/h.

Glavni uzrok smanjenja zvučne izolacione moći kao i povećanih toplotnih gubitaka u našoj zemlji je neodgovarajuća zaptivenost prozora.

Po definiciji postoje dve vrste buke: strukturna i vazдушna. Strukturna buka se rešava odgovarajućim materijalima (teškim materijalima). Ono što zadovoljava toplotnu izolovanost (lagani materijali sa vazдушnim porama) ne zadovoljava zvučnu izolovanost.

Najveći je problem ako se ne ostvari odgovarajuće zaptivanje, povećava se prolaz vazduha i smanjuje zvučna izolaciona moć.

Prozor je utoliko bolji, ukoliko je veća zvučna izolaciona moć prozora.



ZAPTIVAČ STAKLA

P.052

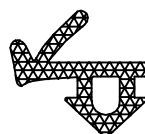
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ZAPTIVAČ RAM-KRILO

P.051

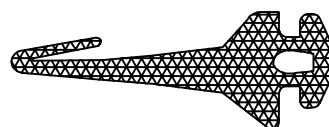
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ZAPTIVAČ RAMA

P.050

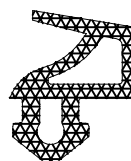
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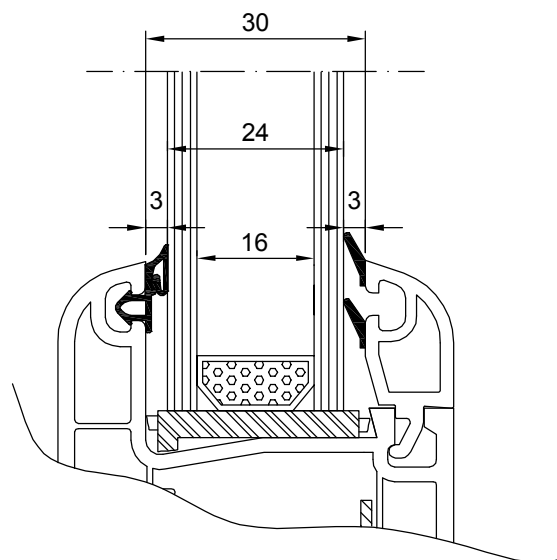
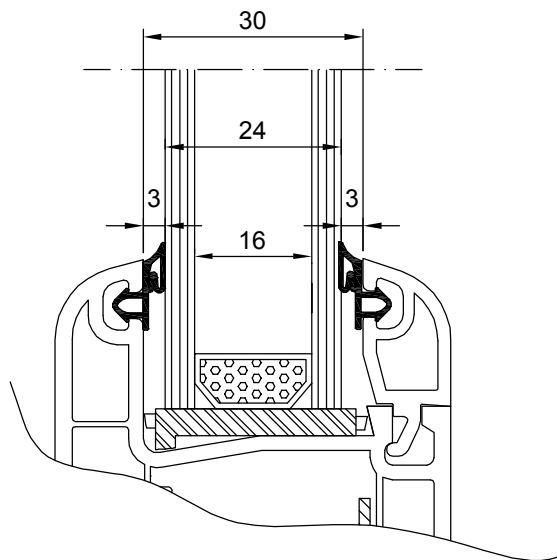
ZAPTIVAČ RAM-KRILO-STAKLO

P.060

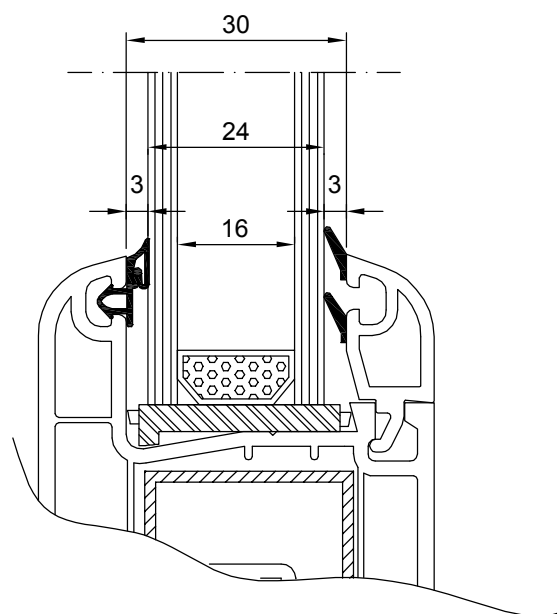
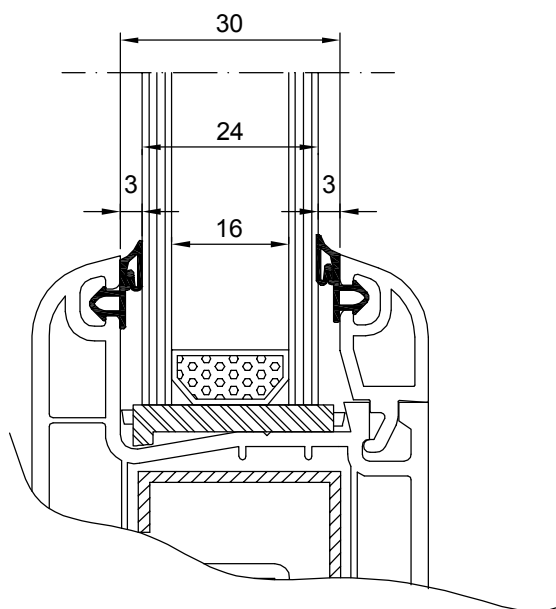
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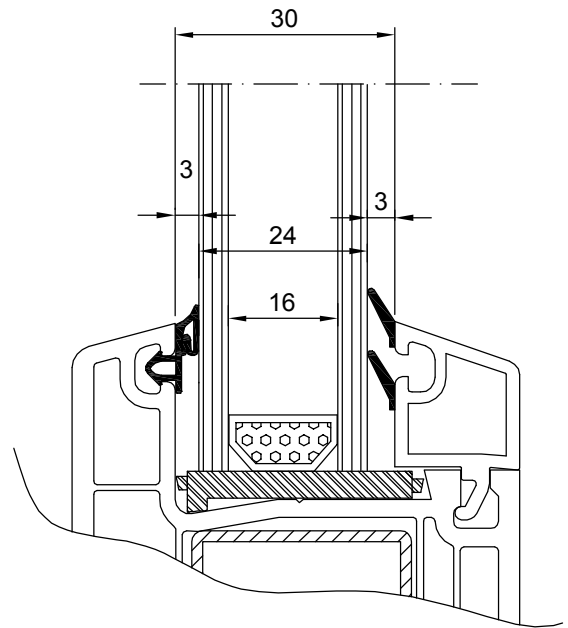
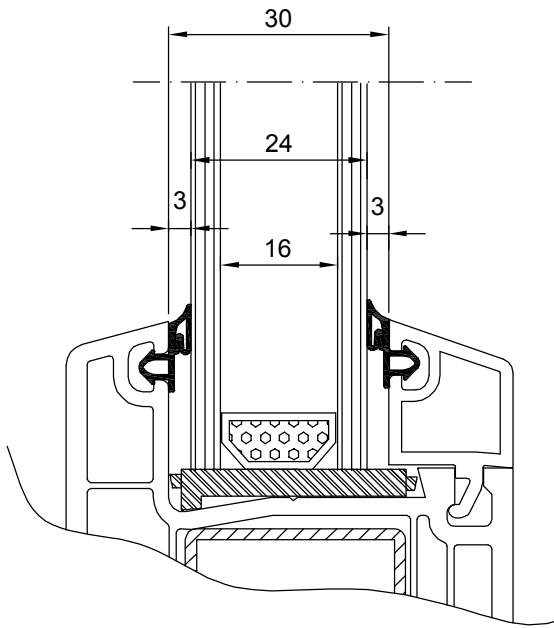
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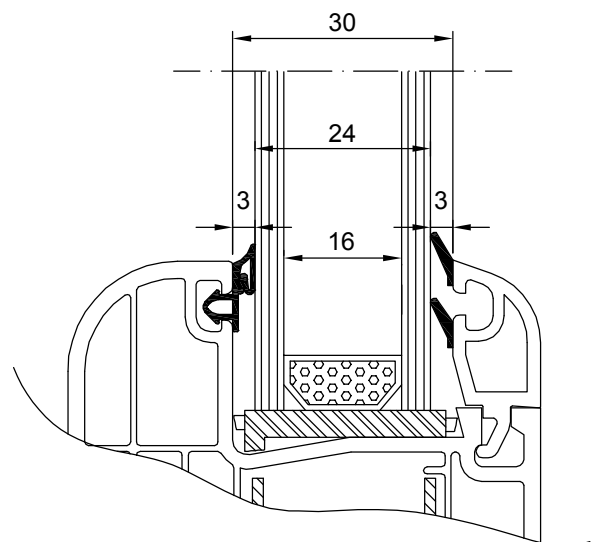
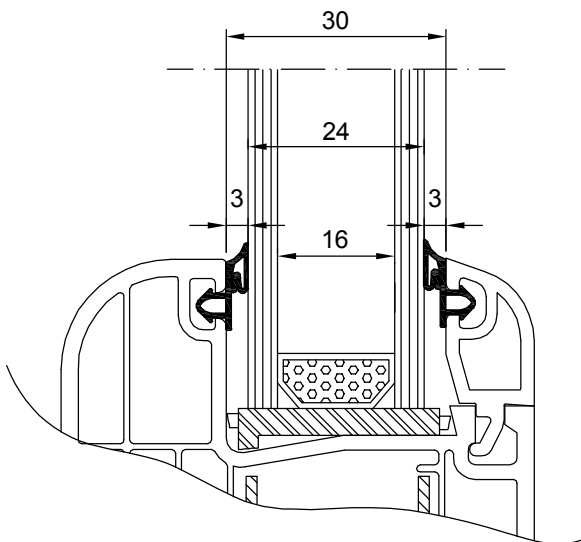
# STAKLO SISTEM 800 - ŠIBER



# STAKLO SISTEM 400

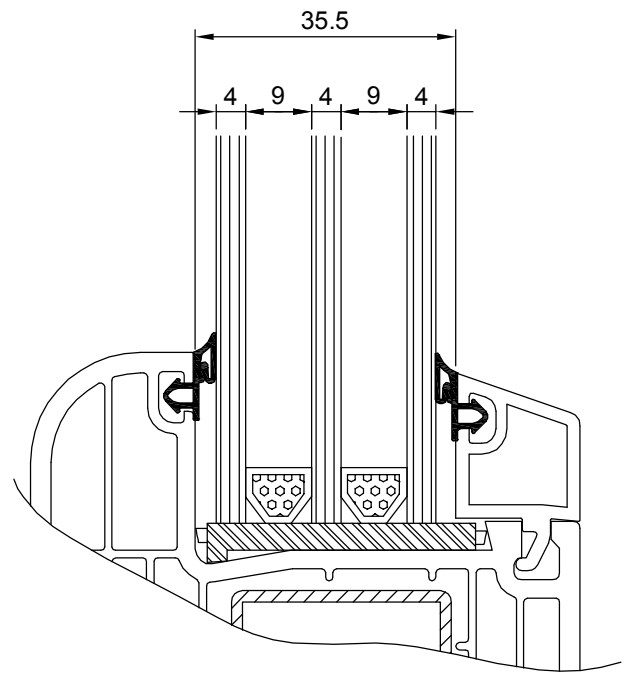
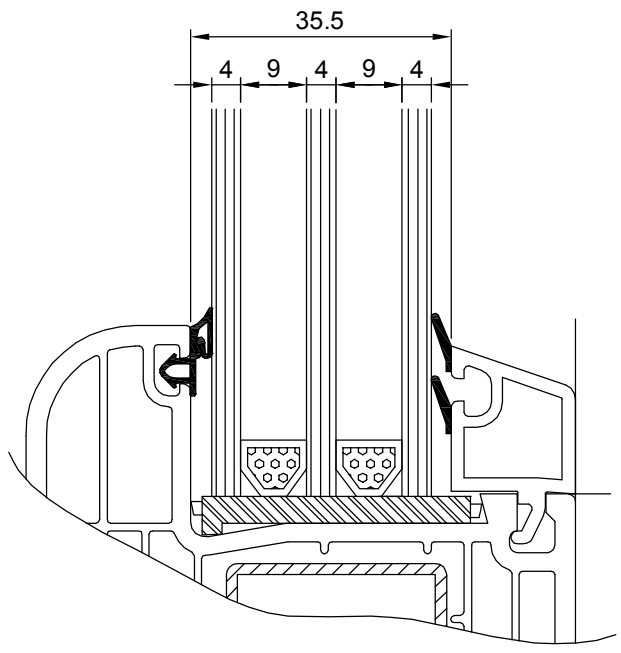
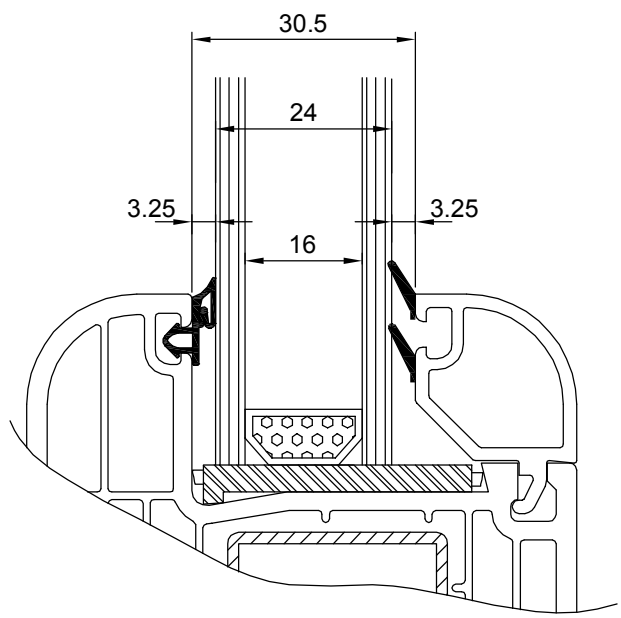


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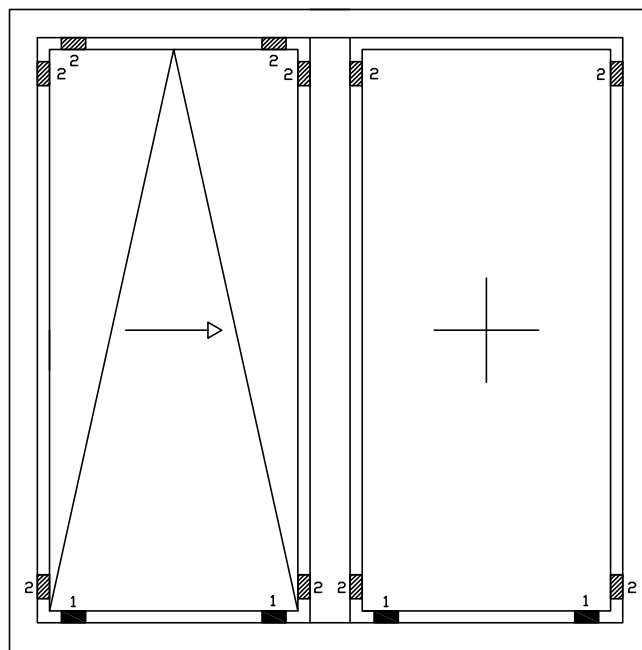
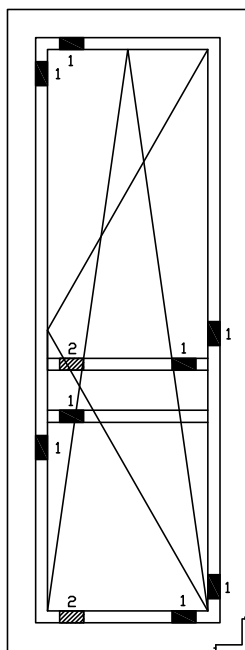
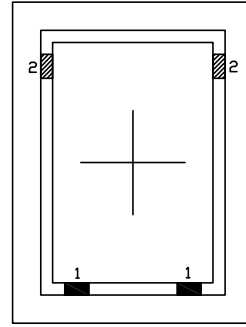
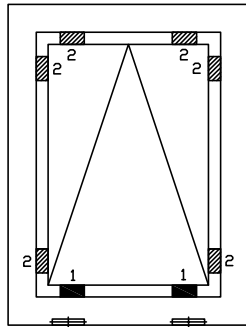
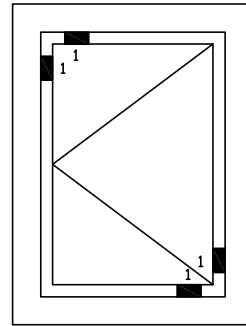
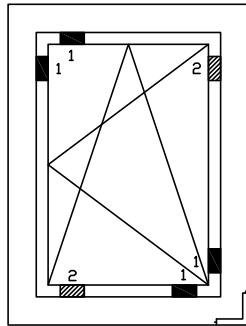


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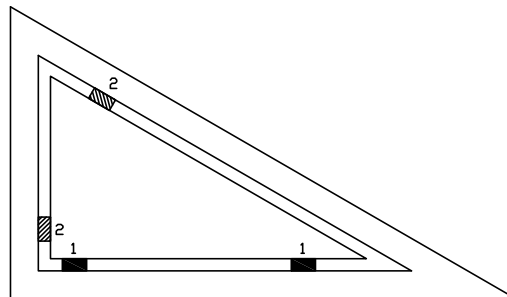
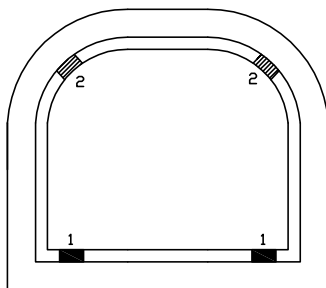
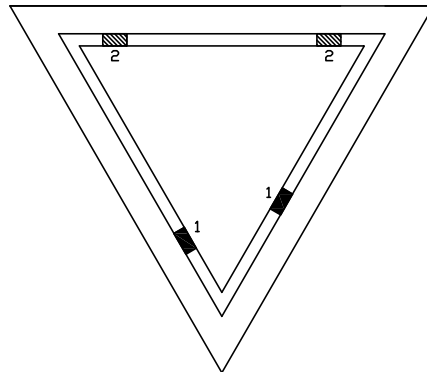
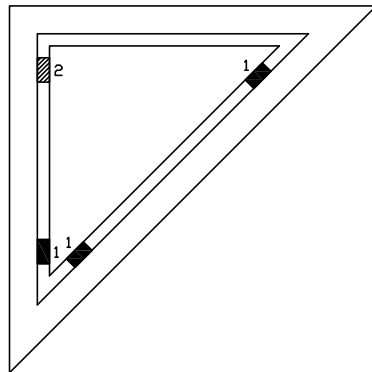
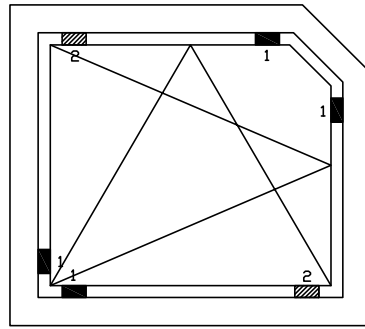
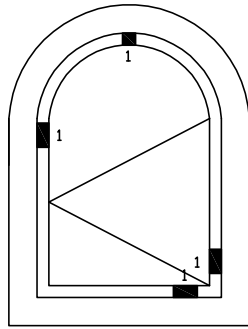
## SISTEM 600 | SISTEM 800



# 8. NAČINI KAJLOVANJA KOD ZASTAKLJIVANJA STOLARIJE



# NAČINI KAJLOVANJA KOD ZASTAKLJIVANJA STOLARIJE



## 9. NAČIN I POSTUPCI UGRADNJE PROZORA I VRATA

Prema načinu izvođenja ugradnje fasadnih prozora i vrata razlikujemo dva postupka:

- mokri postupak ugradnje
- suvi postupak ugradnje

### Mokri postupak ugradnje

Učvršćivanje prozora se obavlja čeličnim ankerima ili vijcima. Ivice zida za koje se učvršćuju prozori i vrata nisu obrađene. Pravilno pripremljen otvor podrazumeva otvor veći od proizvodne mere za 2 cm po širini i visini.

Ram se učvršćuje klinovima (kajlovima) sa svih strana da bi se dobila horizontalnost i vertikalnost prozora.

Nakon spajanja rama i zida čeličnim ankerima ili vijcima, prostor između zida i rama popunjava se poliuretanskom penom. Posle očvršćivanja poliuretanske pene višak se odseče. Posle toga se prostor između rama i zida sa vanjske strane popunjava silikonom radi kvalitetnijeg zaptivanja. Pre malterisanja postaviti pokrivne šarke i zaštititi fasadne elemente najlonom ili kartonom. Nakon toga se vrši malterisanje tako da malter pokrije bar 1 cm rama.

Treba naglasiti da malter ne sme doći u kontakt sa šarkama.

Nakon malterisanja skinuti zaštitnu foliju sa profila.

### Suvi postupak ugradnje

Ovaj postupak ugradnje se primenjuje kada je objekat omalterisan i kada je urađena spoljna fasada.

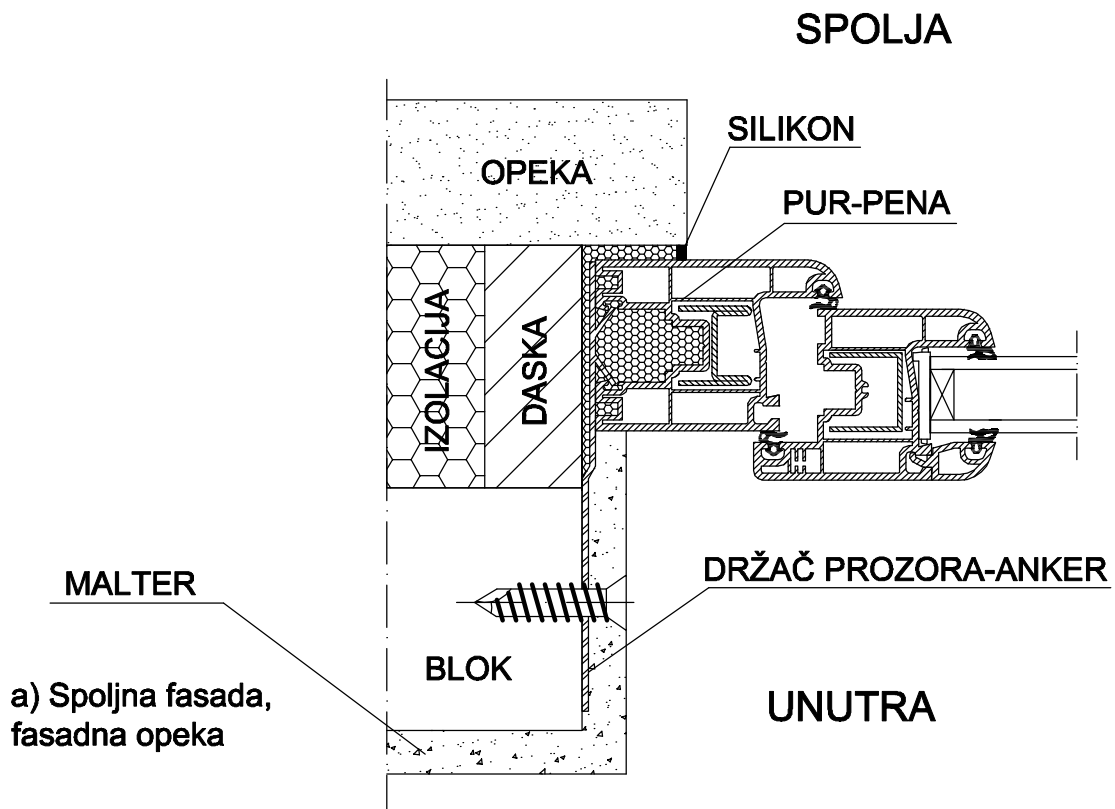
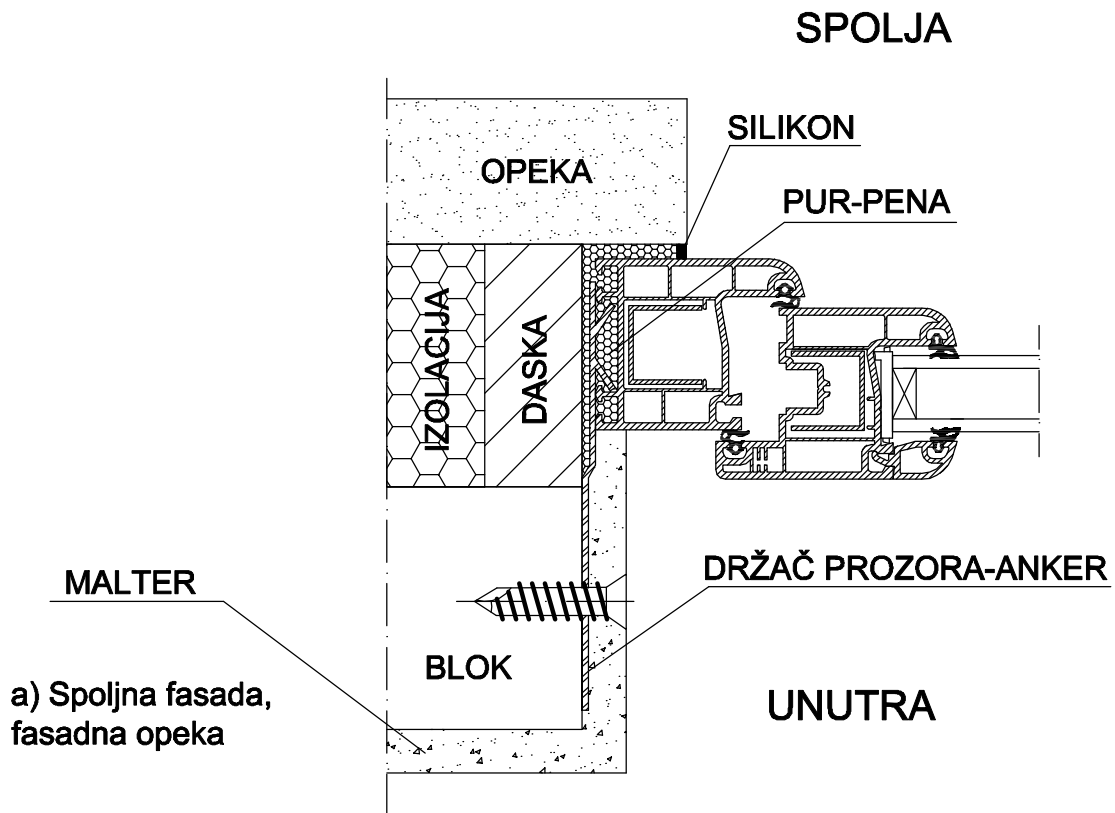
Otvor u koji se ugrađuje prozor treba biti veći od prozora za 1 cm po visini i širini. Prostor između zida i rama popunjava se poliuretanskom penom. Kada se odseče višak pene, prostor između zida i okvira se dodatno sa spoljne i unutrašnje strane popunjava silikonom. Nakon tog postupka obavezno je postaviti pokrivne lajsne.

Ugradnja prozora u nekoliko koraka:

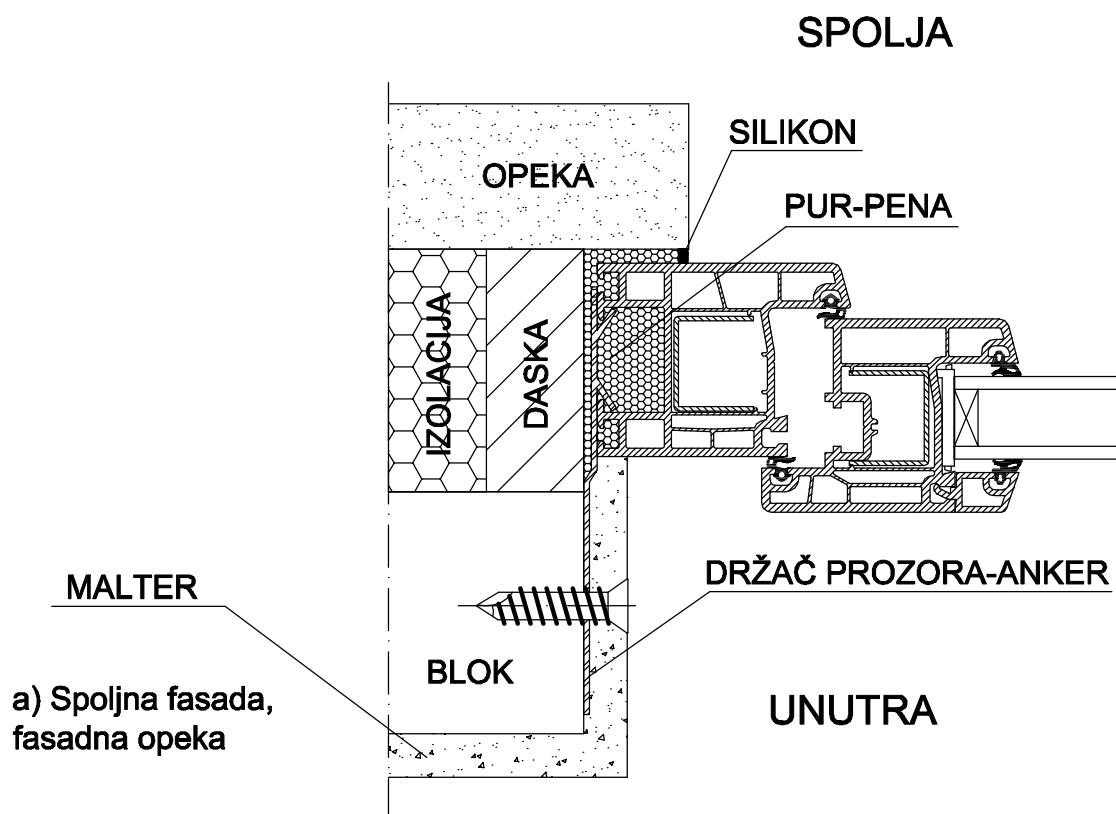
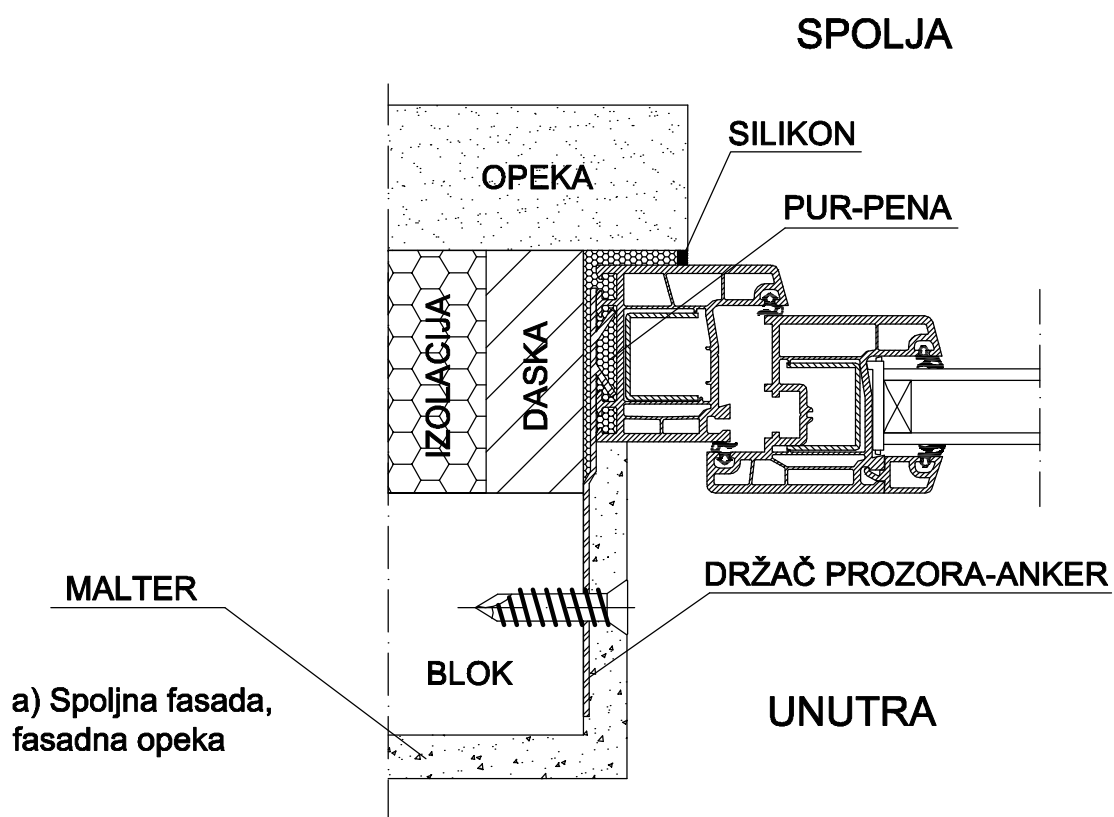
- Demontaža počinje odvajanjem okapnice pomoću čekića i dleta
- Spojevi sa zidom se olabave čekićem i posle toga se odstrane vijci. Ukoliko se radi o zarđalim vijcima moguće je samo izbijanje spojeva. Posle toga se ram jednostavno vadi.
- Prozor se pomoću klinova horizontalno i vertikalno poravna (pomoću libele)
- Rupe za pričvršćivanje se buše pomoću šablona
- Čelični vijci se postavljaju u izbušene rupe
- "Fuga" (prostor između otvora i rama) se nakon pričvršćivanja popuni poliuretanskom penom. Nanošenje pene mora biti bez naknadnog ekspaniranja jer bi usled razlike pritiska moglo doći do deformacije rama
- Oštrim nazubljenim nožem se nakon što je pena očvrsla odseče.



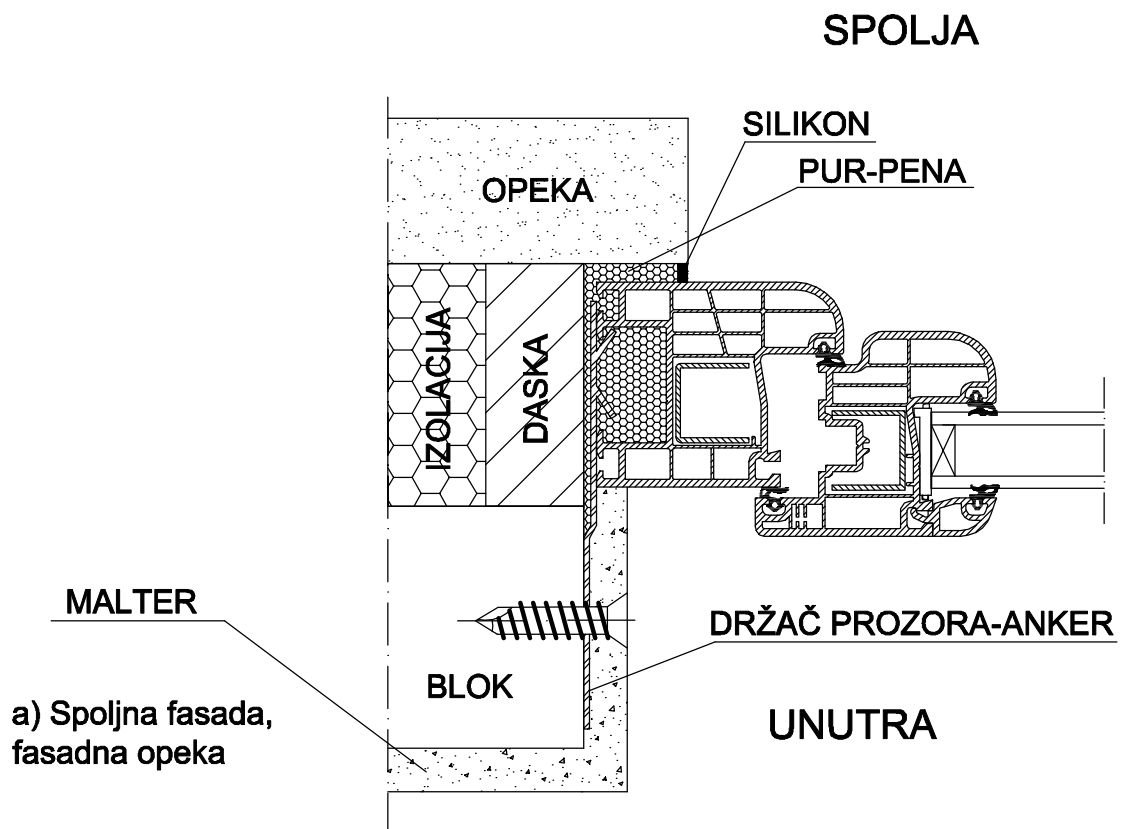
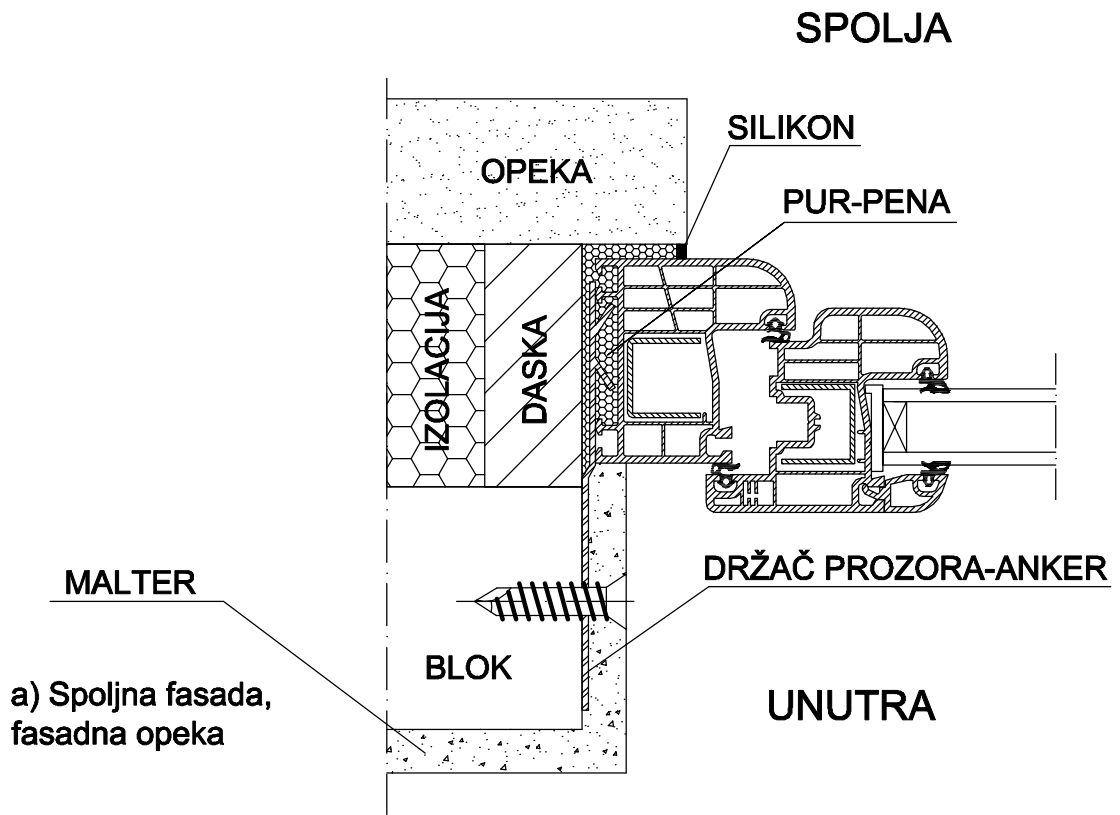
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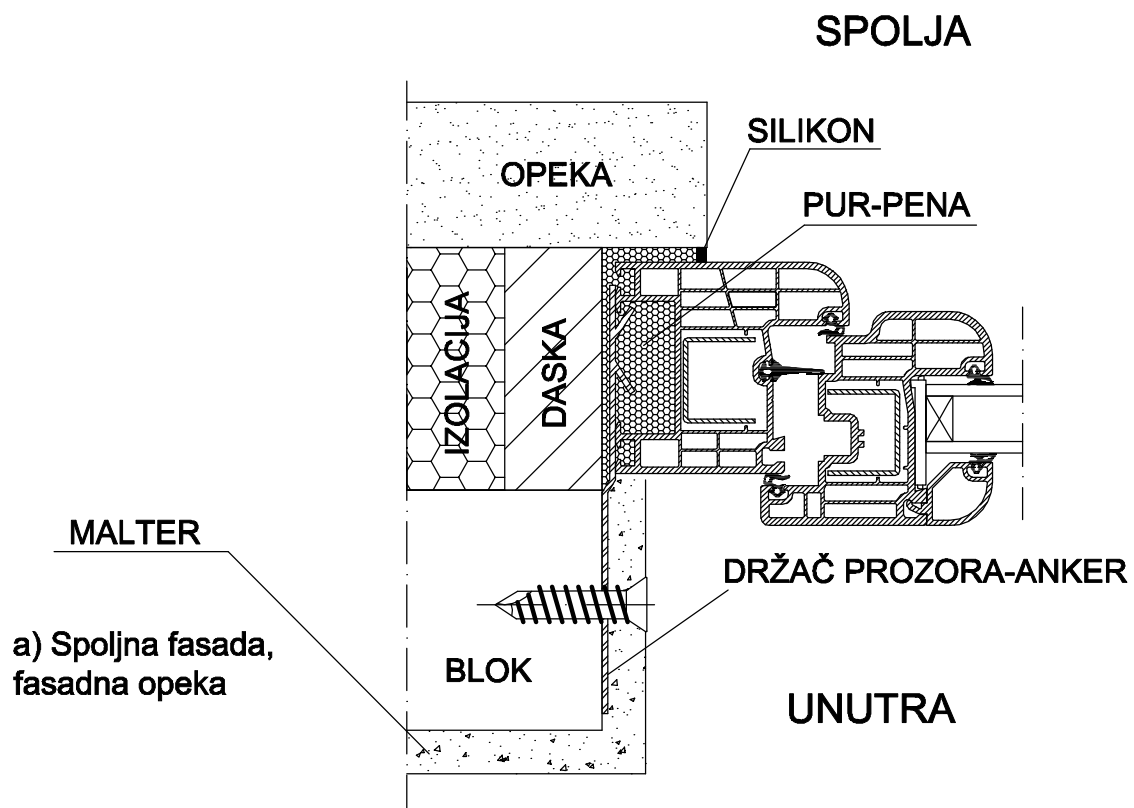
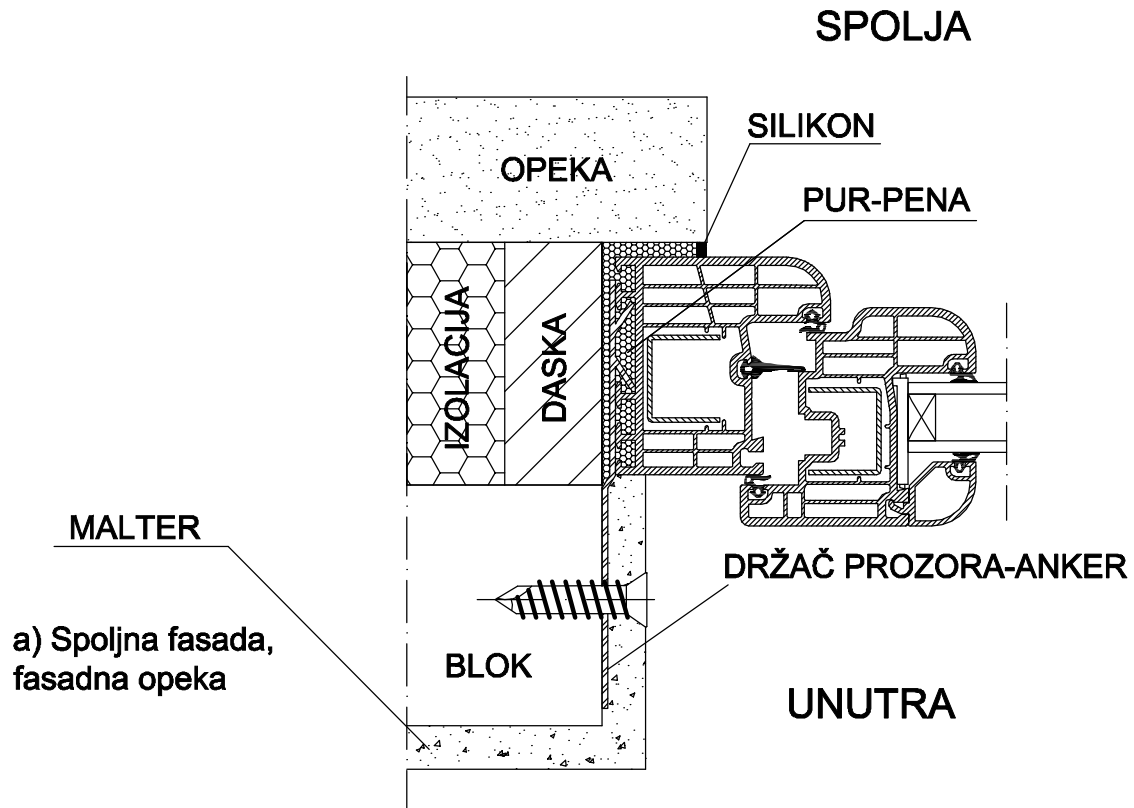
# MOKRI POSTUPAK MONTAŽE



# MOKRI POSTUPAK MONTAŽE

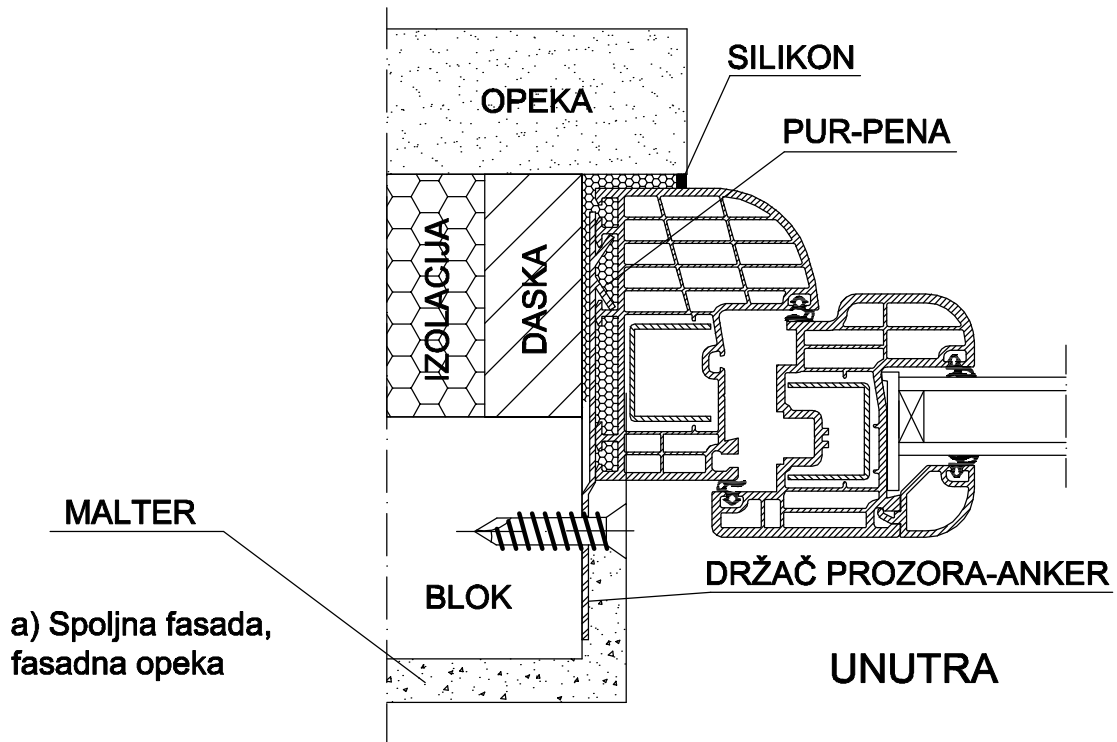


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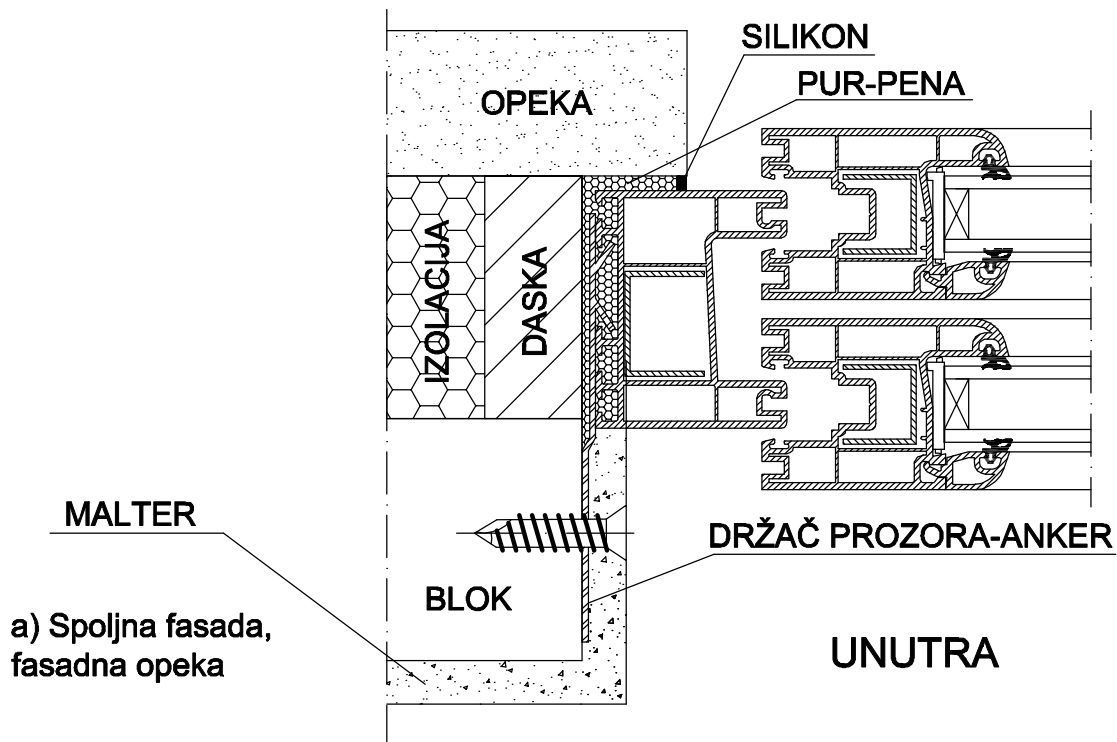


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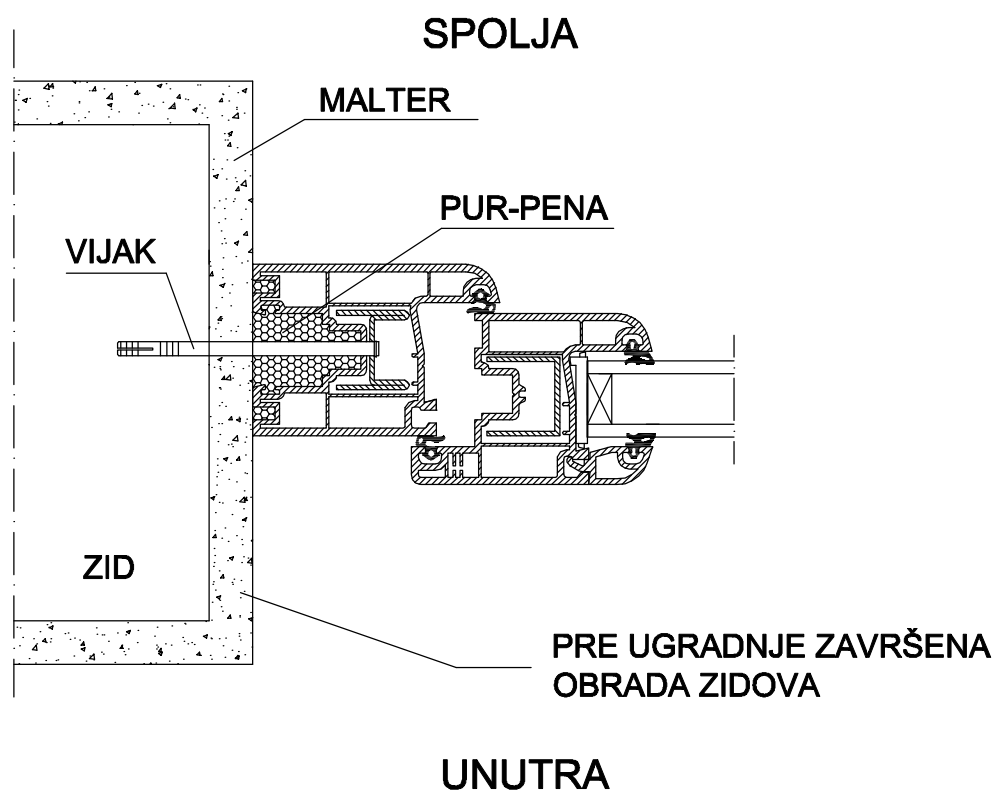
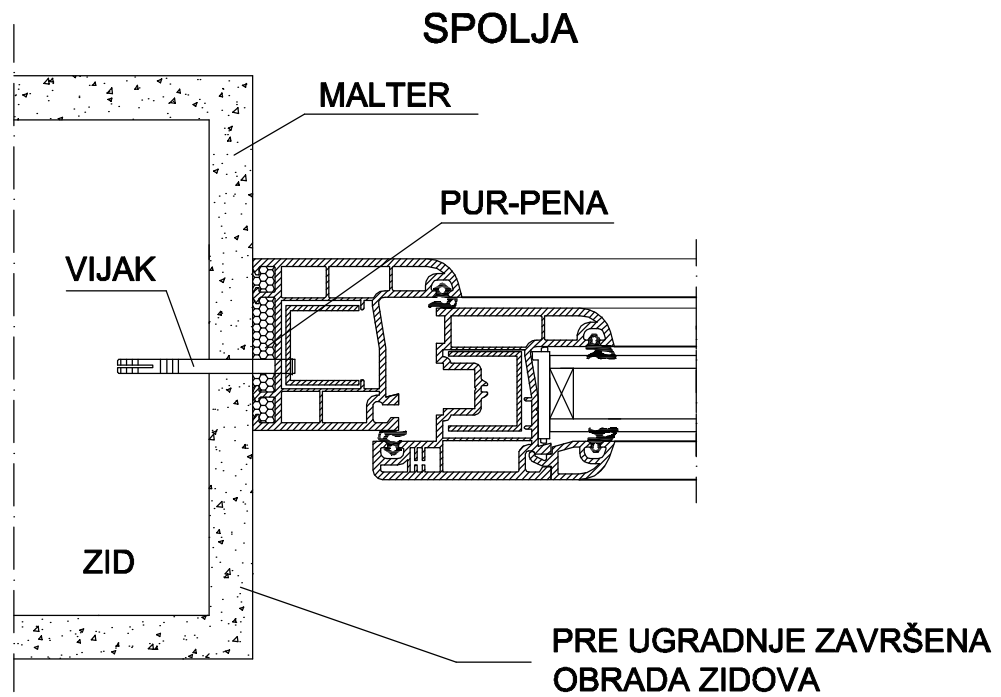
SPOLJA



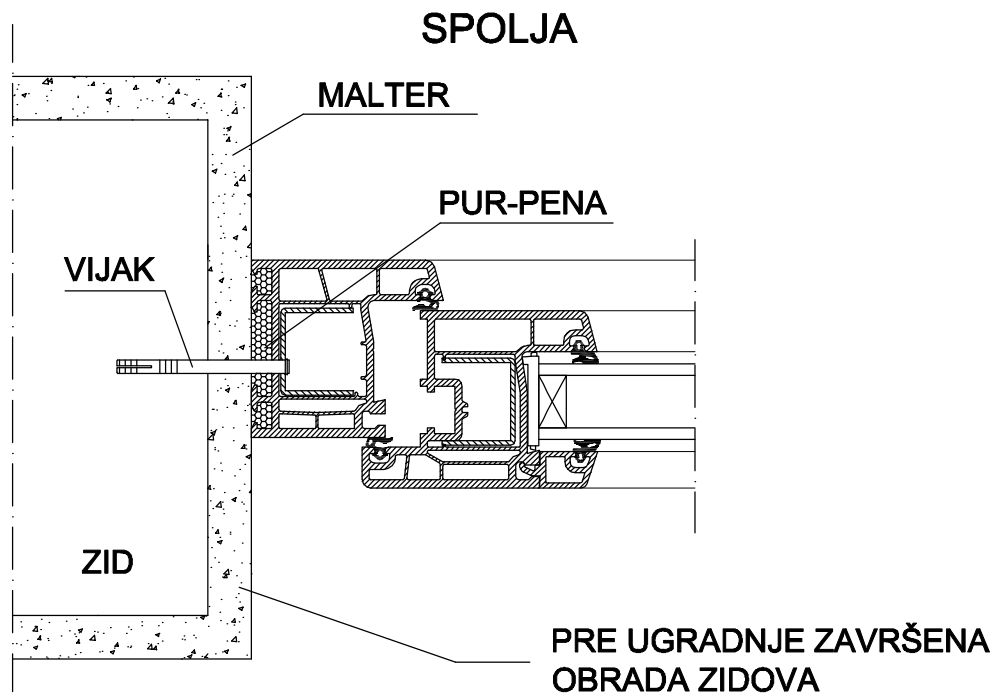
SPOLJA



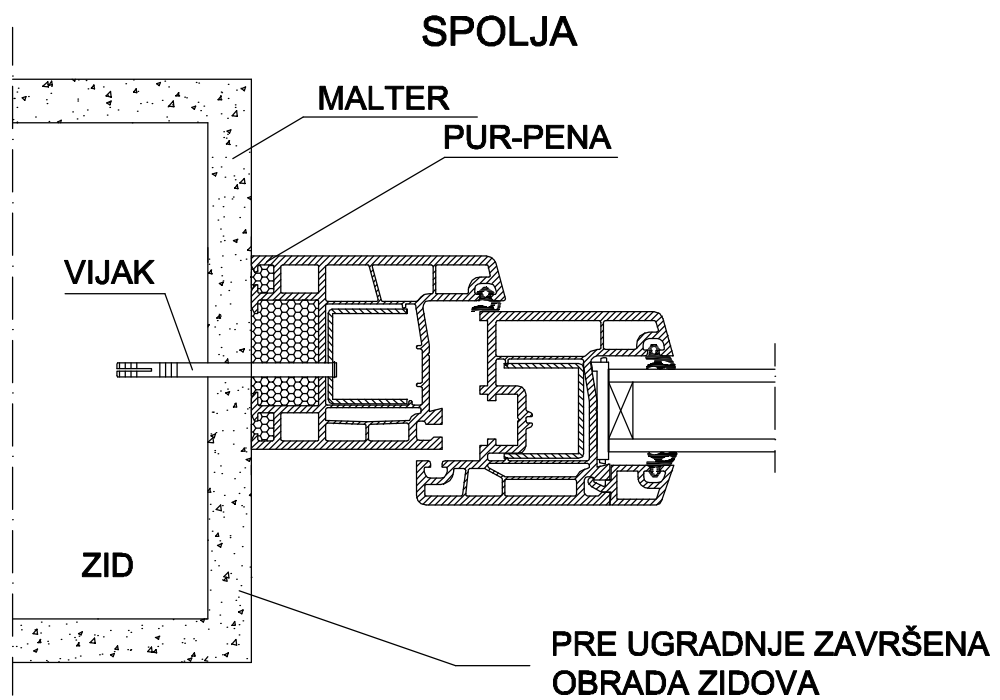
# SUVI POSTUPAK MONTAŽE



# SUVI POSTUPAK MONTAŽE

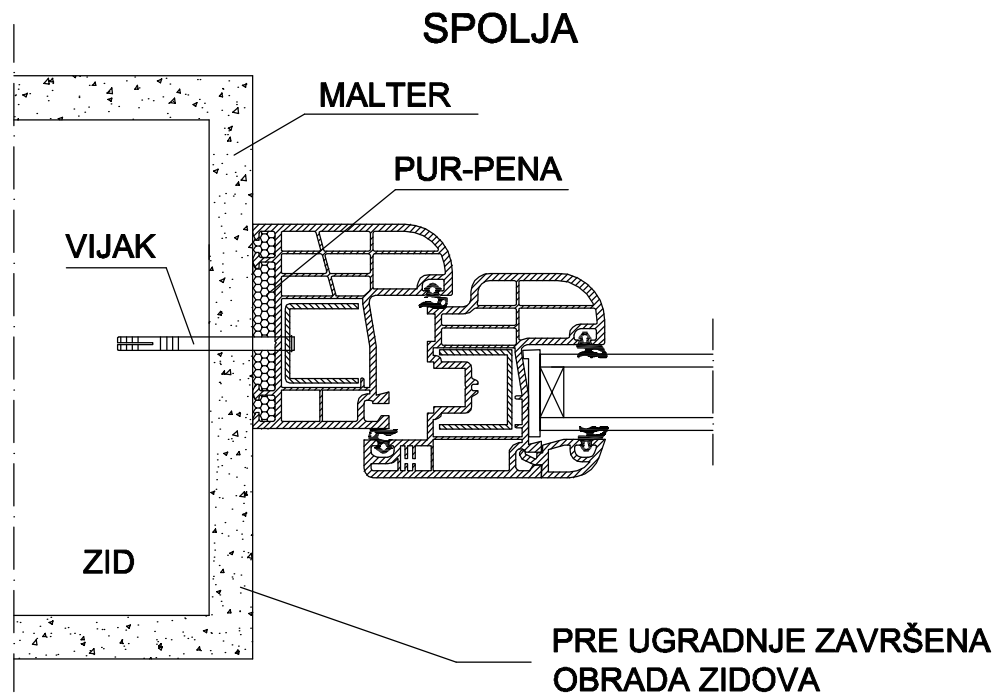


UNUTRA

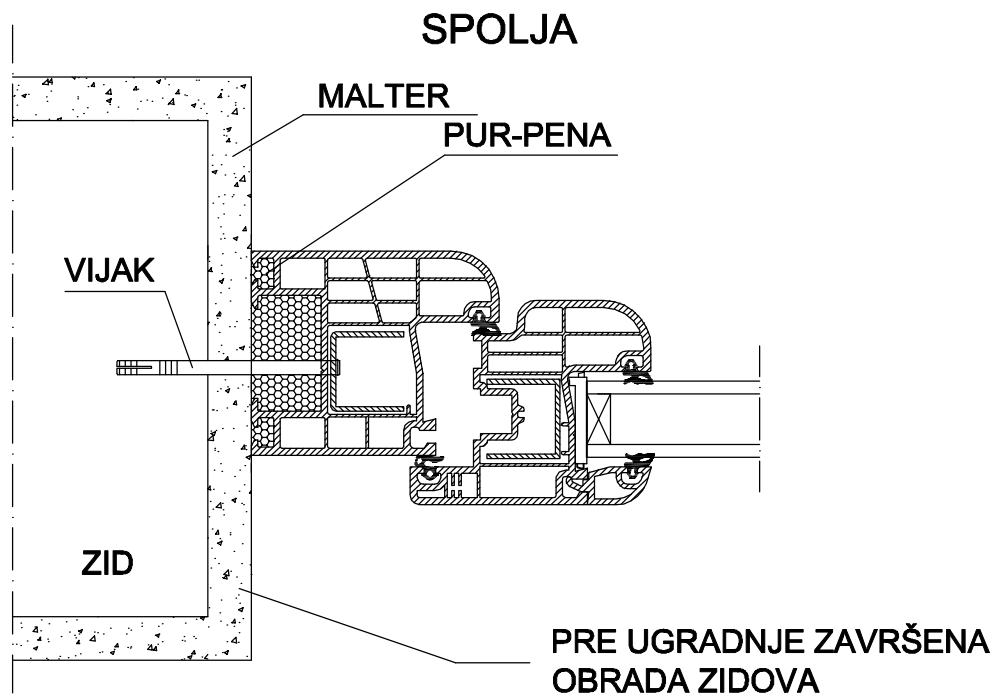


UNUTRA

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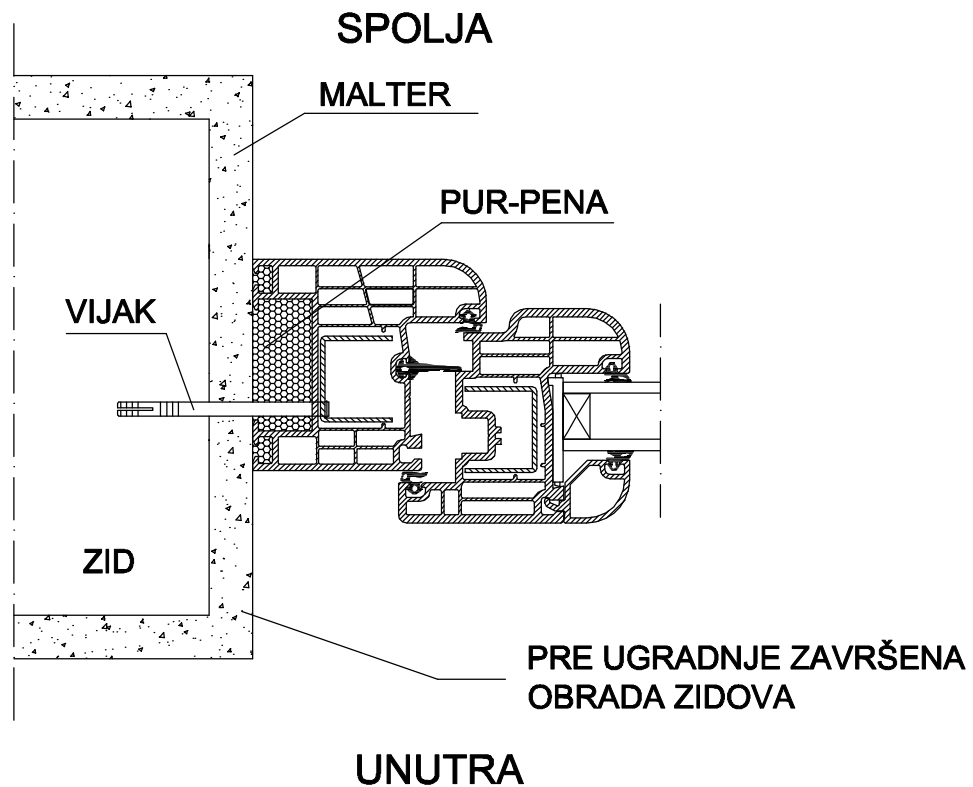
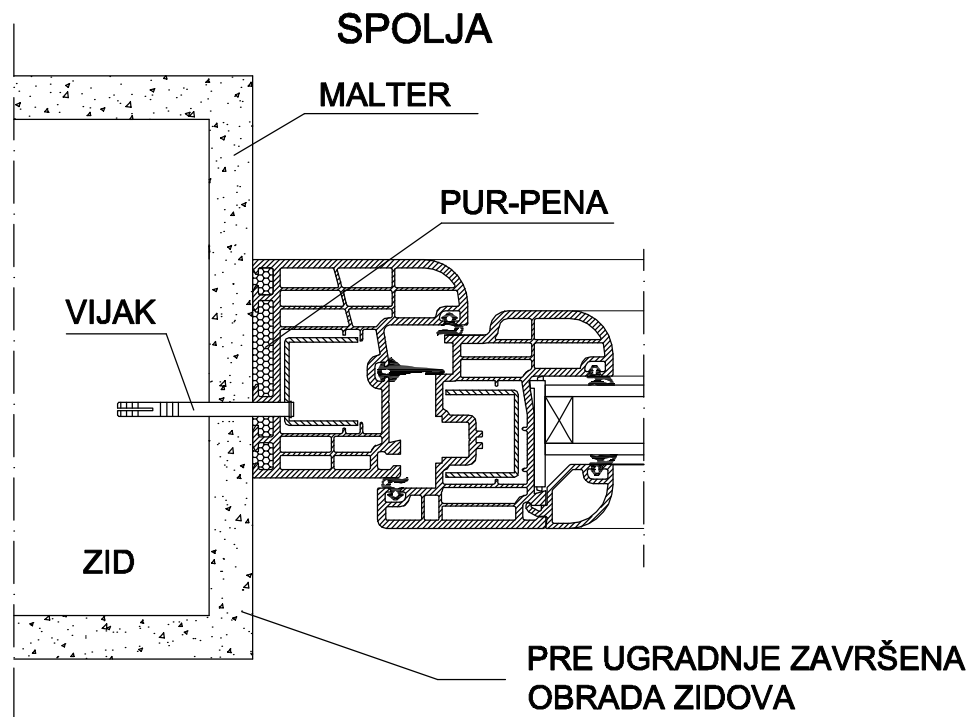
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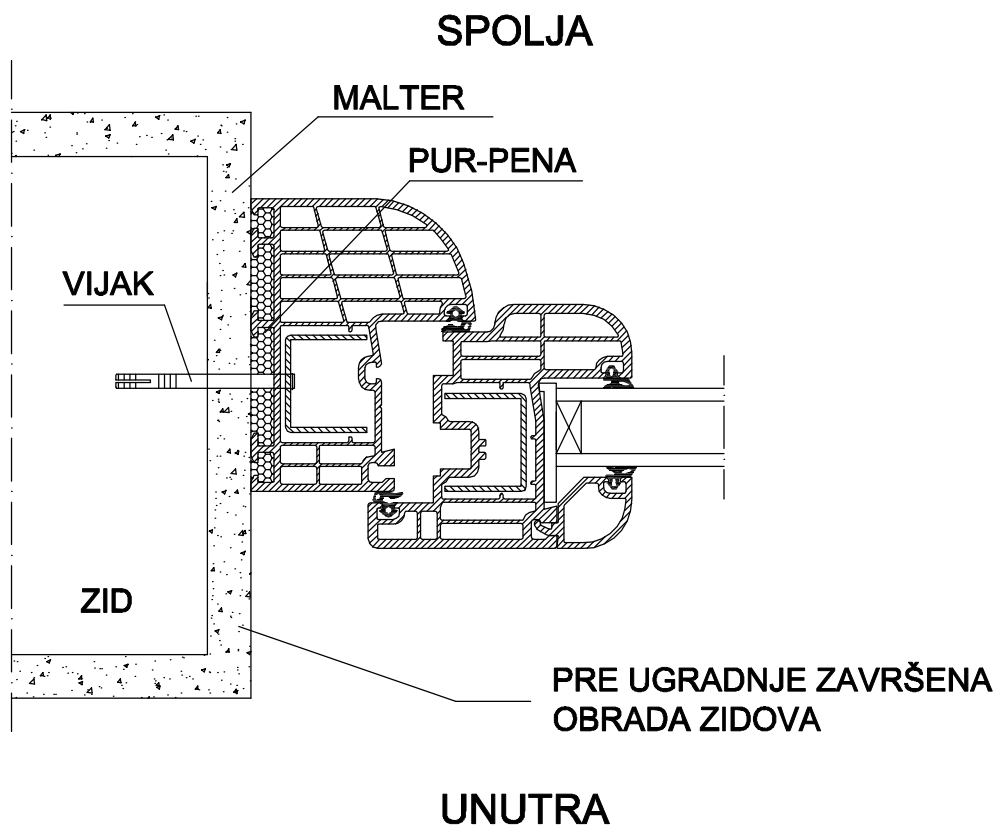
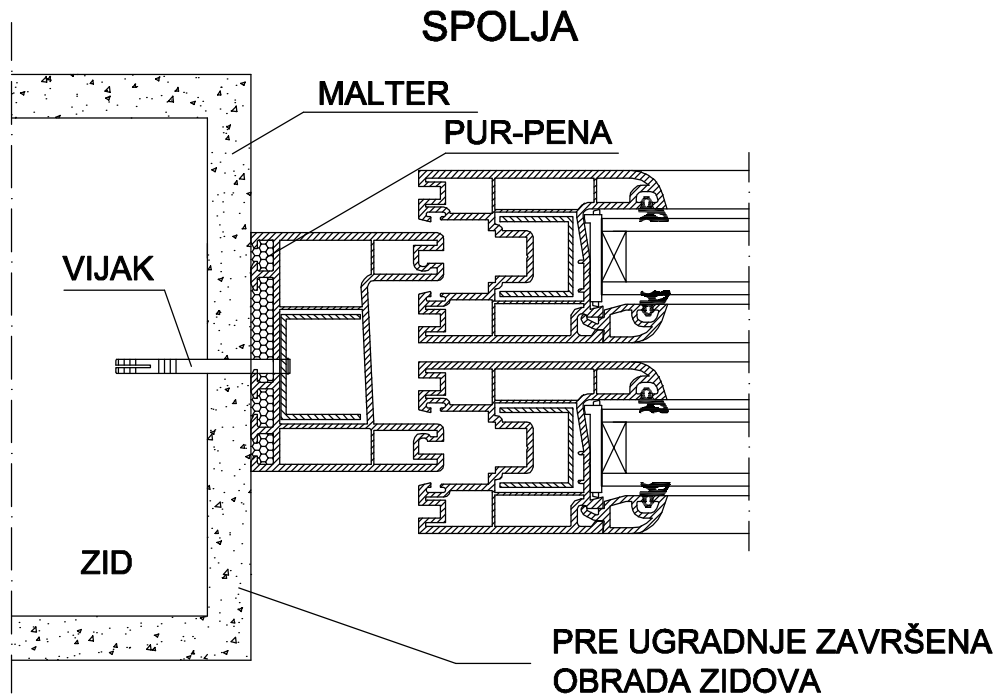
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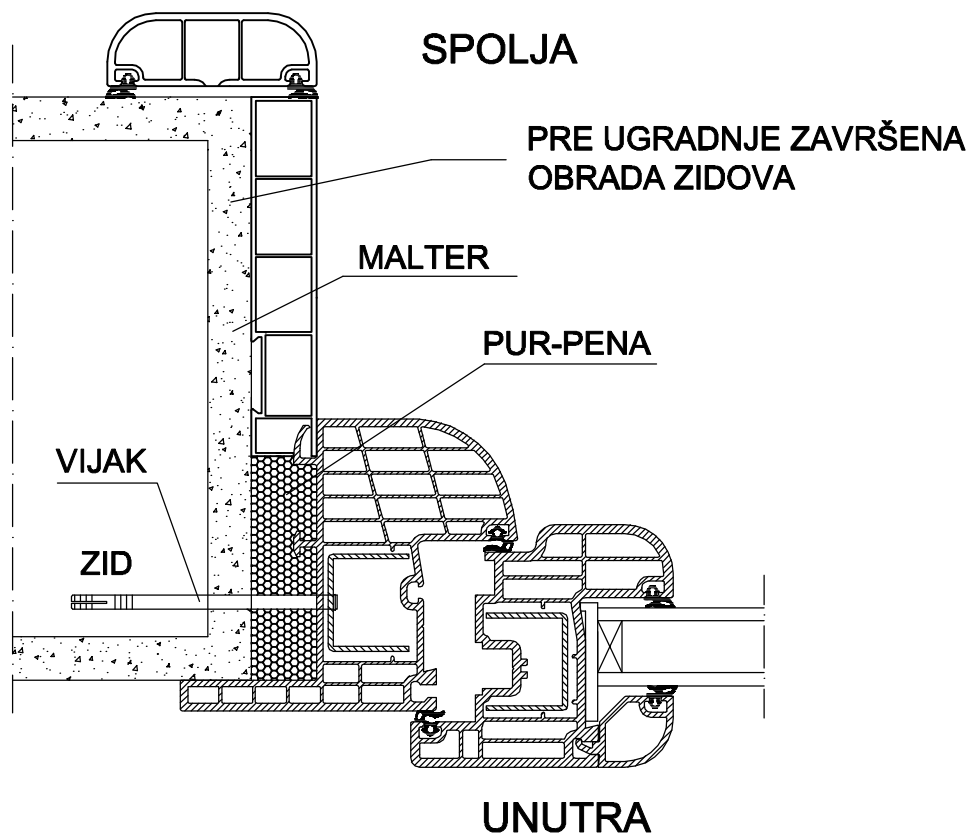
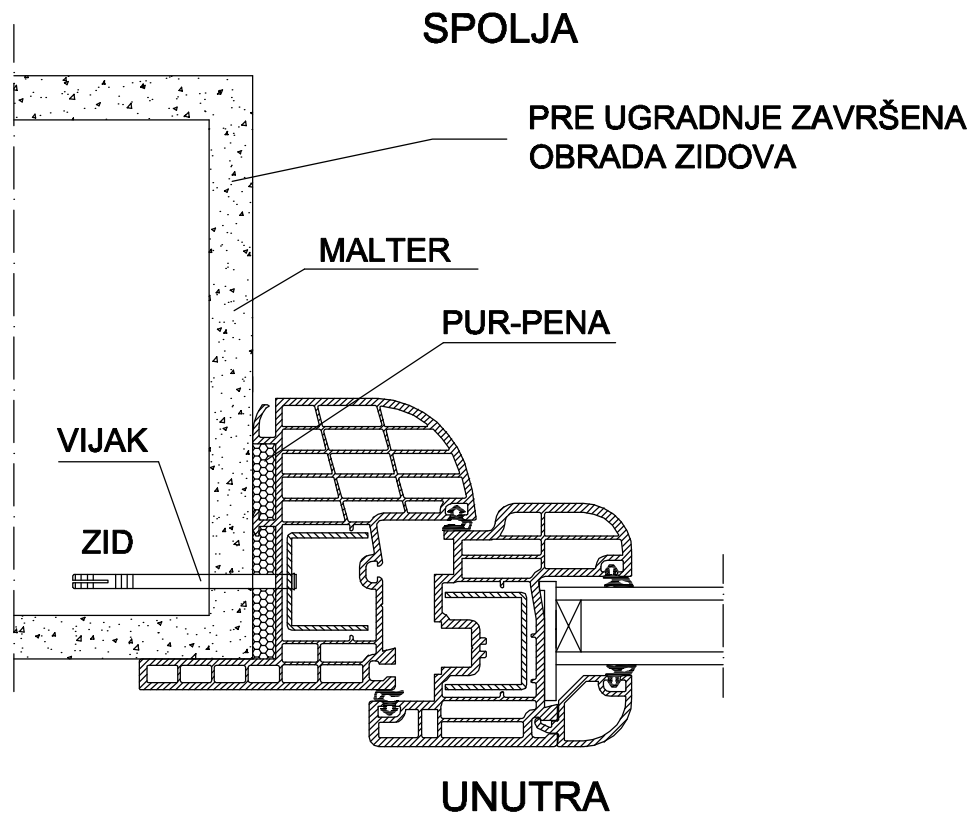
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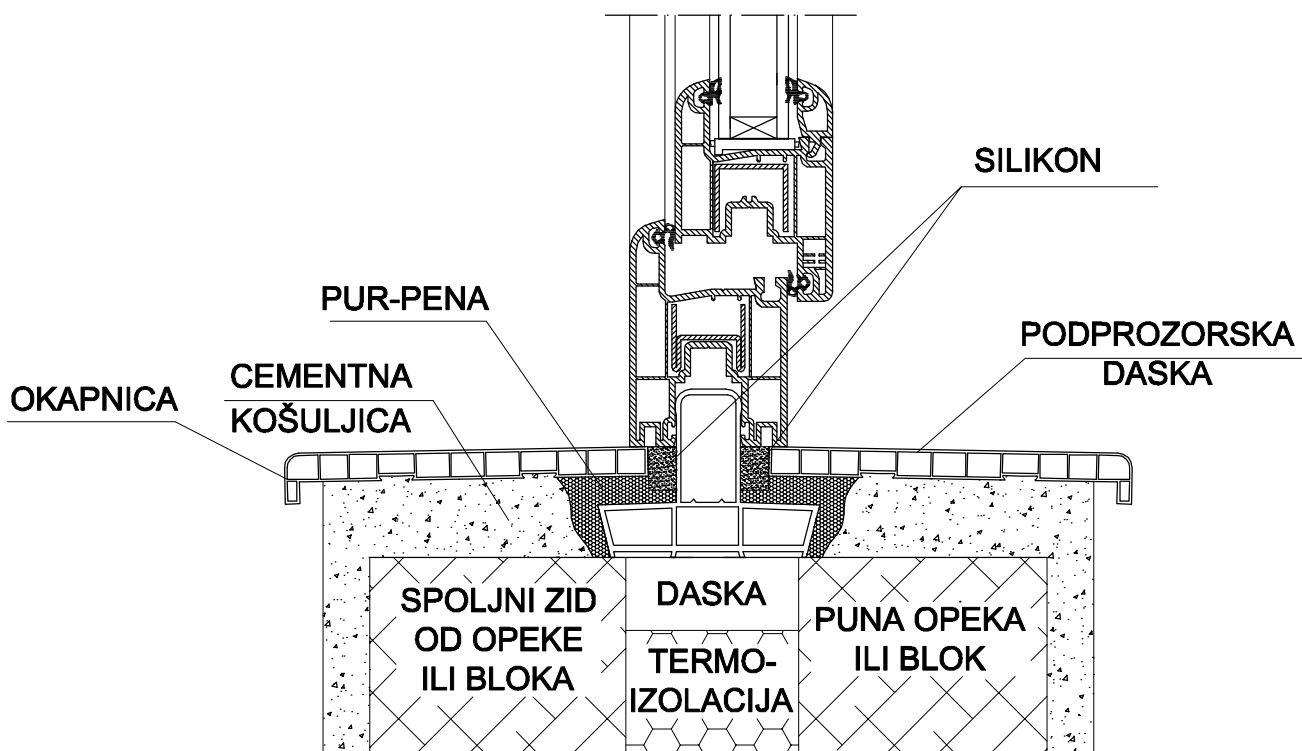
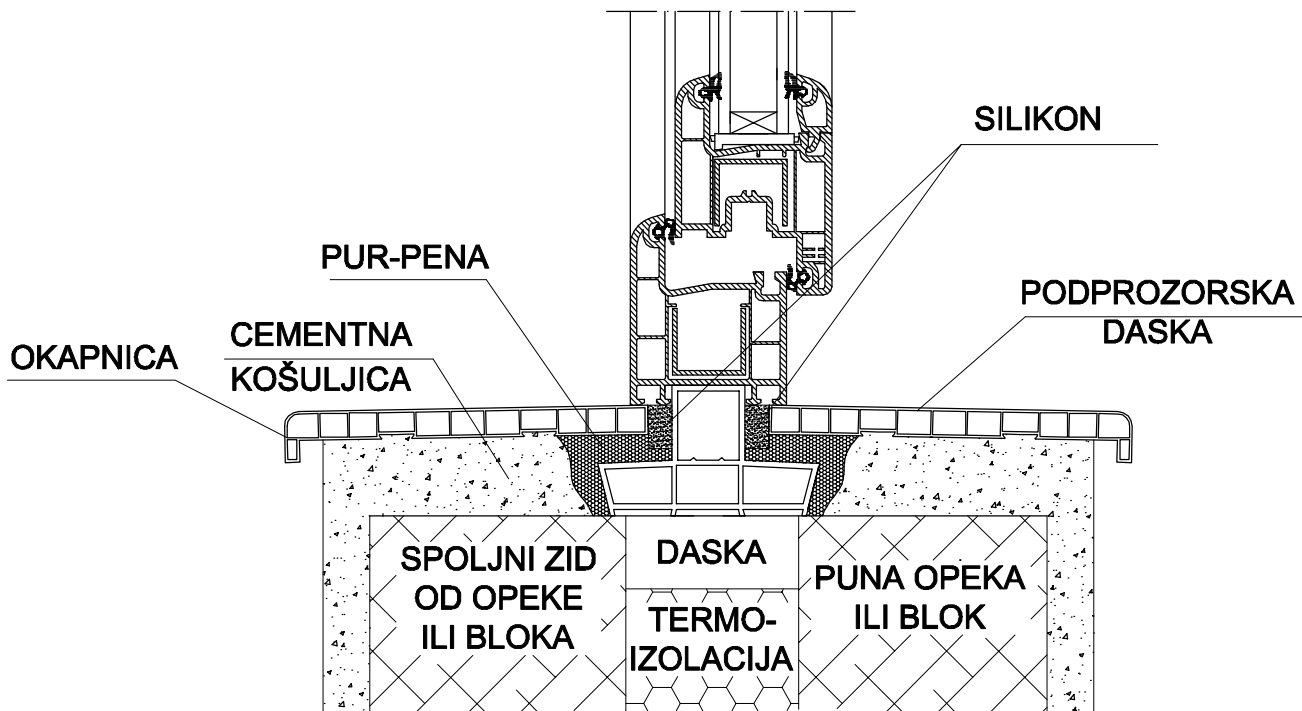
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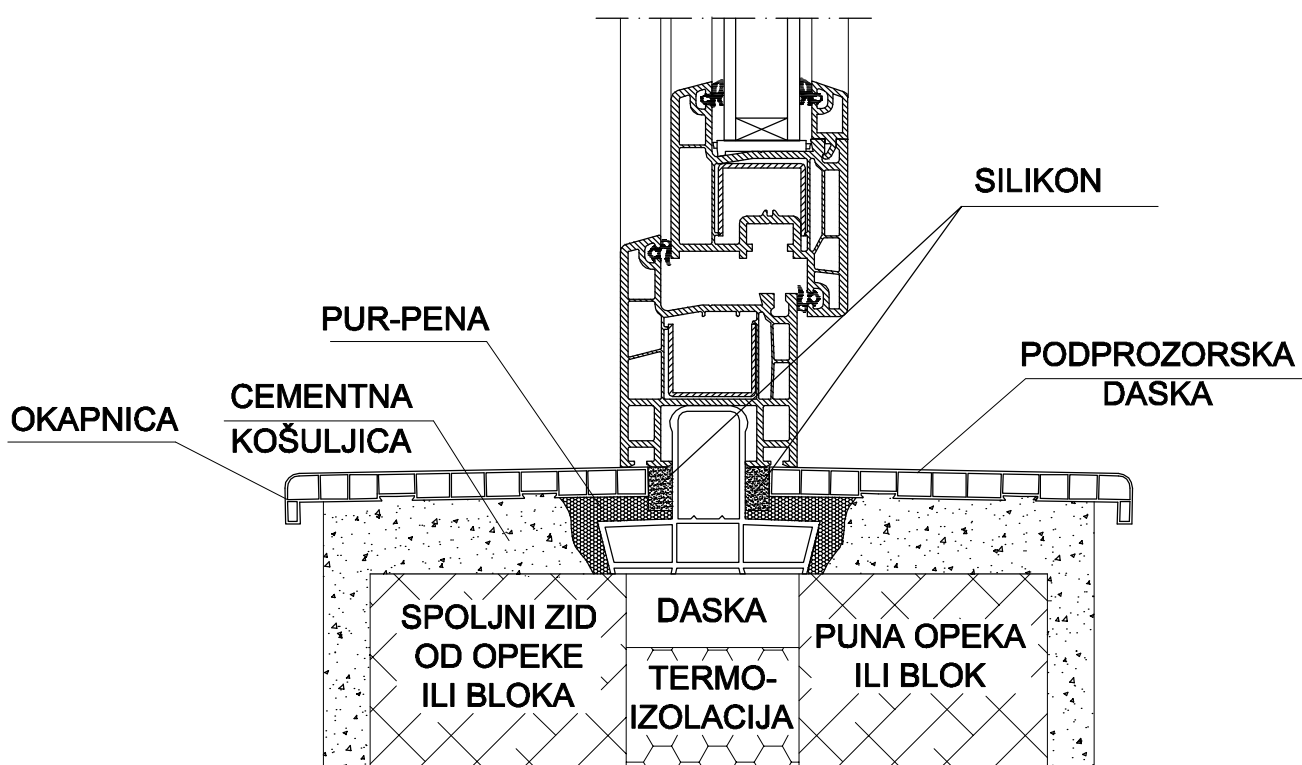
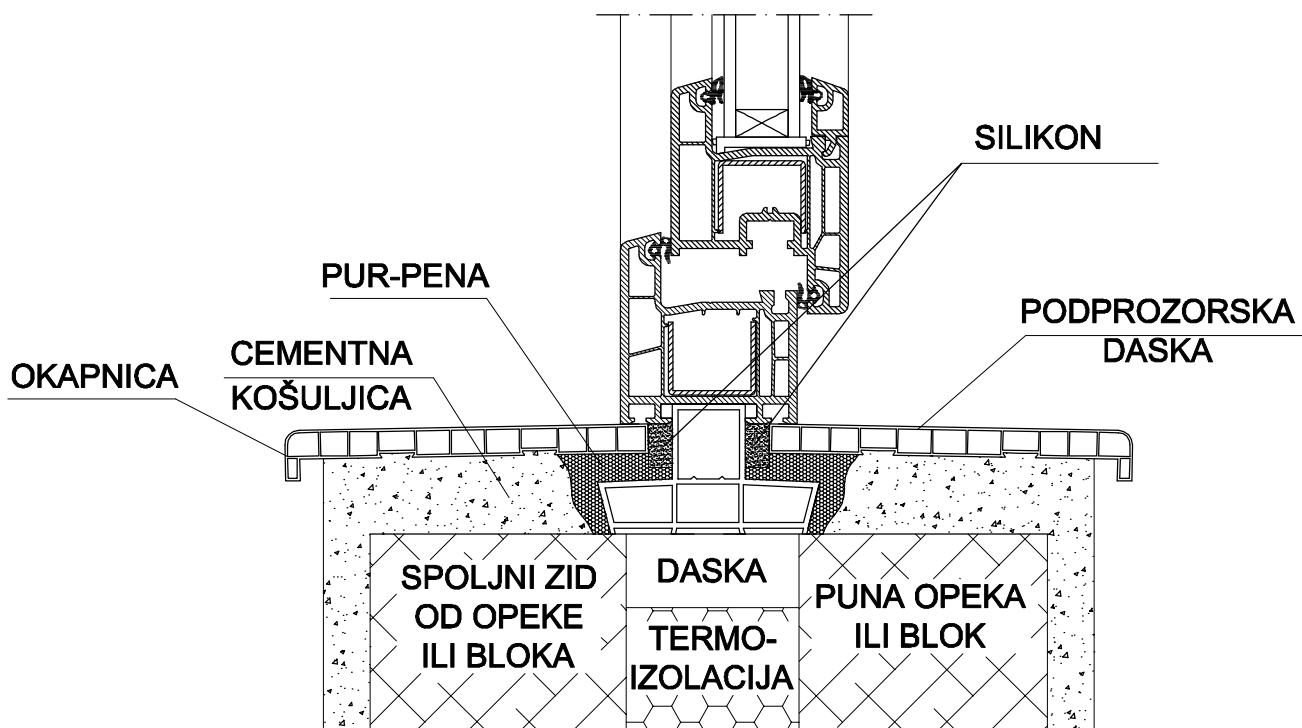
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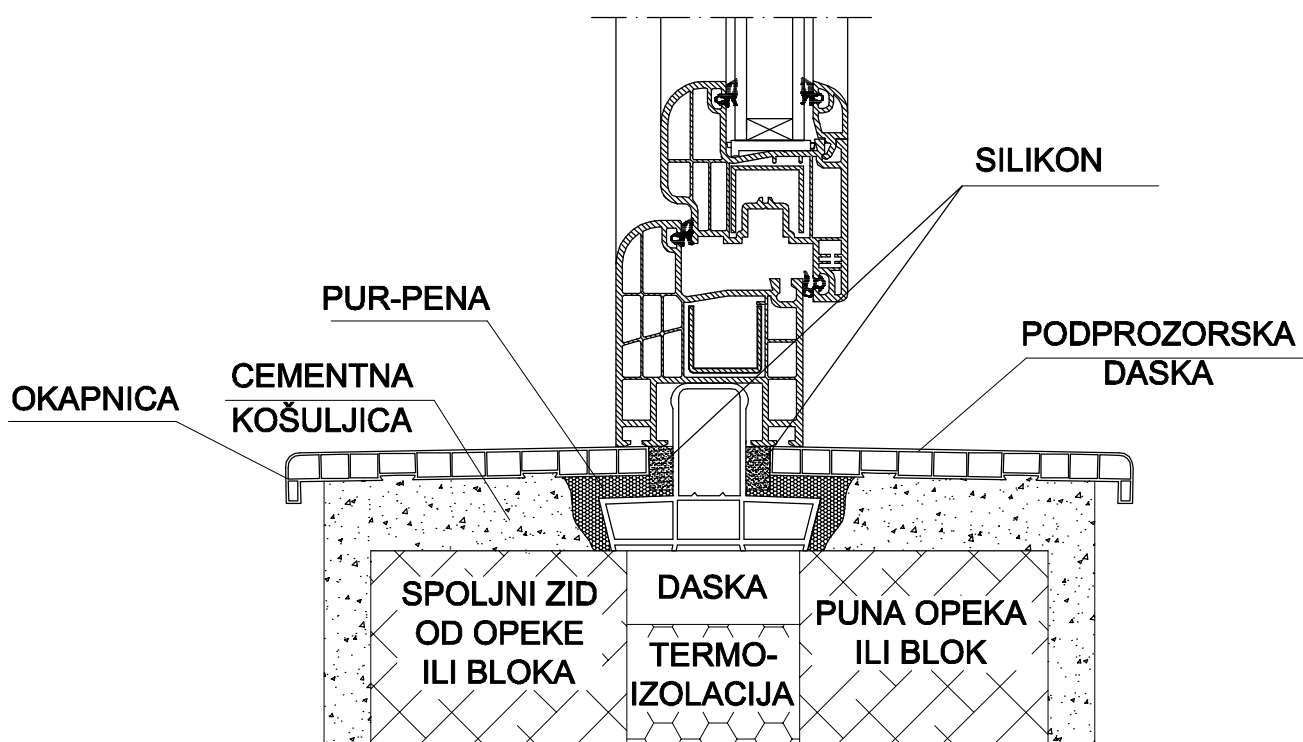
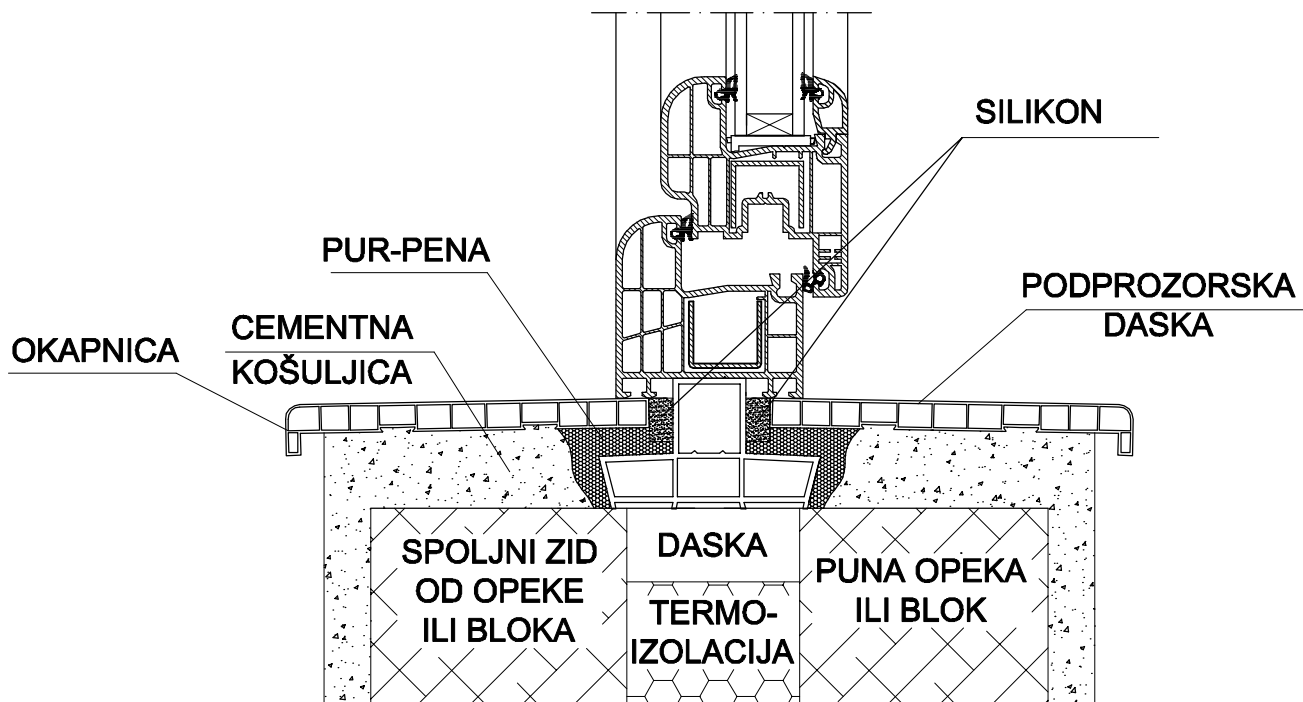
# UGRADNJA OKAPNICE I POTPROZORSKE DASKE SISTEM 300



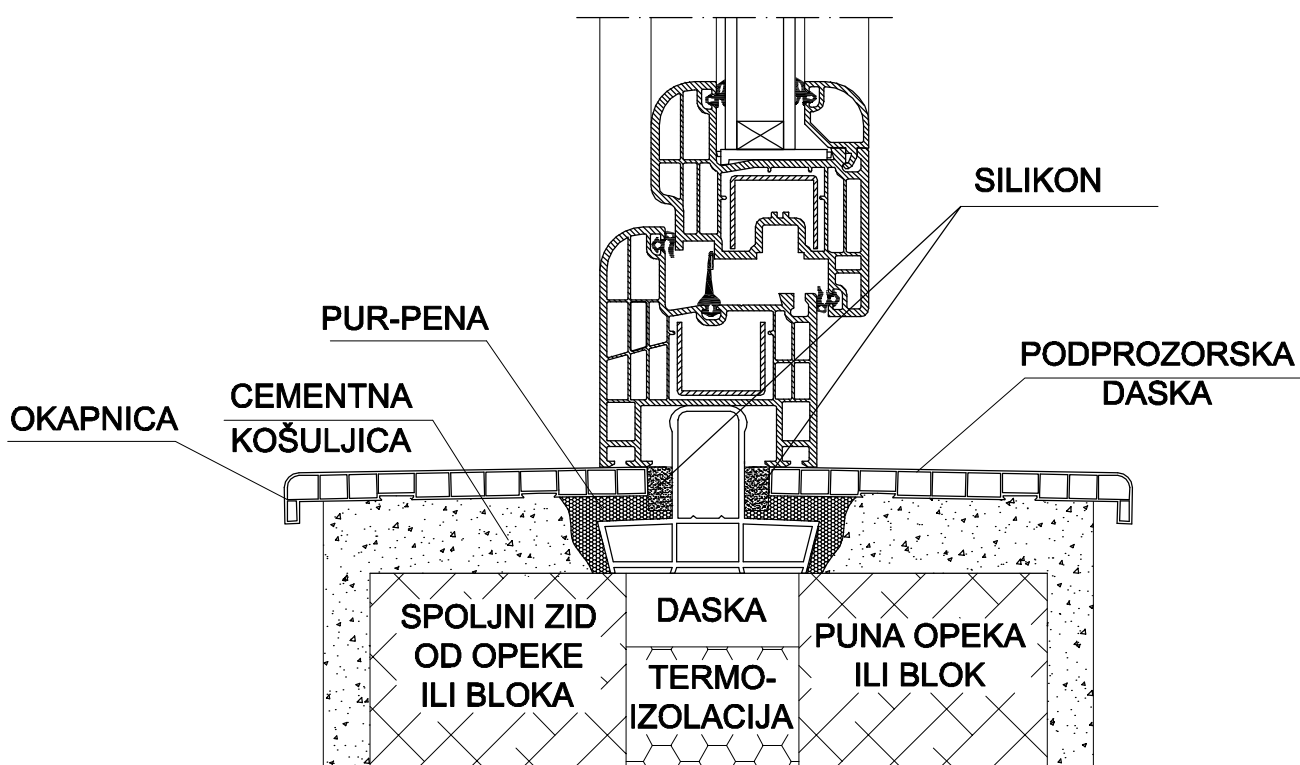
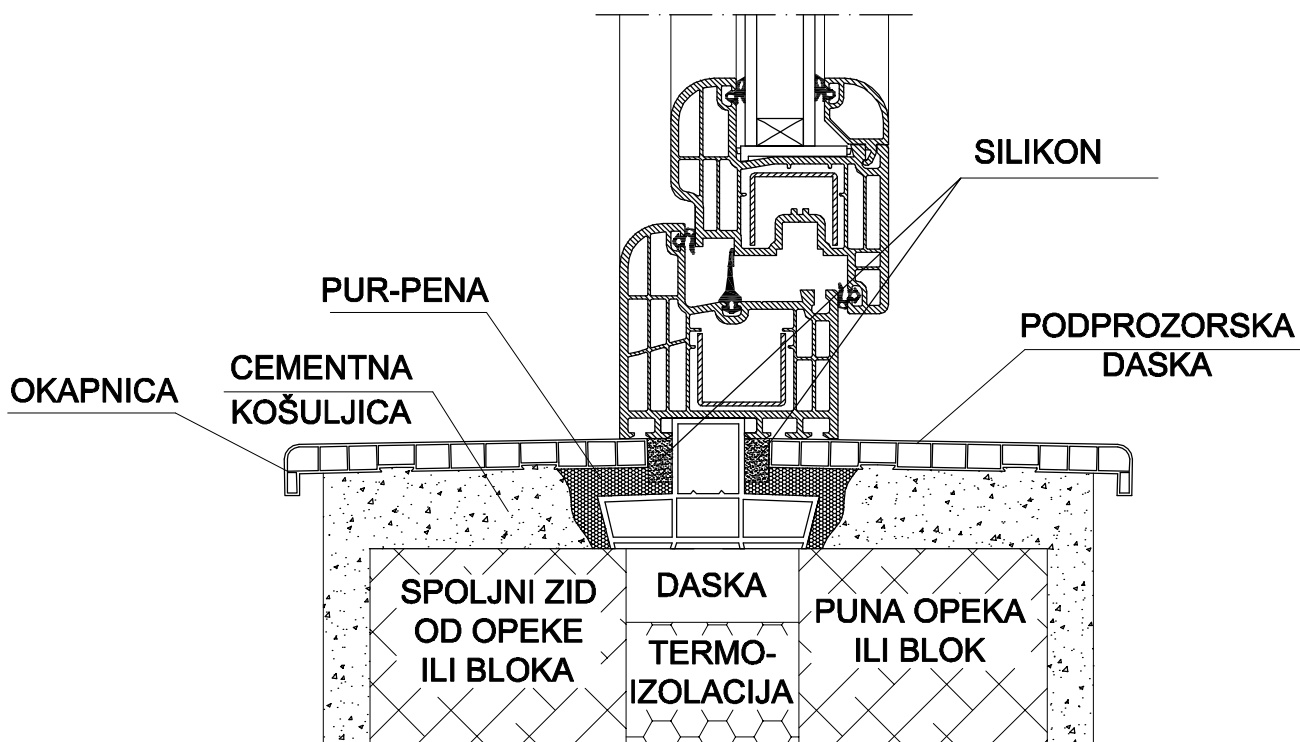
# UGRADNJA OKAPNICE I POTPROZORSKE DASKE SISTEM 400



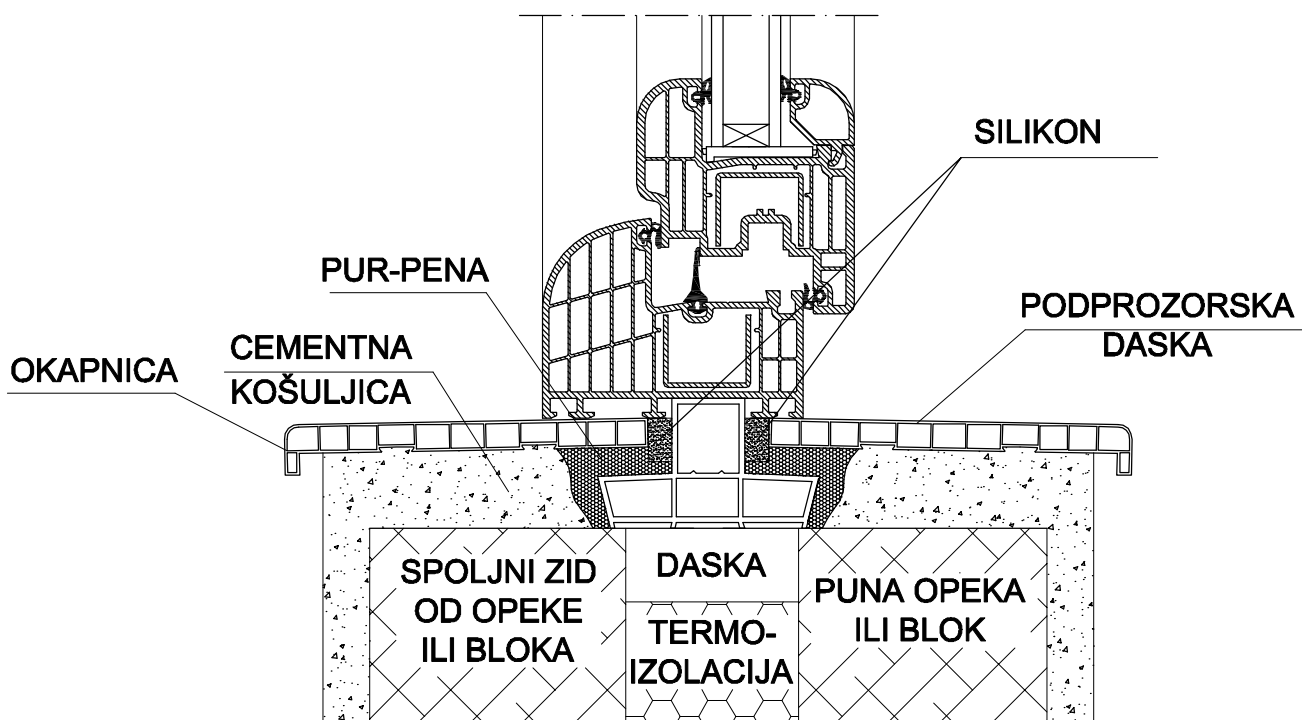
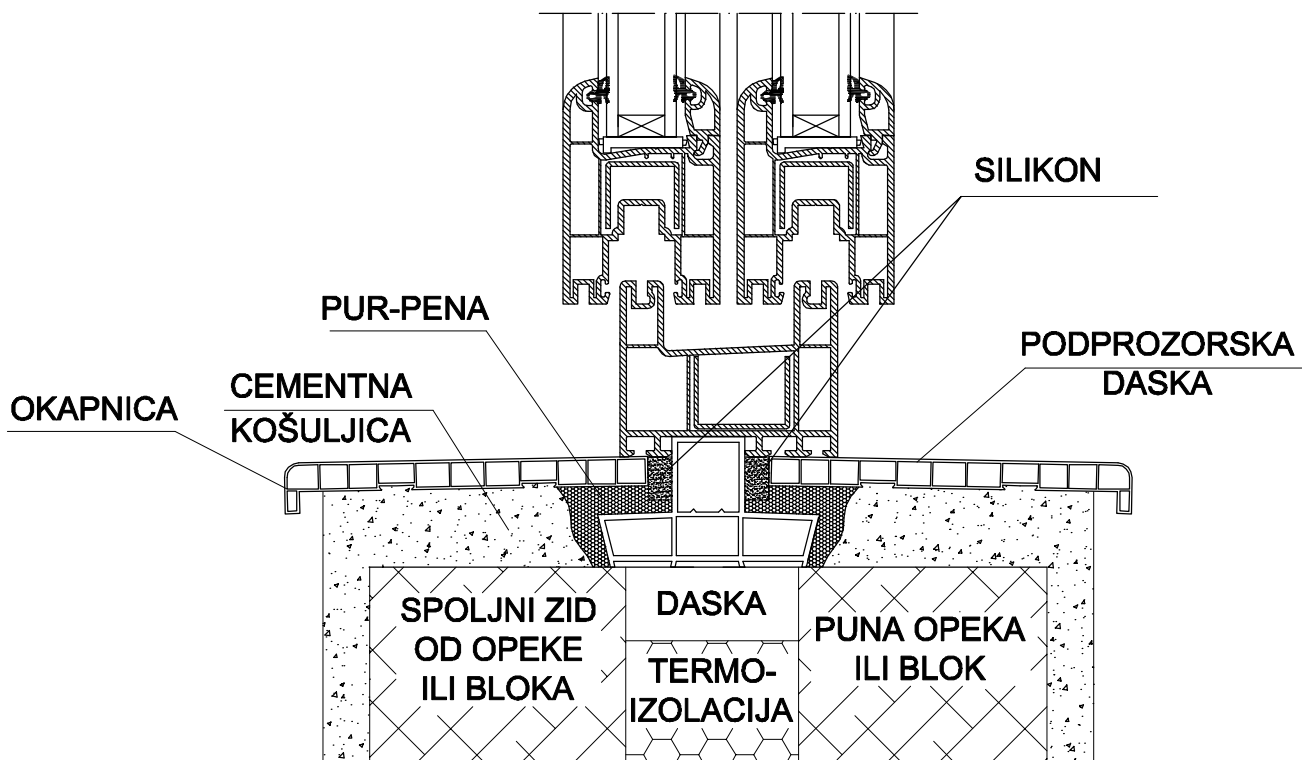
# UGRADNJA OKAPNICE I POTPROZORSKE DASKE SISTEM 500



# UGRADNJA OKAPNICE I POTPROZORSKE DASKE SISTEM 600



# UGRADNJA OKAPNICE I POTPROZORSKE DASKE SISTEM 800



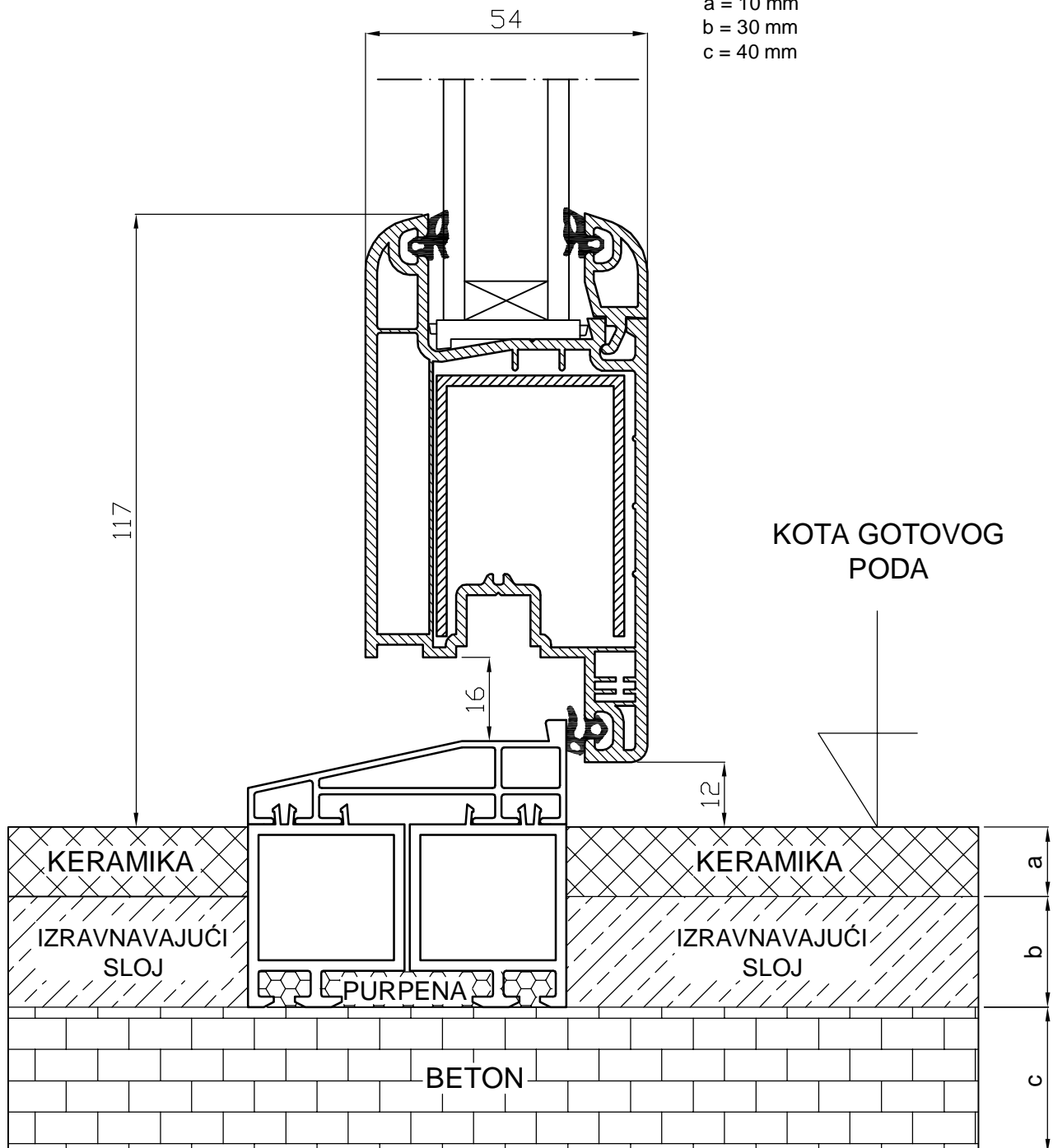


# DETALJ UGRADNJE ULAZNIH VRATA SISTEM 300

- a - debljina pločica
- b - debljina izravnavajućeg sloja
- c - debljina betona

Preporučuju se sledeće vrednosti za a,b, i c:

- a = 10 mm
- b = 30 mm
- c = 40 mm

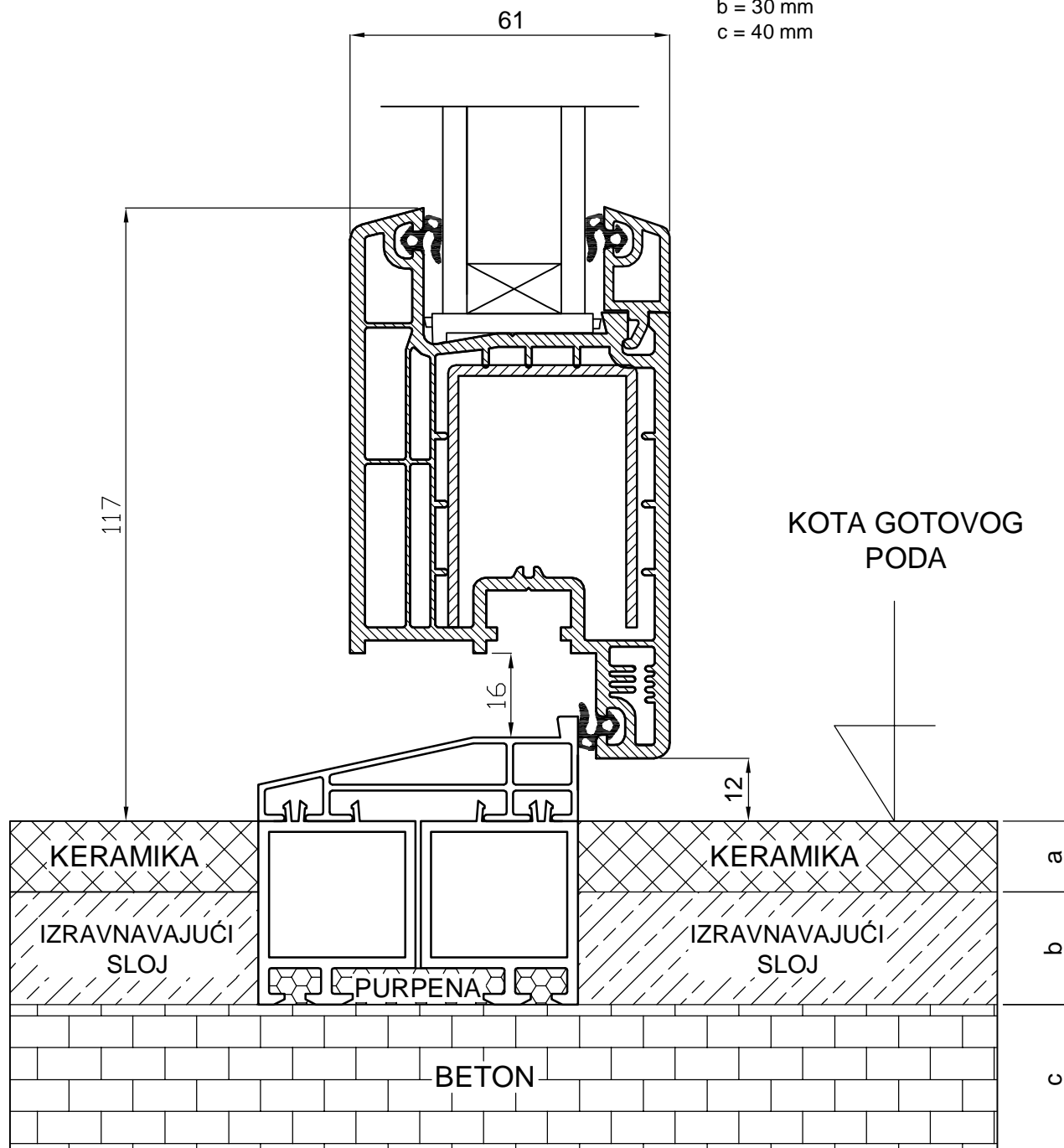


# DETALJ UGRADNJE ULAZNIH VRATA SISTEM 400

- a - debljina pločica
- b - debljina izravnavajućeg sloja
- c - debljina betona

Preporučuju se sledeće vrednosti za a, b, i c:

- a = 10 mm
- b = 30 mm
- c = 40 mm



# DETALJ UGRADNJE ULAZNIH VRATA SISTEM 500

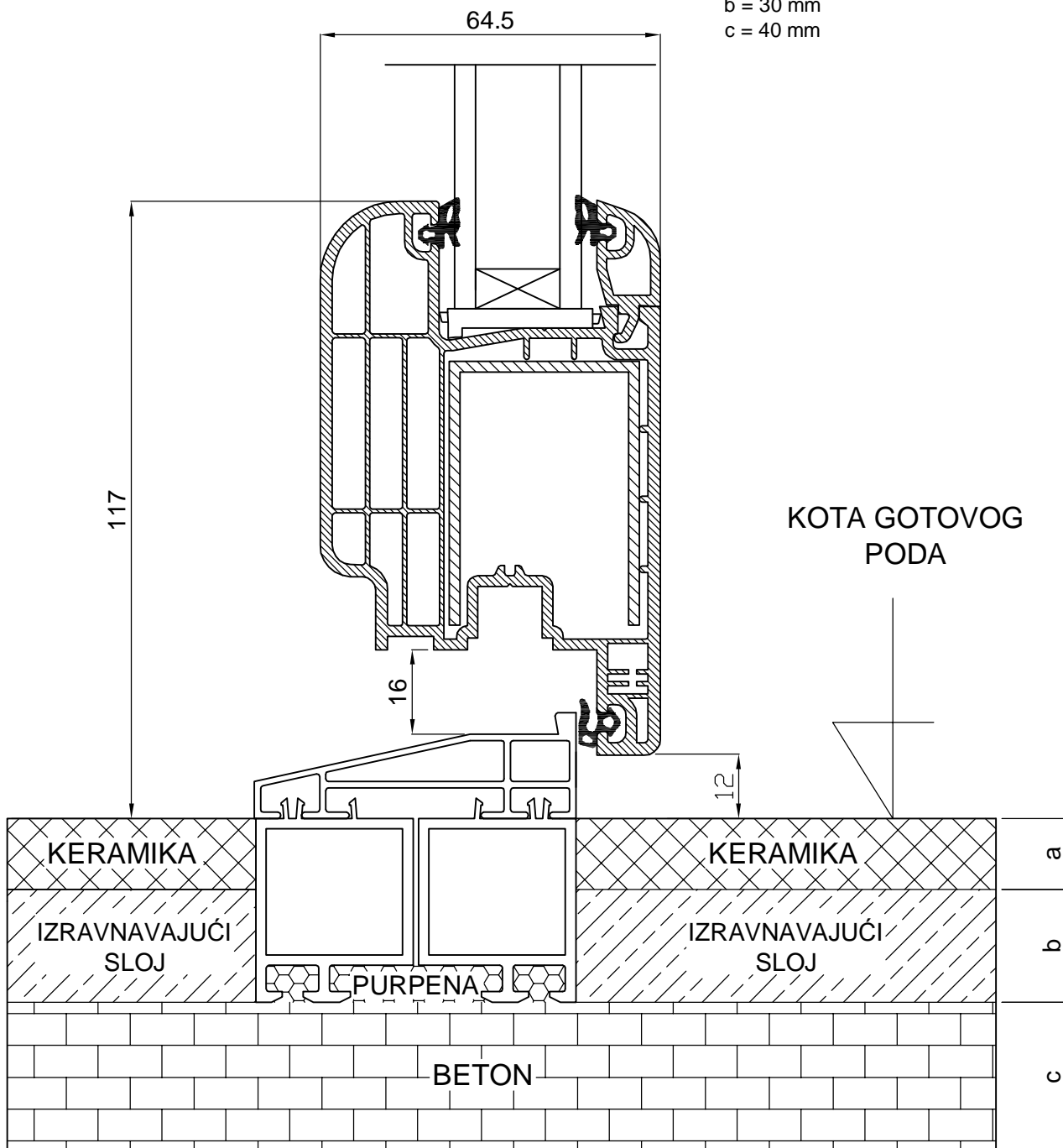
a - debljina pločica  
b - debljina izravnavajućeg sloja  
c - debljina betona

Preporučuju se sledeće vrednosti za a, b, i c:

a = 10 mm

b = 30 mm

c = 40 mm



# DETALJ UGRADNJE ULAZNIH VRATA SISTEM 600

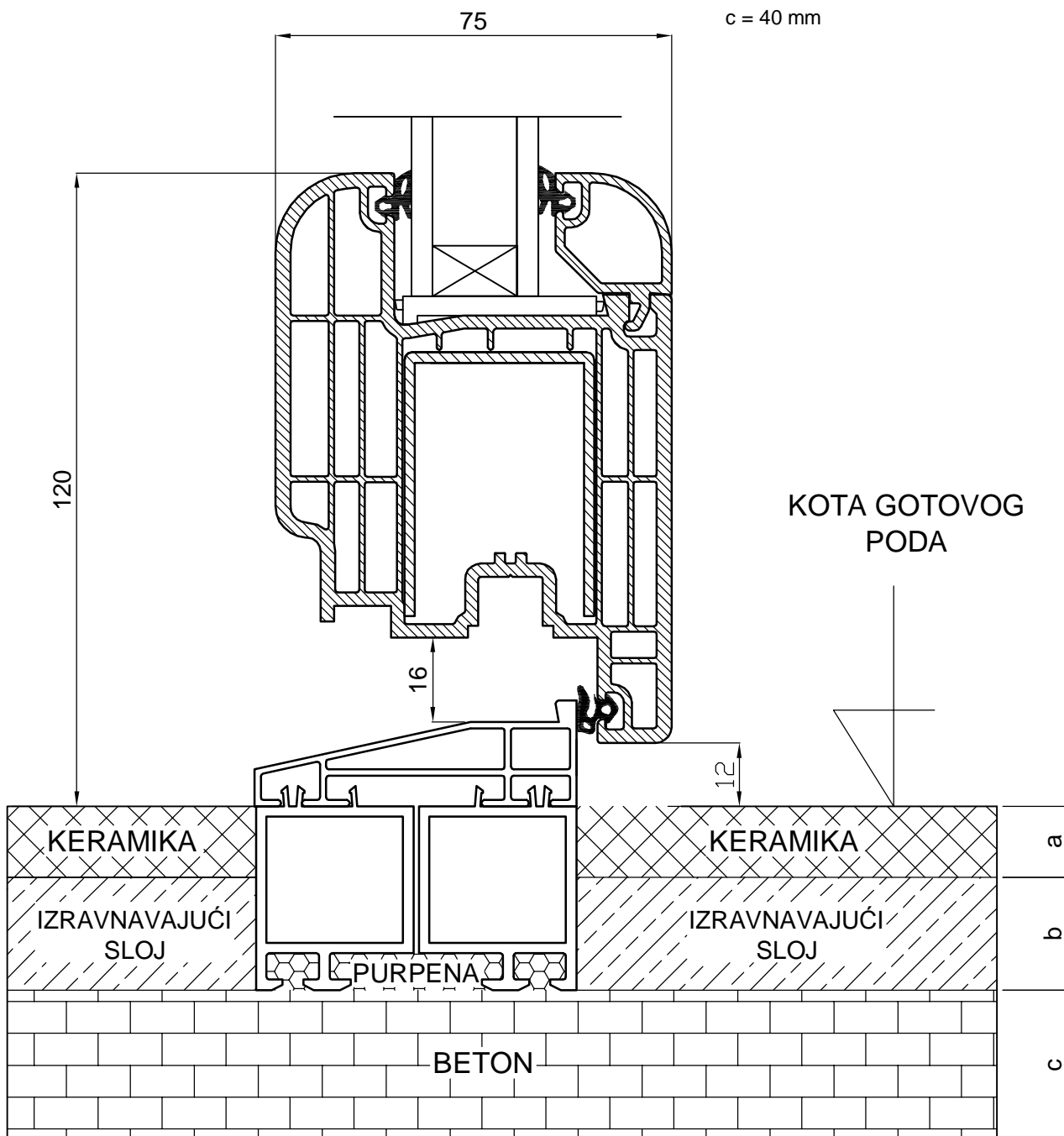
a - debljina pločica  
b - debljina izravnavajućeg sloja  
c - debljina betona

Preporučuju se sledeće vrednosti za a,b, i c:

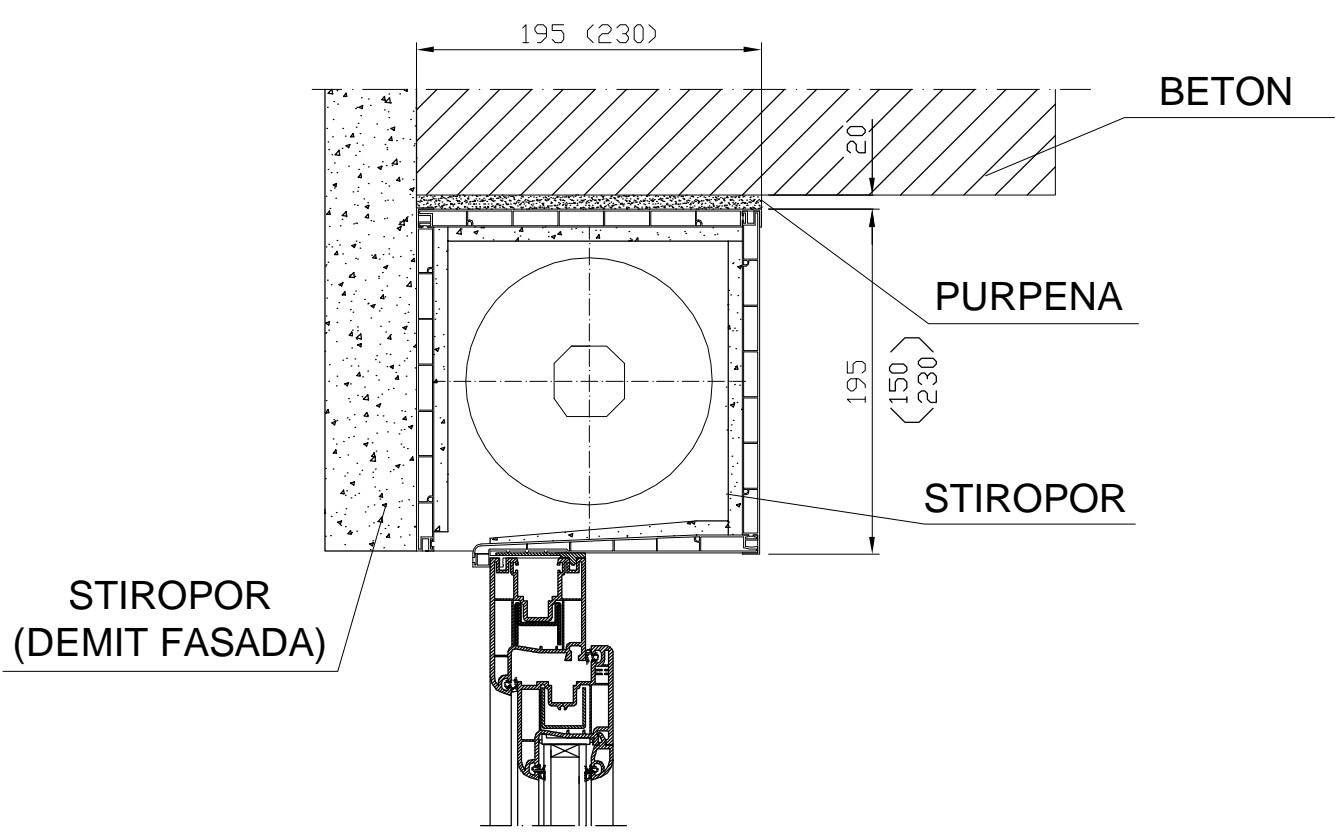
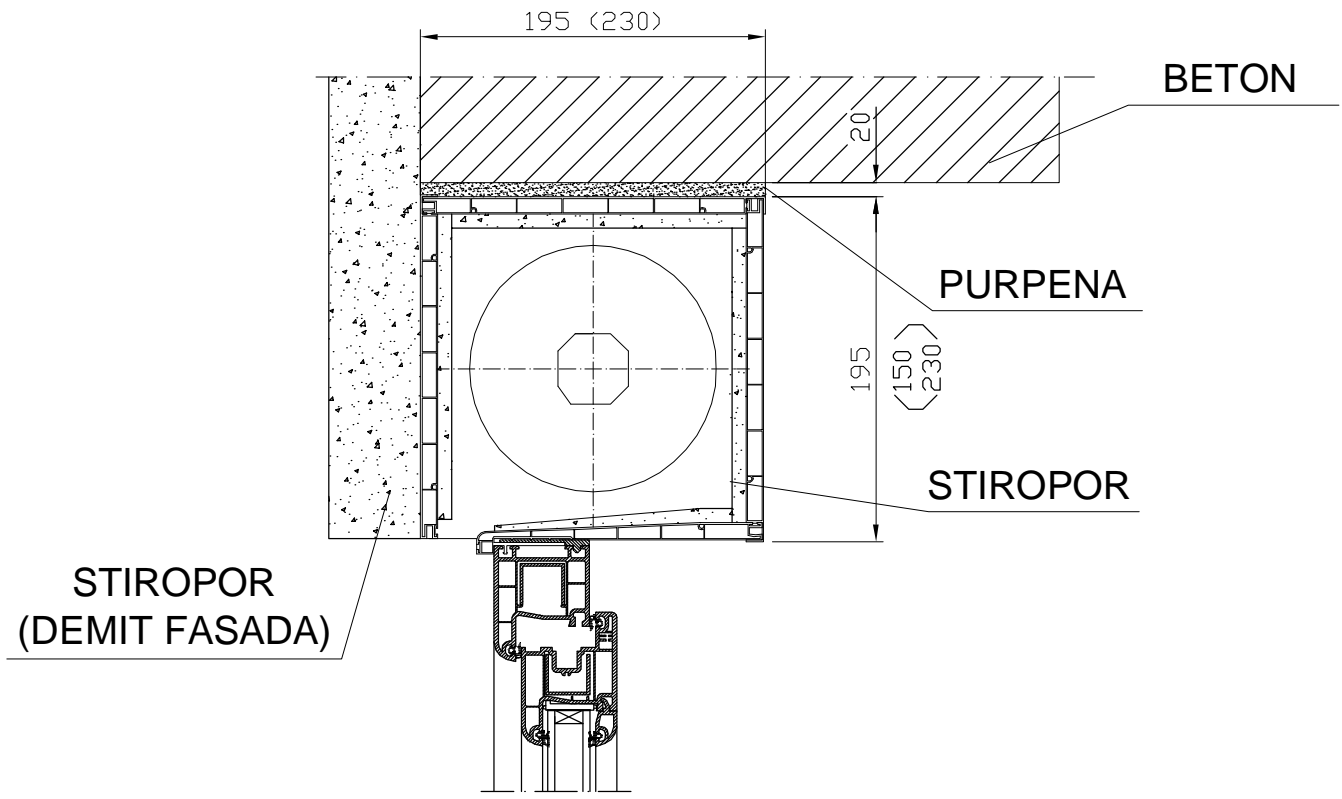
a = 10 mm

b = 30 mm

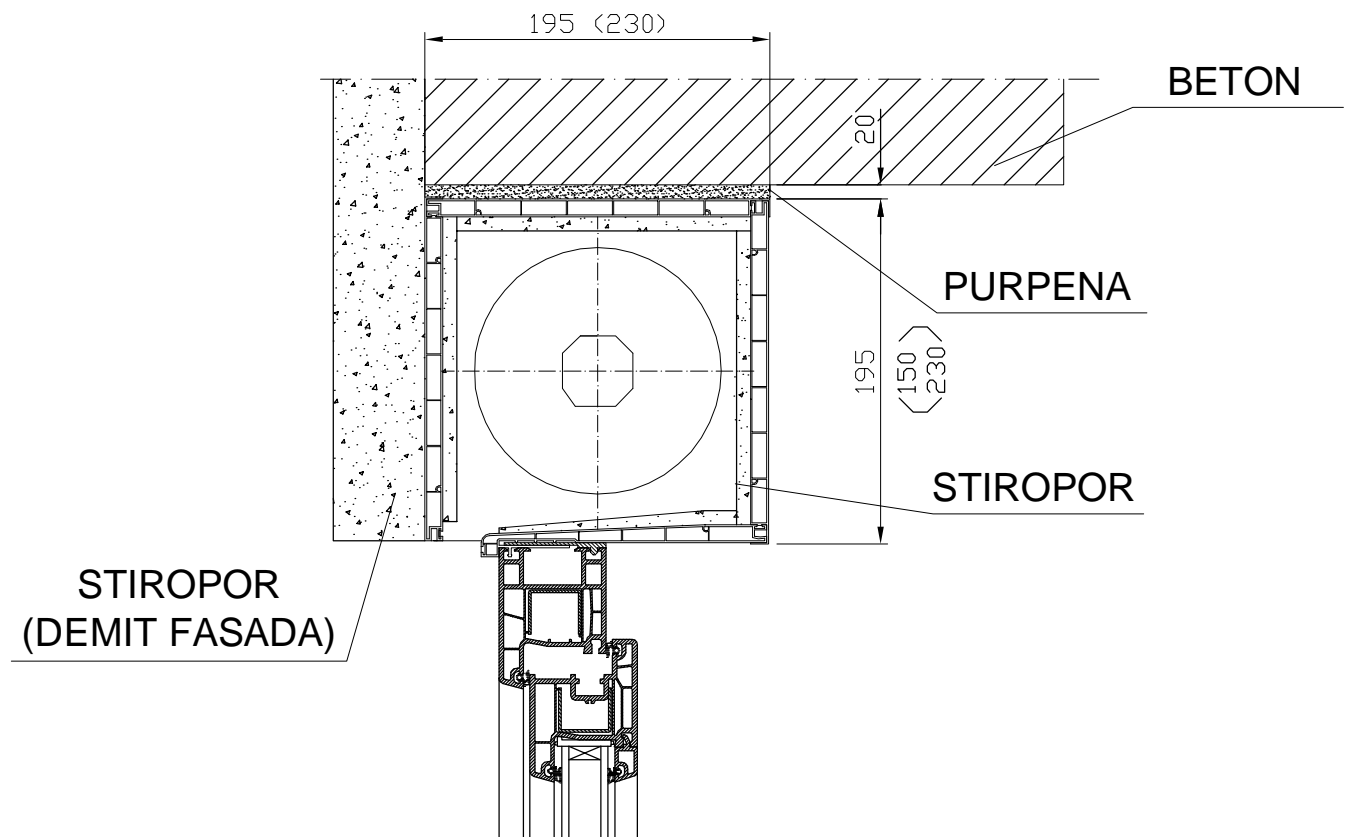
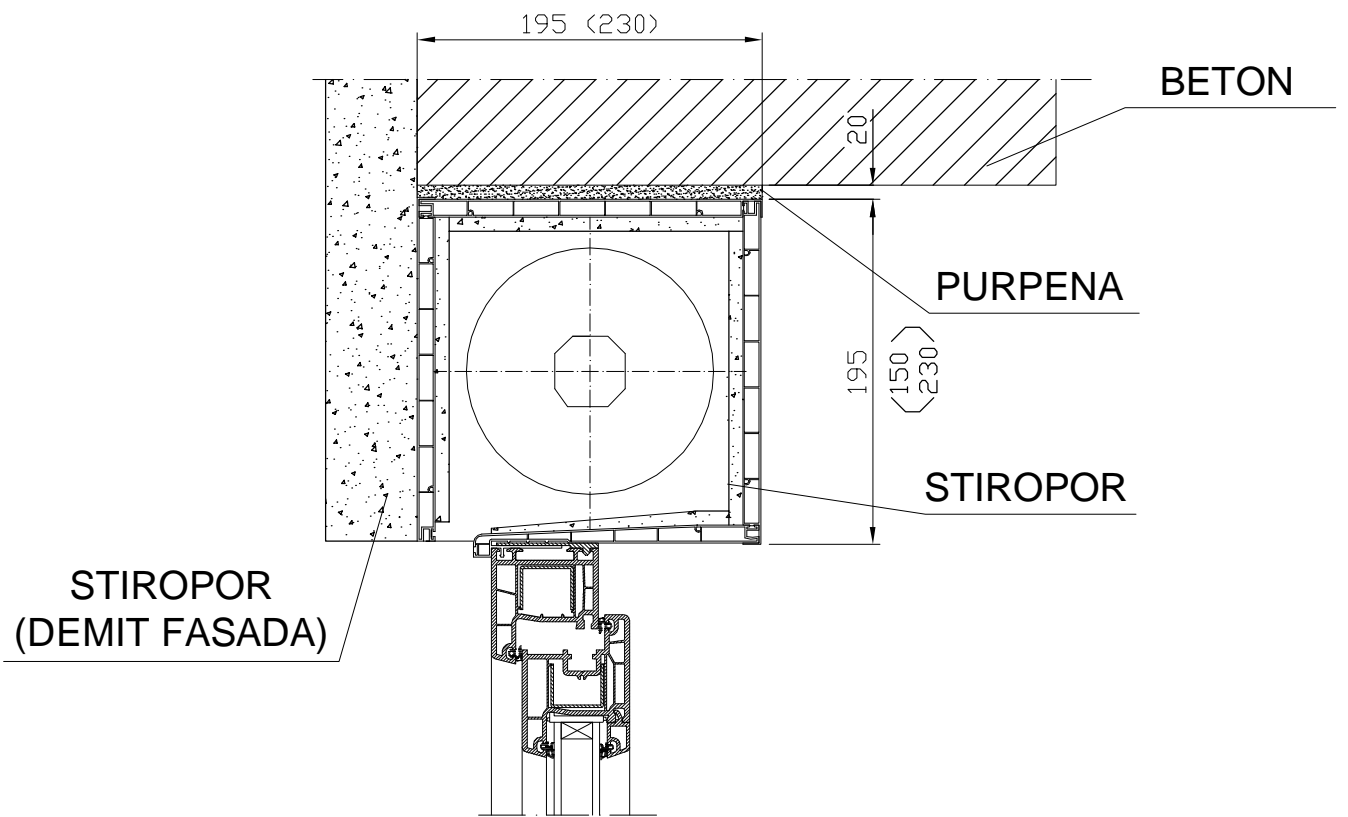
c = 40 mm



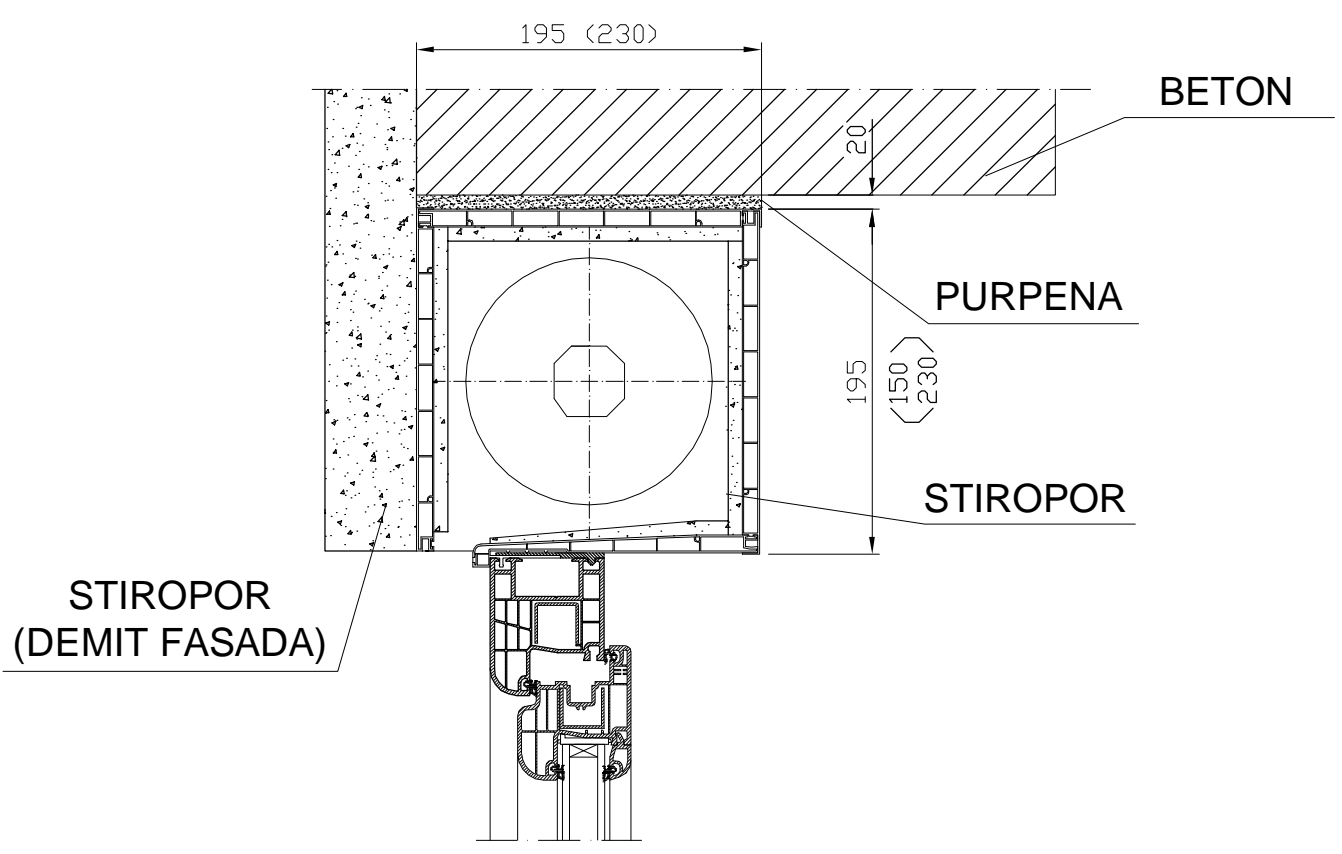
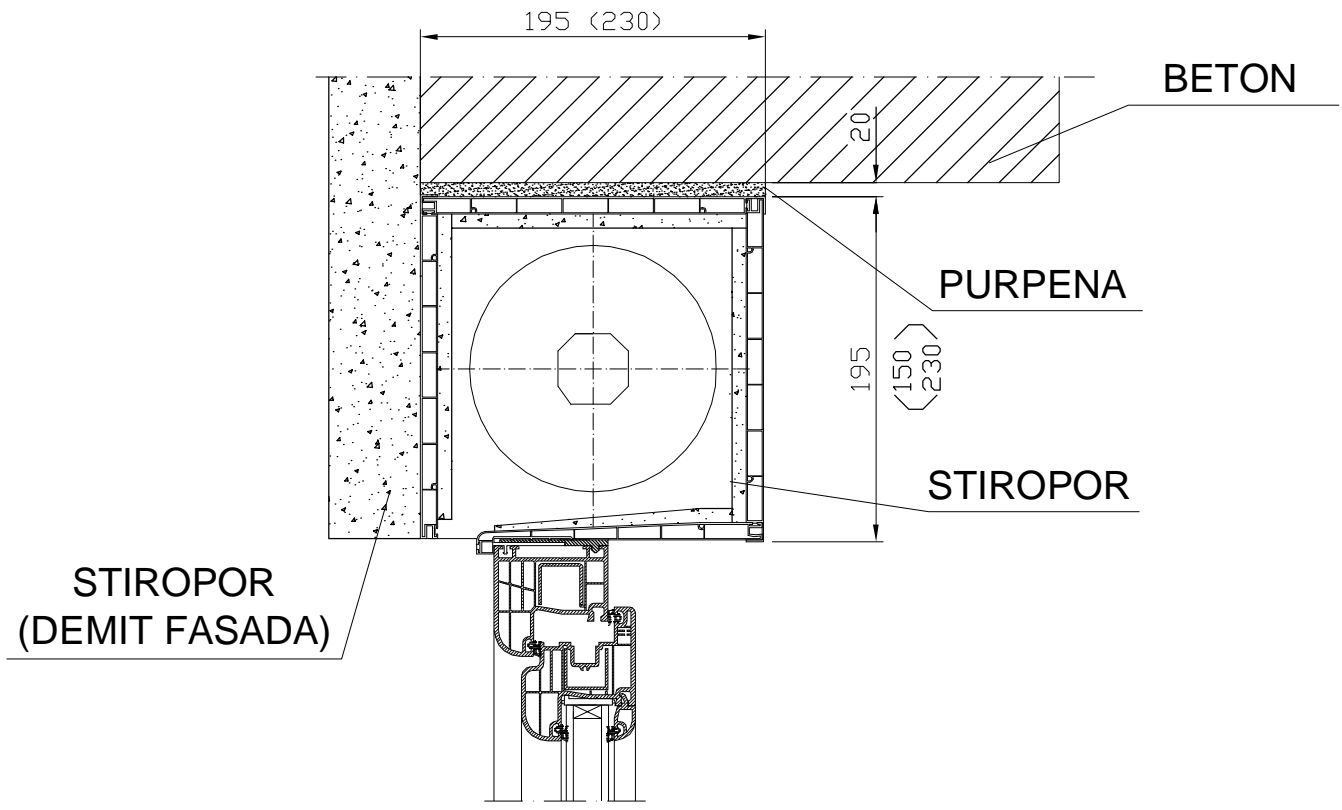
# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU BEZ SPOLJAŠNJEG ZUBA SISTEM 300



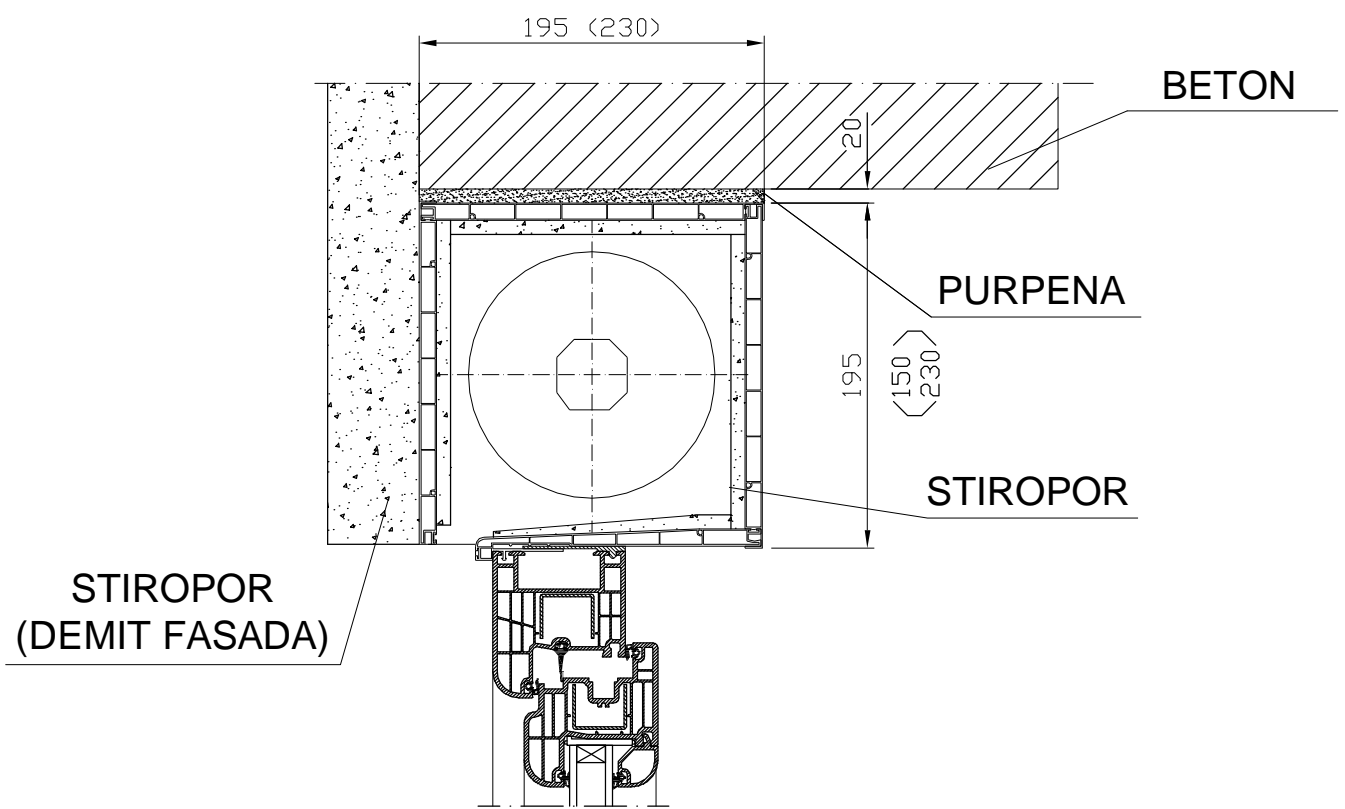
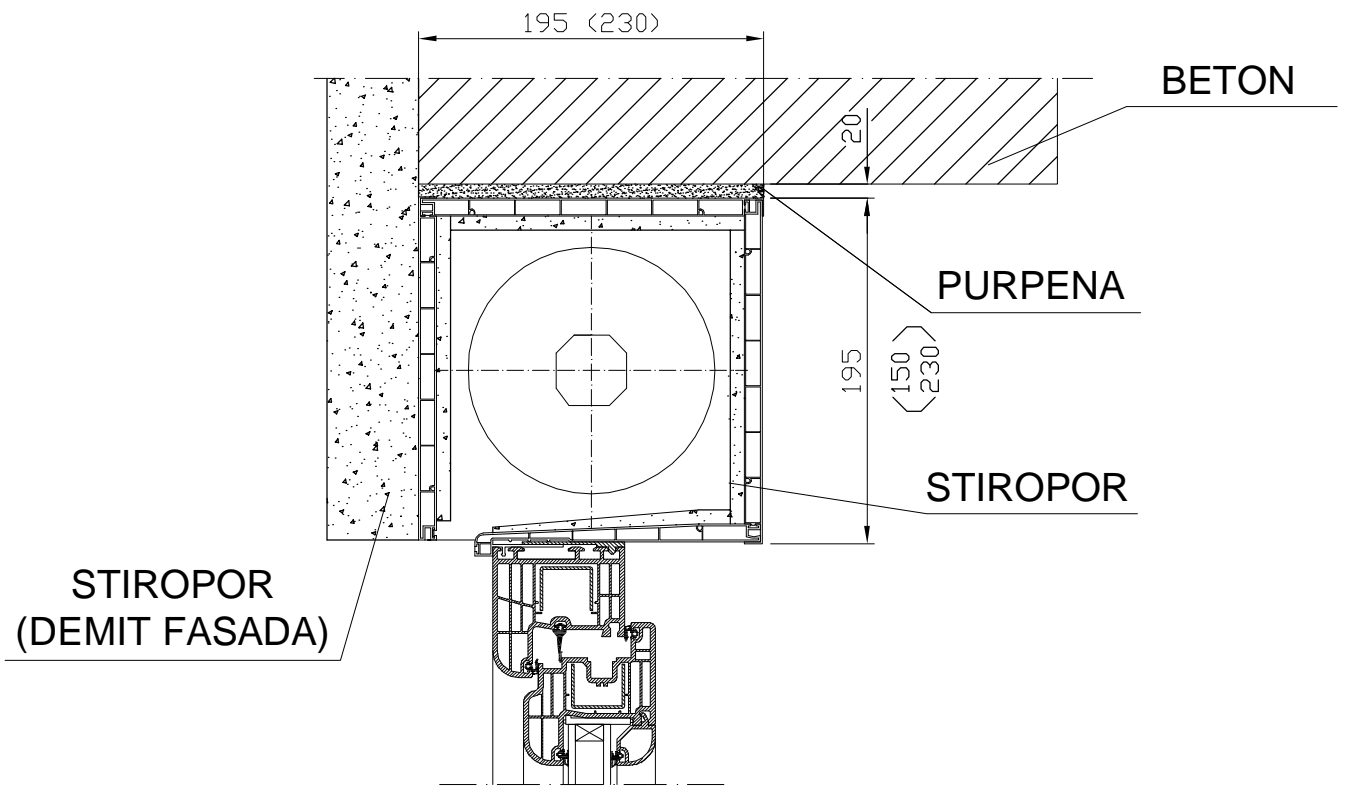
# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU BEZ SPOLJAŠNJEG ZUBA SISTEM 400



# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU BEZ SPOLJAŠNJEG ZUBA SISTEM 500

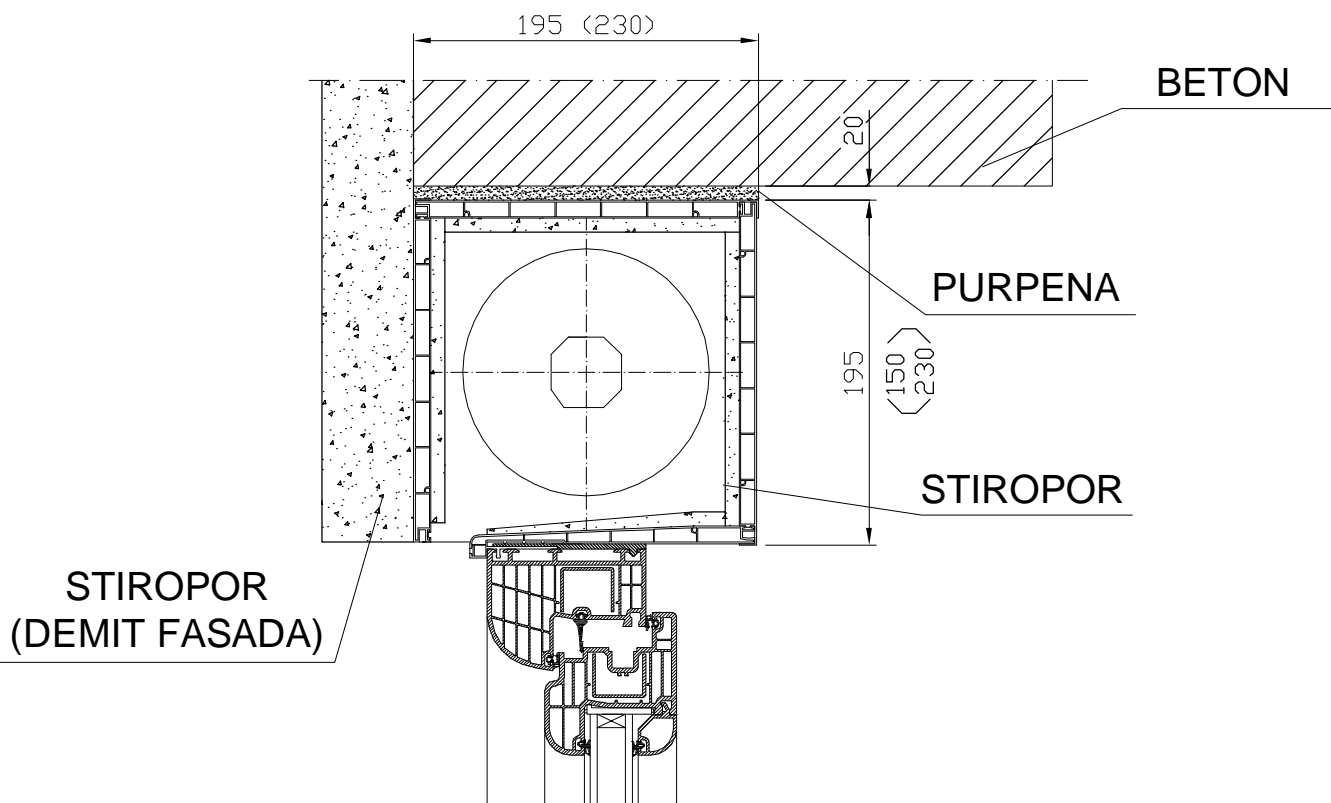
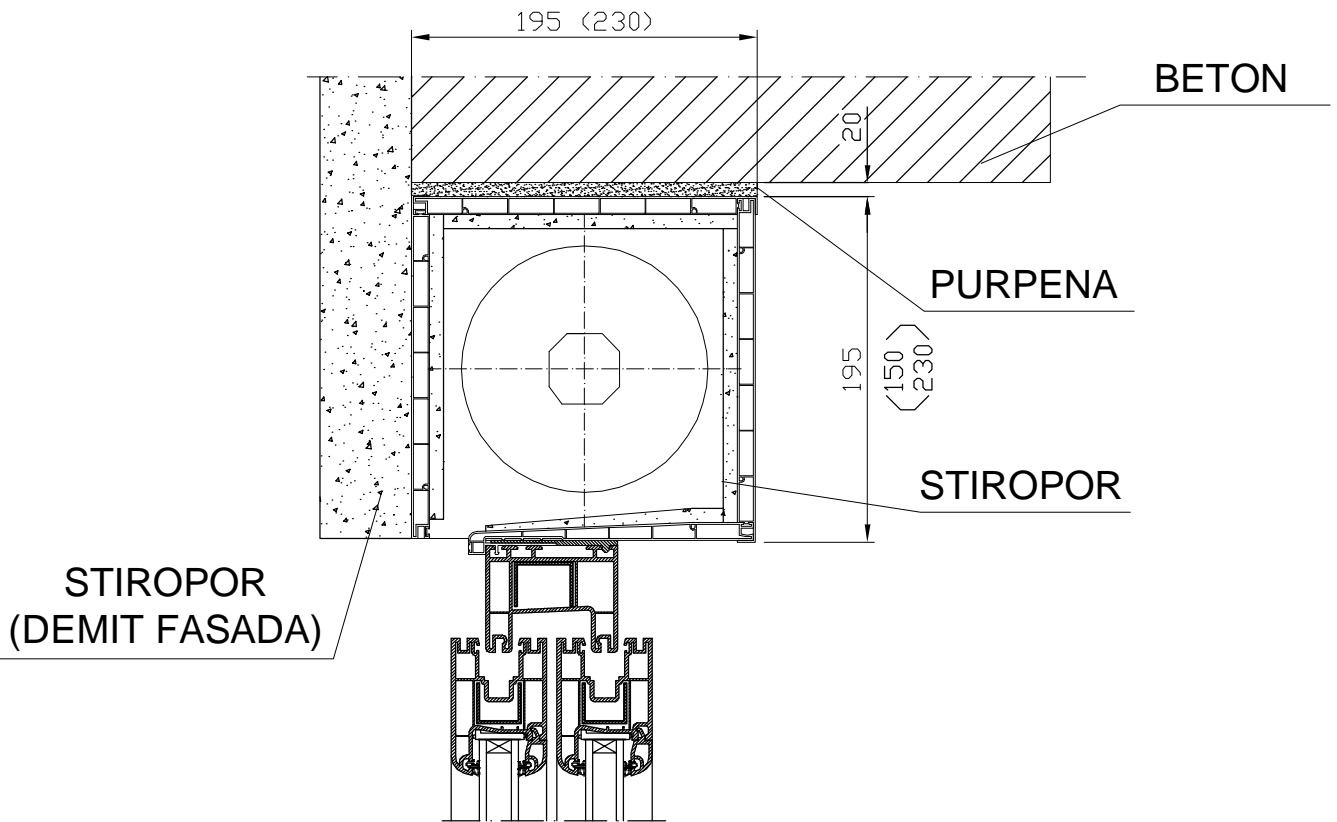


# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU BEZ SPOLJAŠNJEG ZUBA SISTEM 600



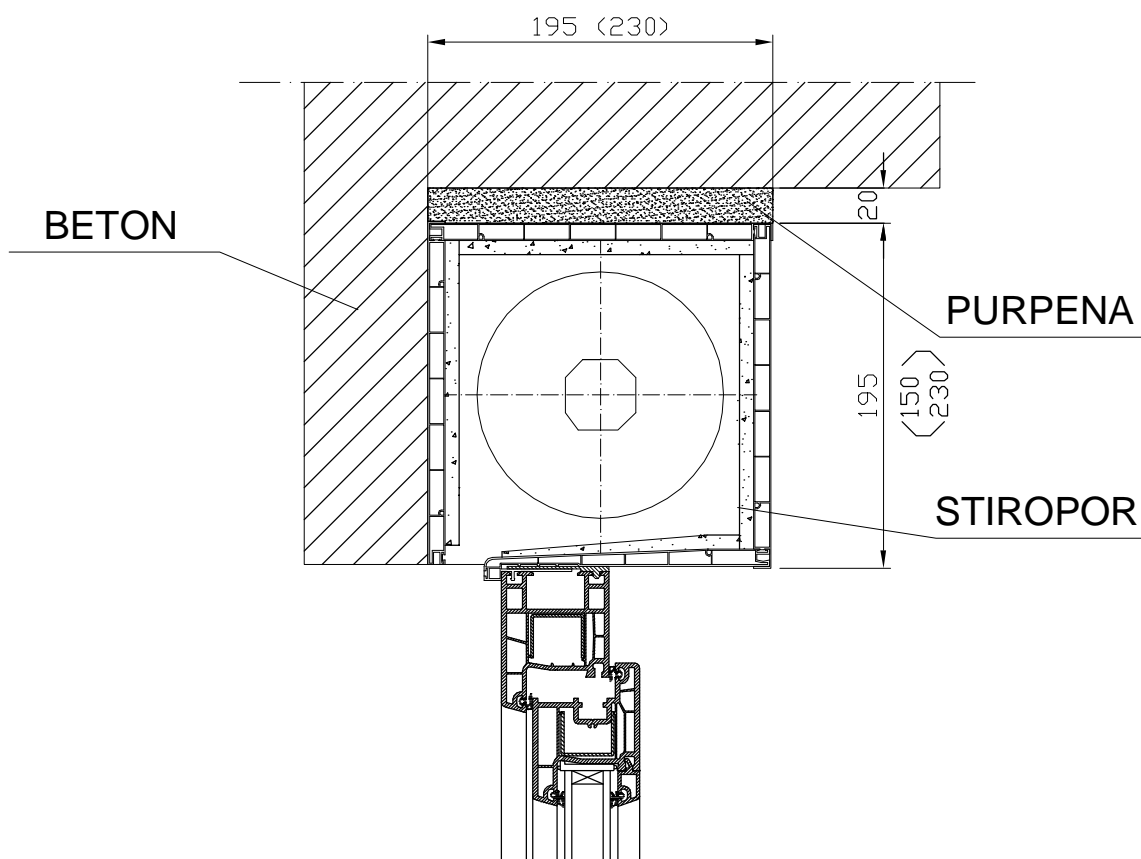
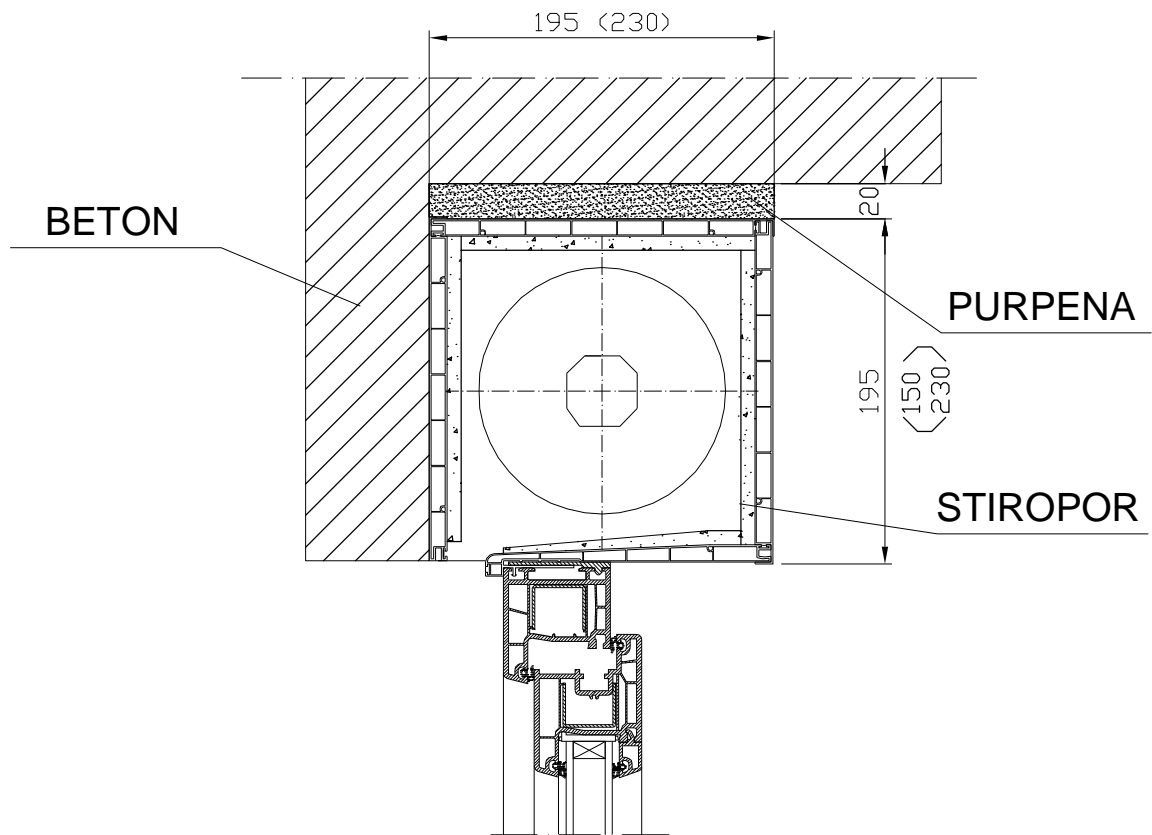


# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU BEZ SPOLJAŠNJEG ZUBA SISTEM 800

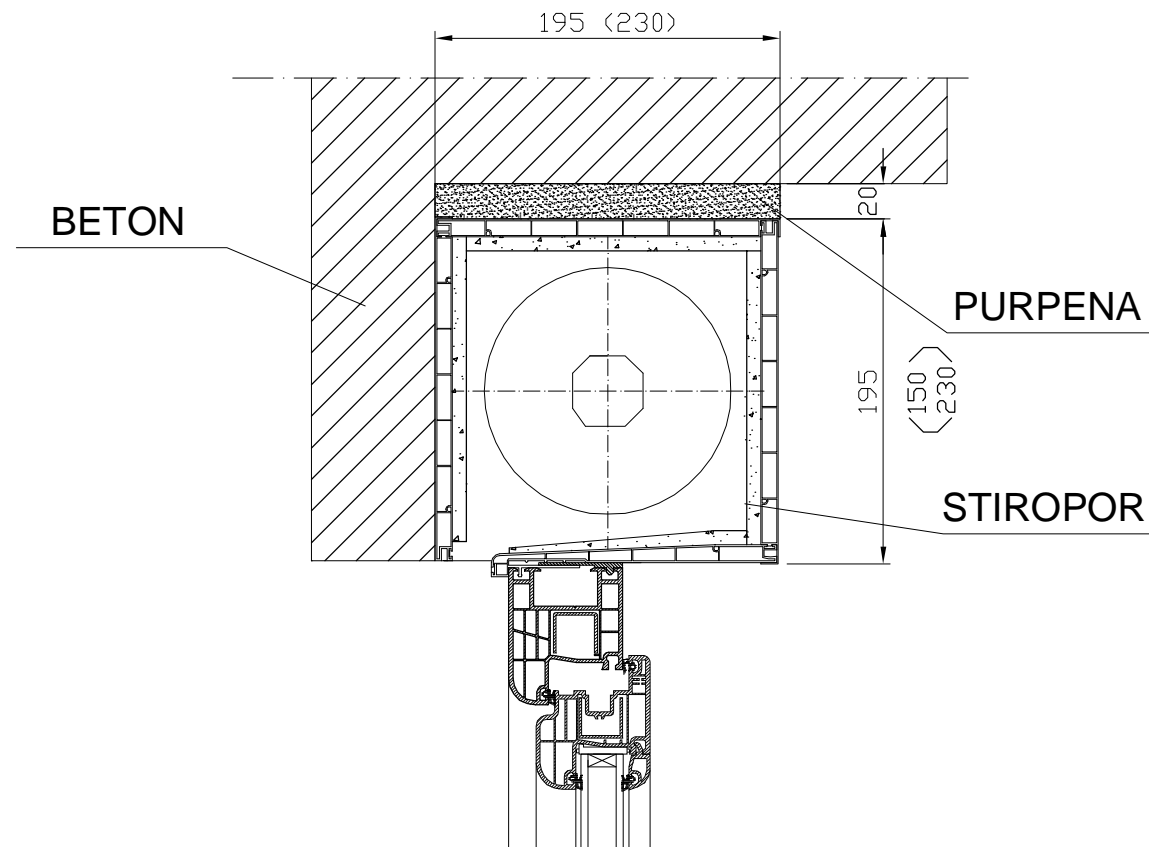
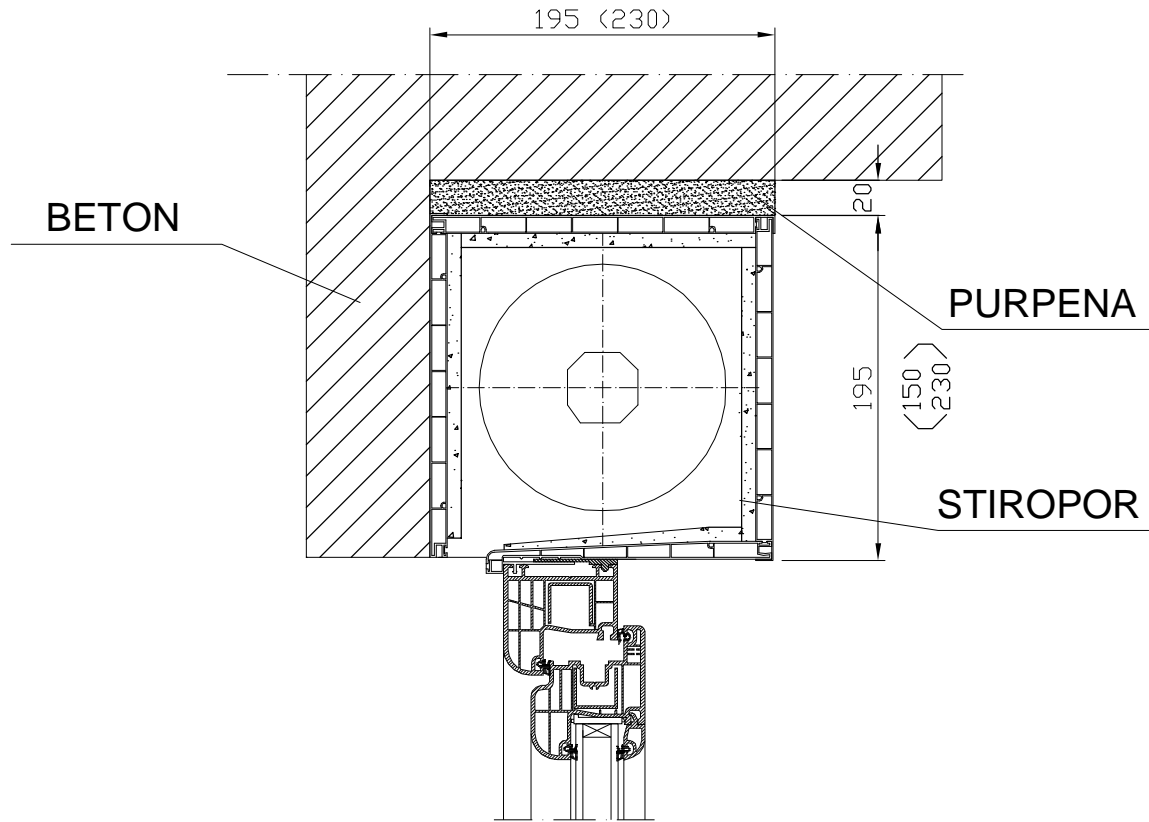




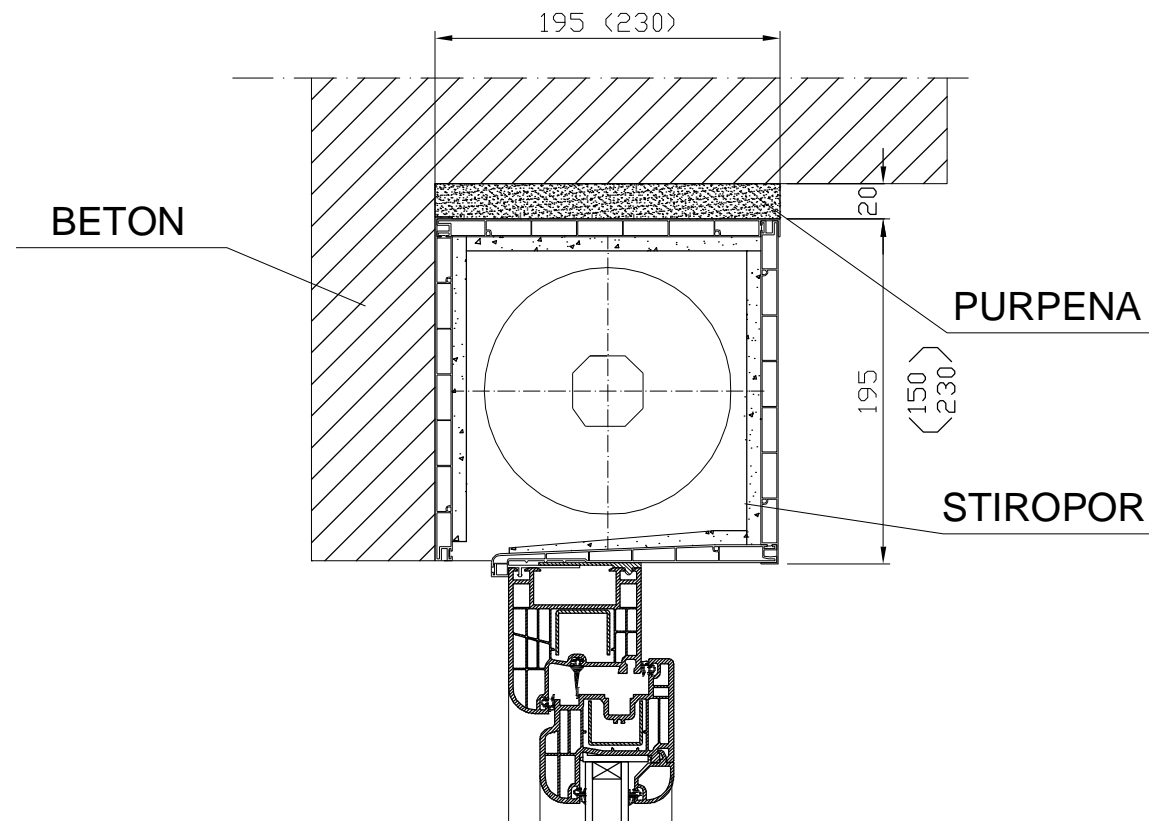
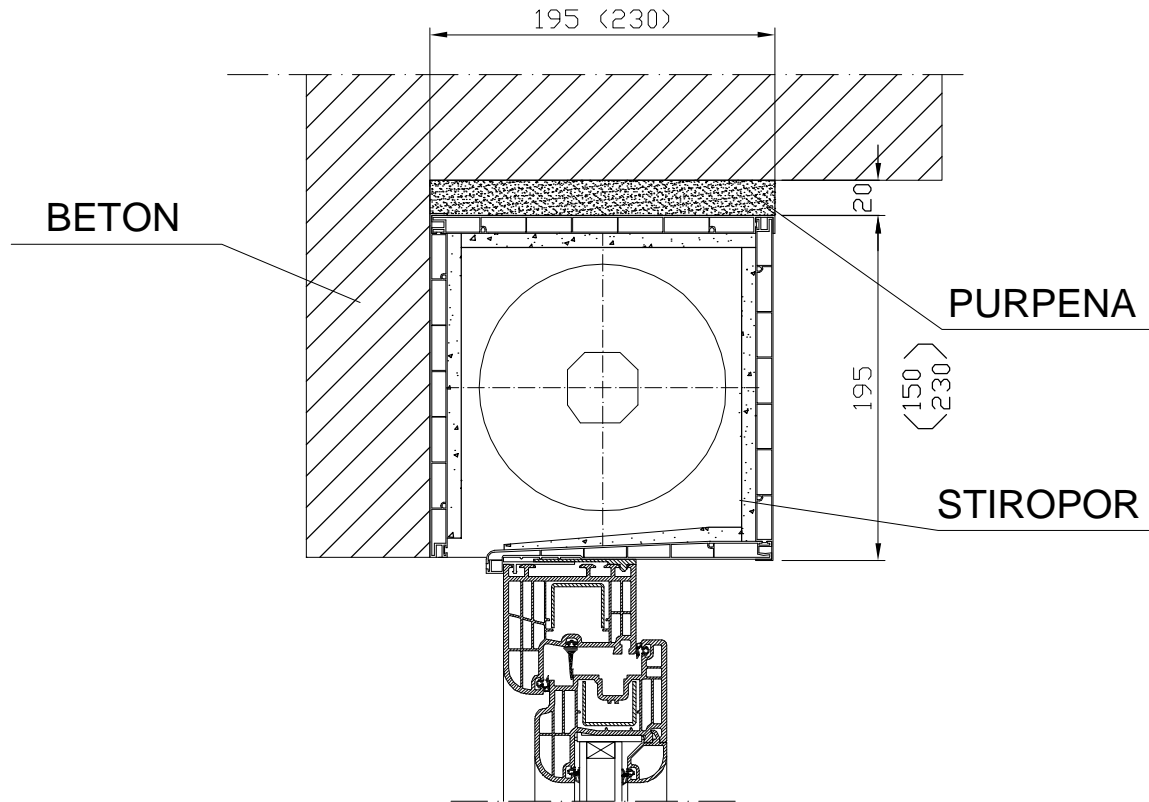
# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU SA SPOLJAŠNIM ZUBOM SISTEM 400



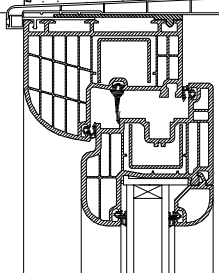
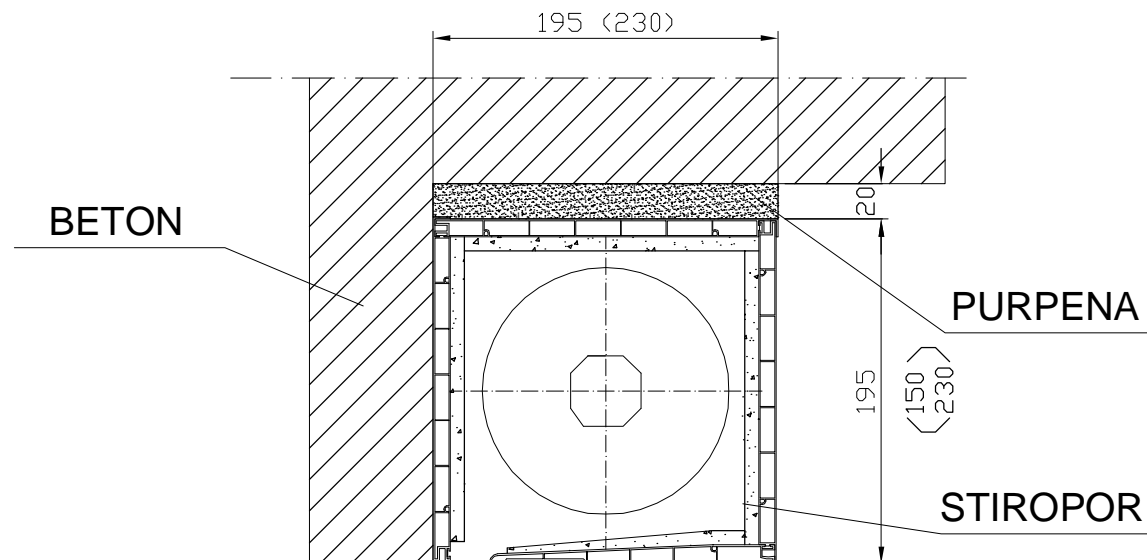
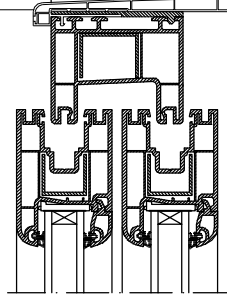
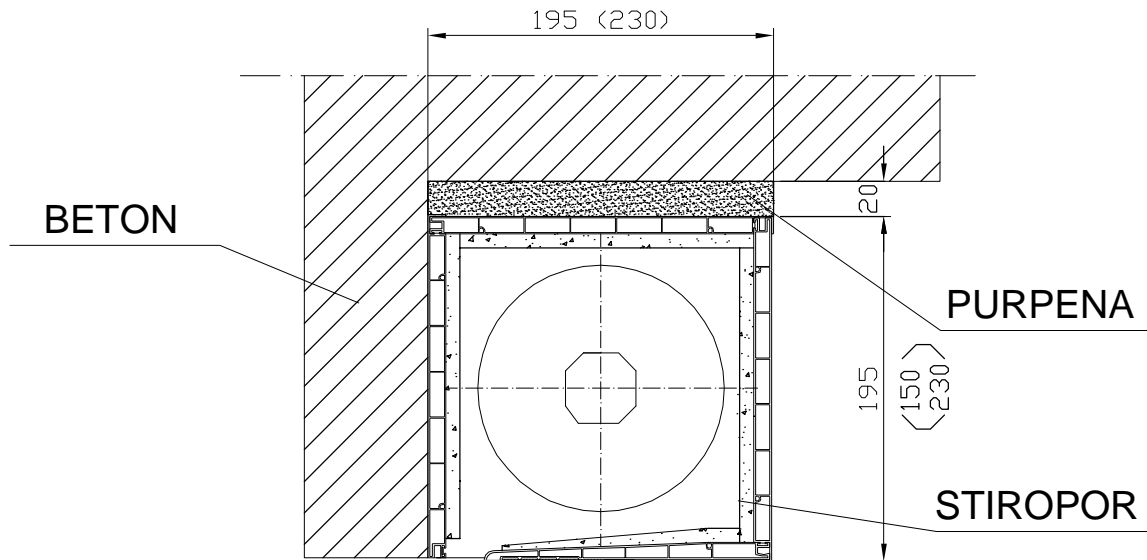
# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU SA SPOLJAŠNIM ZUBOM SISTEM 500



# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU SA SPOLJAŠNIM ZUBOM SISTEM 600



# UGRADNJA PROZORA SA PVC KUTIJOM ZA ROLETNU SA SPOLJAŠNJIM ZUBOM SISTEM 800



## 10. OKOVI

Okovi su elementi koji omogućavaju pravilno funkcionisanje prozora. Za smanjenje toplotnih gubitaka i dobitaka putem propuštanja kroz vezu krilo – krilo i krilo – ram, kada je prozor zatvoren okovi trebaju osigurati njihovo dobro naleganje i čvrsti spoj.

Prozor kao gotov proizvod sastoji se od niza elemenata koji međusobno moraju biti usklađeni. Gubitak toplote se ostvaruje na vezi ram–zid, krilo–krilo i ram–krilo. Greške su uzrok čovečijeg delovanja, loše proizvedenog i loše ugrađenog prozora.

Okov čine mehanički elementi koji upravljaju otvaranjem i zatvaranjem. Okov na prozorima spaja krilo i okvir. Jednostavni su za upotrebu. Elementi koji čine okov su skriveni, polu–skriveni i vidljivi, i razlikuju se po bojama i sigurnosnim karakteristikama. Treba se zaštititi od provale, zaštititi decu kao i obezbediti da pri zatvaranju okov izvrši pritisak na zaptivač, te štiti od vetra i kiše.

Jednostavno i lako rukovanje, kao i različite mogućnosti otvaranja važni su aspekti, i po pravilu svi proizvođači okova razmatraju sve pojedinosti vezane za sigurnost, funkcionalnost i udobnost življenja. Za odgovarajuće vrste otvaranja i zatvaranja ugrađuju se različiti okovi. Oni zavise od veličine i težine krila i sigurnosti koju će prozor i okovi dati.

Prema veličini prozora važan je broj tačaka zatvaranja, a naročito kod vrata. Najveći efekat zatvaranja (zaključavanja) postiže se velikim brojem prihvatnika. Oni obezbeđuju i odgovarajuće zaptivanje "prostora" između rama i krila prozora za vreme nepogoda. U razvijenim zemljama stručnjaci se posebno bave izradom sigurnosnih vrata i vrata u slučaju požara, kako bi sistem funkcionisao ispravno.

Elementi okova:

- Pogonski mehanizam okova je deo koji se pokreće okretanjem ručice. Pokretanjem klizača prozor se otvara/zatvara.
- Ugaonik je deo na kojem se nalazi tačka zaokreta i na tom mestu se istovremeno koncentriše težina krila. Osnovni mu je zadatak prenos kretanja.
- Makaze su element koji spaja ram i krilo u slučaju delimičnog naginjanja prozora (kipovanje). Pričvršćeni su na gornjem delu krila. Zajedno sa ugaonikom obezbeđuje okretanje oko vertikalne ose kao i delimično naginjanje oko horizontalne ose tzv. kipovanje.
- Prihvatnik je deo koji se ugrađuje u ram i u njega naležu klizači. Što ih je više, osiguravaju bolje zatvaranje tj. zaključavanje (izuzetno je važno kod ulaznih vrata).

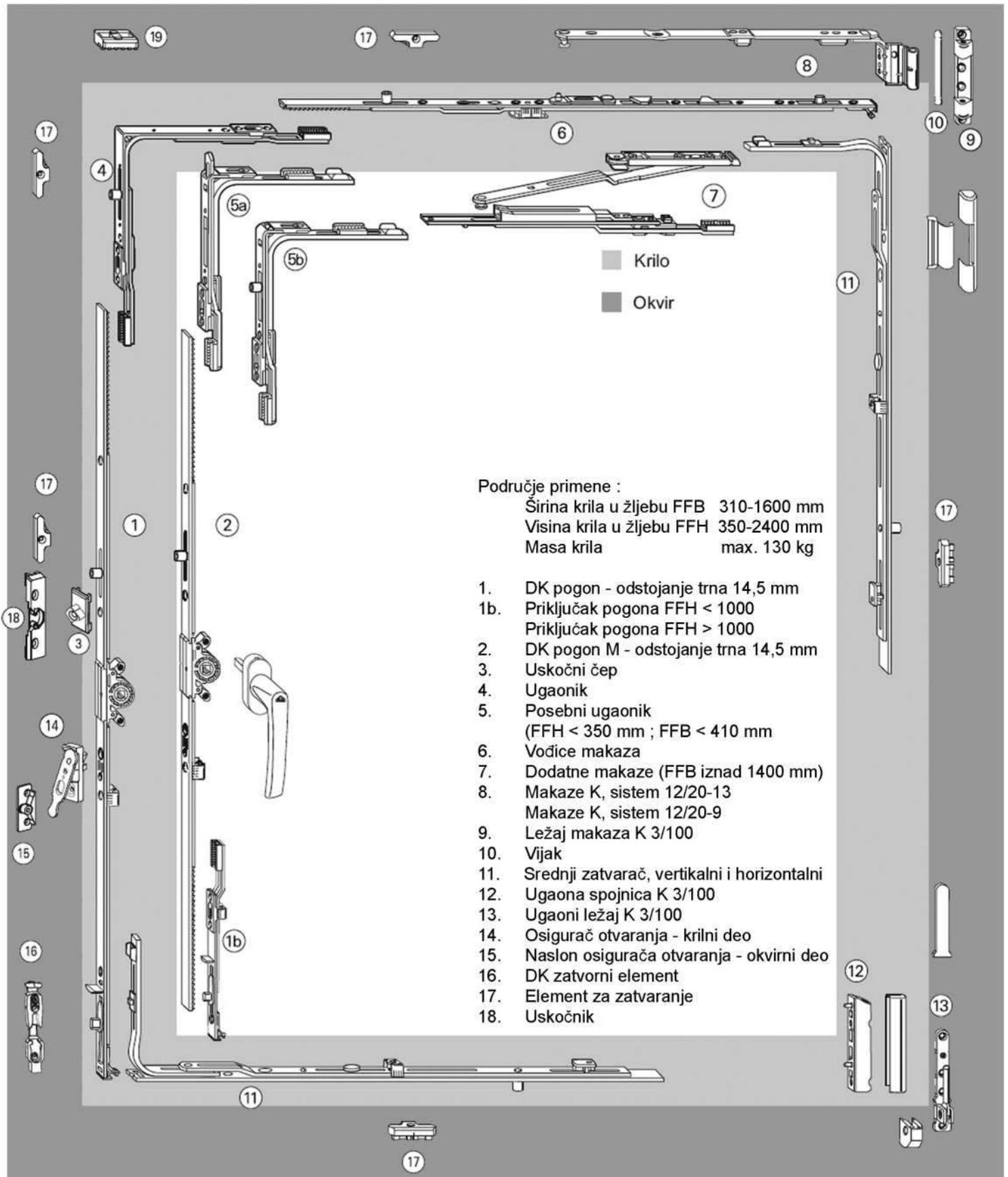
Metalni okovi su izrađeni po visokim evropskim standardima i imaju mogućnost da sa jednim okretom ručice fiksiraju krilo u više tačaka. Delovi okova izrađeni su od visoko kvalitetnog čelika, legure aluminjuma i legure cinka. Zavisno od korištenog materijala okovi su pocinčani i žuto hromirani odnosno eloksirani.

Otklopno–zaokretni, zaokretni i otklopni okov (kipovanje) primenjiv je na različite sisteme PVC profila upotrebom posebnih otklopnih pločica i podloga.

Područja primene okova su:

- jednokrillni prozori i vrata
- jednokrillna vrata sa zaključavanjem
- dvokrillna vrata sa zaključavanjem
- polukružni prozori
- kosi prozori i vrata
- klizna vrata

# OKRETNO NAGIBNI OKOV



Kriilo  
 Okvir

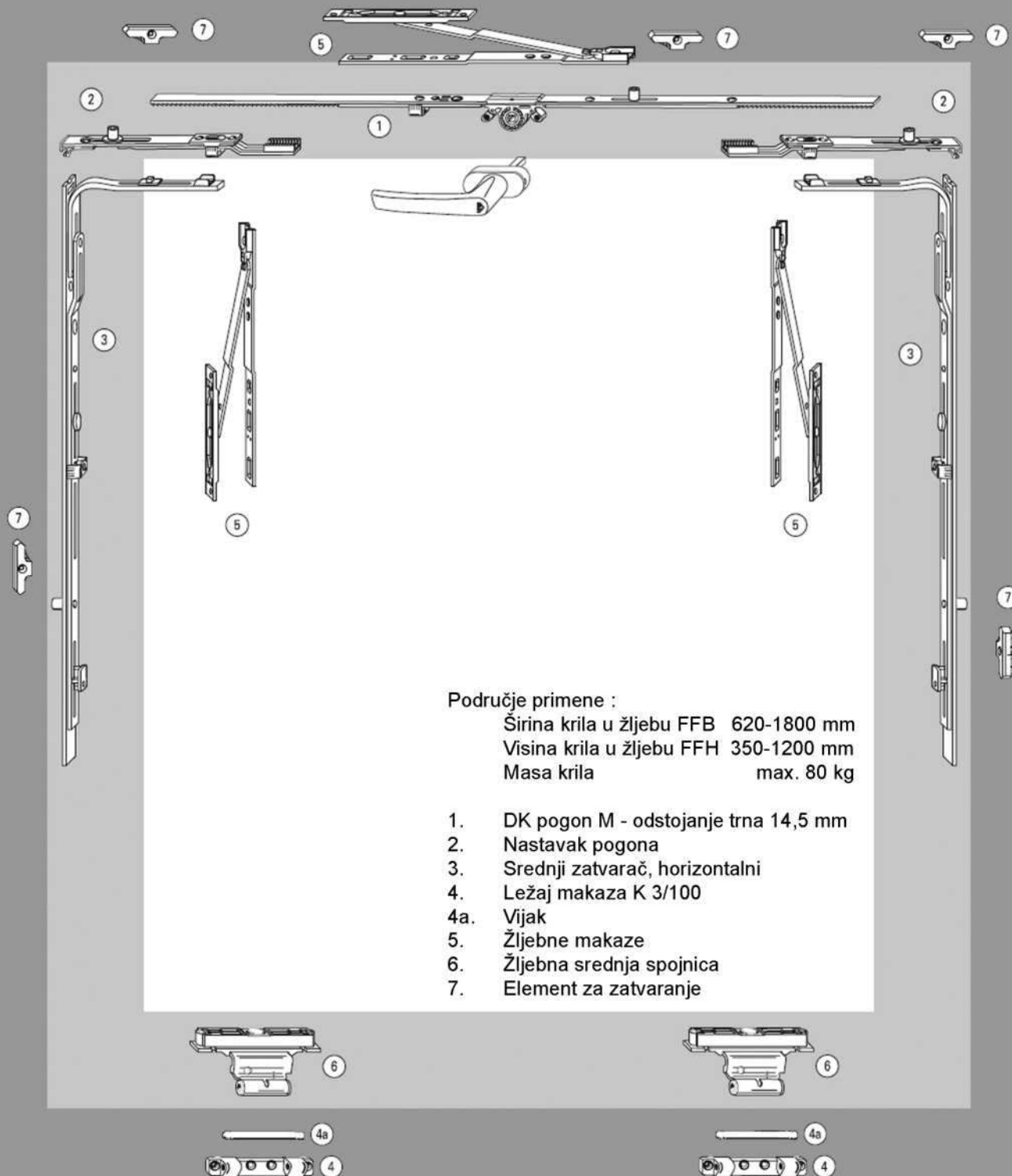
**Područje primene :**

Širina krila u žljebu FFH 310-1600 mm  
 Visina krila u žljebu FFH 350-2400 mm  
 Masa krila max. 130 kg

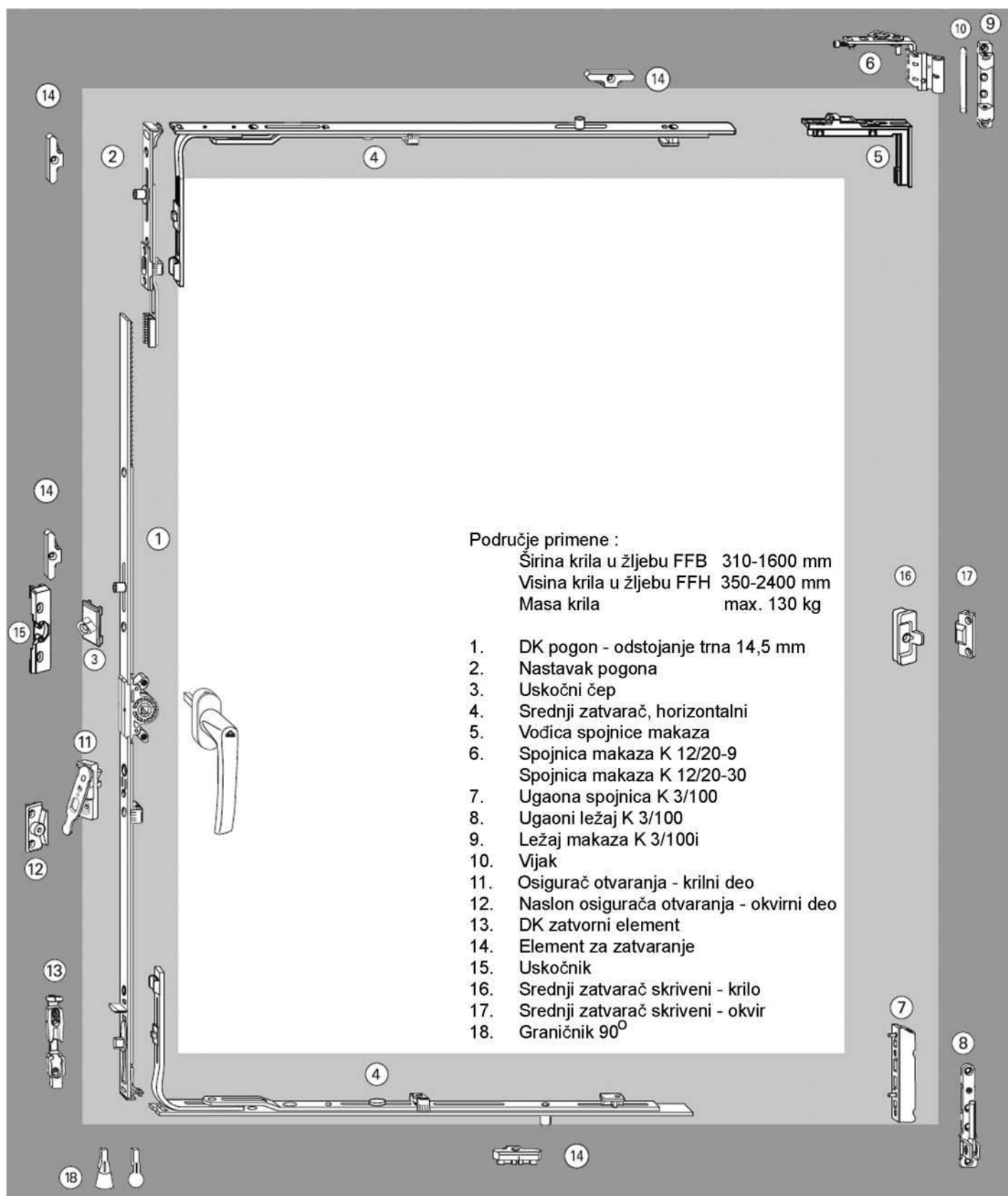
1. DK pogon - odstojanje trna 14,5 mm
- 1b. Priključak pogona FFH < 1000  
Priključak pogona FFH > 1000
2. DK pogon M - odstojanje trna 14,5 mm
3. Uskočni čep
4. Ugaonik
5. Posebni ugaonik  
(FFH < 350 mm ; FFH < 410 mm)
6. Vođice makaza
7. Dodatne makaze (FFH iznad 1400 mm)
8. Makaze K, sistem 12/20-13  
Makaze K, sistem 12/20-9
9. Ležaj makaza K 3/100
10. Vijak
11. Srednji zatvarač, vertikalni i horizontalni
12. Ugaona spojnica K 3/100
13. Ugaoni ležaj K 3/100
14. Osigurač otvaranja - krilni deo
15. Naslon osigurača otvaranja - okvirni deo
16. DK zatvorni element
17. Element za zatvaranje
18. Uskočnik



# NAGIBNI OKOV



# OKRETNI OKOV

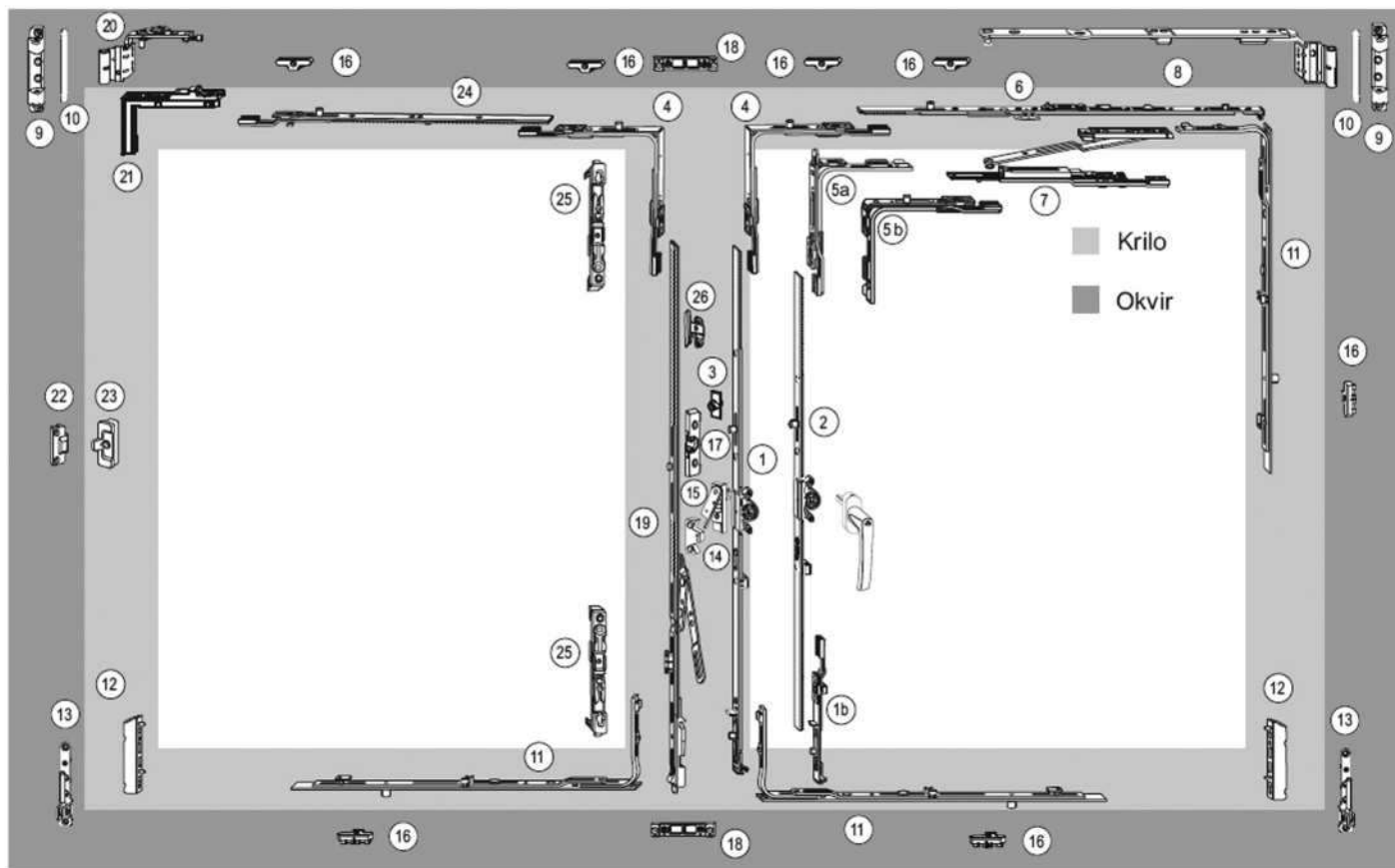


## Područje primene :

Širina krila u žljebu FFH 310-1600 mm  
Visina krila u žljebu FFH 350-2400 mm  
Masa krila max. 130 kg

1. DK pogon - odstojanje trna 14,5 mm
2. Nastavak pogona
3. Uskočni čep
4. Srednji zatvarač, horizontalni
5. Vođica spojnice makaza
6. Spojnica makaza K 12/20-9  
Spojnica makaza K 12/20-30
7. Ugaona spojnica K 3/100
8. Ugaoni ležaj K 3/100
9. Ležaj makaza K 3/100i
10. Vijak
11. Osigurač otvaranja - krilni deo
12. Naslon osigurača otvaranja - okvirni deo
13. DK zatvorni element
14. Element za zatvaranje
15. Uskočnik
16. Srednji zatvarač skriveni - krilo
17. Srednji zatvarač skriveni - okvir
18. Graničnik 90°

# DVOKRILNI PROZOR PREGLED OKOVA

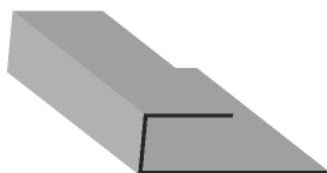


## Područje primene :

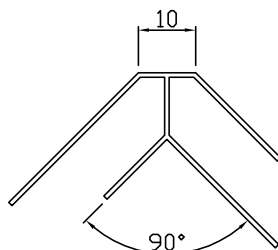
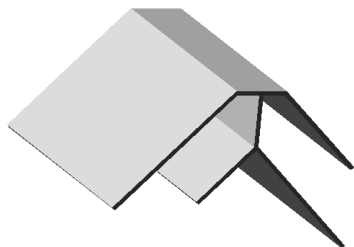
Širina krila u žljebu FFH 310-1600 mm  
 Visina krila u žljebu FFH 350-2400 mm  
 Masa krila max. 130 kg

- |     |  |     |  |
|-----|--|-----|--|
| 1.  | DK pogon - spojni, odstojanje trna 14,5 mm                   | 16. | Element za zatvaranje  |
| 1b. | Priključak pogona FFH < 1000<br>Priključak pogona FFH > 1000 | 17. | Uskočnik   |
| 2.  | DK pogon M - odstojanje trna 14,5 mm                         | 18. | Upadnica za dvokrilni prozor   |
| 3.  | Uskočni čep  | 19. | Čeoni pogon, konstantna visina ručke   |
| 4.  | Ugaonik  | 20. | Spojnicica makaza K 12/29-9 L<br>Spojnicica makaza K 12/29-9 R<br>Spojnicica makaza K 12/29-13 L<br>Spojnicica makaza K 12/29-13 R |
| 5.  | Posebni ugaonik<br>(FFH < 350 mm ; FFB < 410 mm)             | 21. | Vodica spojnicice makaza   |
| 6.  | Vođice makaza  | 22. | Srednji zatvarač skriveni - okvirni deo  |
| 7.  | Dodatne makaze (FFB iznad 1400 mm)                           | 23. | Srednji zatvarač skriveni - krilni deo   |
| 8.  | Makaze K, sistem 12/20-13<br>Makaze K, sistem 12/20-9        | 24. | Produžetak pogona  |
| 9.  | Ležaj makaza K 3/100   | 25. | Rubni zasun  |
| 10. | Vijak  | 26. | Element za zatvaranje za čeoni pogon   |
| 11. | Srednji zatvarač, vertikalni i horizontalni                  |     |  |
| 12. | Ugaona spojnicica K 3/100                                    |     |  |
| 13. | Ugaoni ležaj K 3/100   |     |  |
| 14. | Osigurač otvaranja - krilni deo                              |     |  |
| 15. | Naslona osigurača otvaranja - okvirni deo                    |     |  |

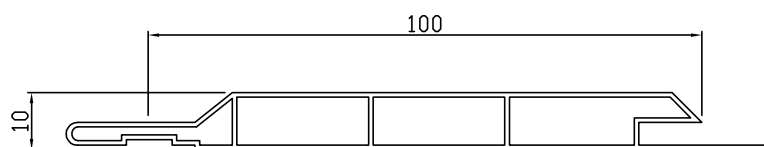
## 11. Pomoćni profili, lamperija, garniše



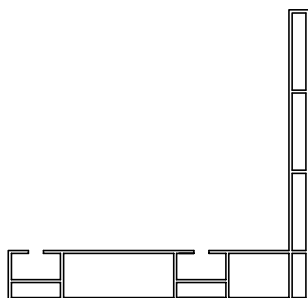
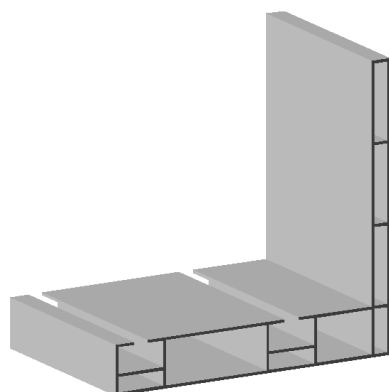
PVC završna lajsna za lamperiju.



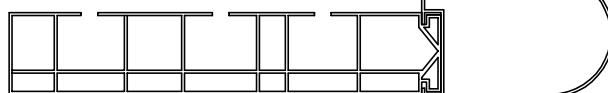
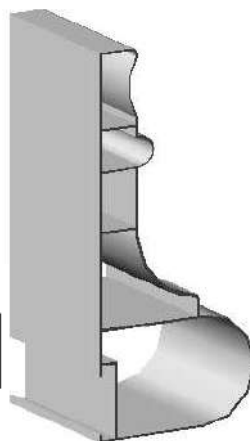
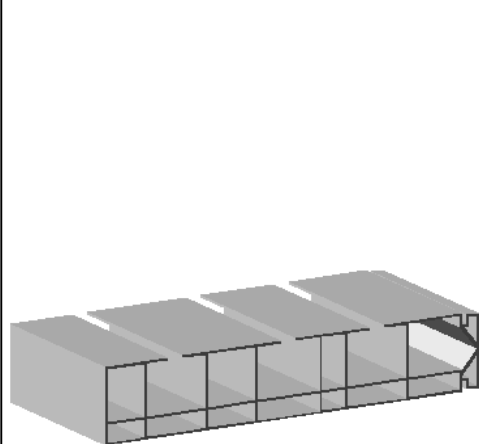
PVC ugaona lajsna za lamperiju.



PVC lajsna za lamperiju.



PVC dvokanalna "L" garnišla za zavese.



PVC trokanalna ukrasna garnišla za zavese.

## 12. ROLETNE

Roletne za prozore, vrata i terase napravljene su od aluminijumskih i PVC vođica sa četkicom i vođica od dekapiranih limova.

Metalni delovi su plastificirani u raznim bojama po Ral karti.

Zastori za roletne napravljeni su od aluminijumskih limova punjenih poliuretanskom penom i od tvrdog PVC-a.

Kutije za smeštaj zastora izrađuju se od tvrdog PVC-a, aluminijumskih i pocinkovanih limova sa i bez termoizolacije. Mogu se plastificirati u više boja po Ral karti.

Rolo vrata za garaže, hale, radionice, lokale, poslovne prostorije većih širina i visina. Napravljena su od aluminijumskih delova, zastor se puni poliuretanskom penom.

Kutija za smeštaj zastora se pravi od aluminijumskog i pocinkovanog lima, plastificiranog po Ral karti.

Rukovanje rolo vratima može biti pomoću oprugu, reduktor ili automatski pomoću elektromotora sa daljinskim upravljačem.

### D I M E N Z I J E K U T I J A

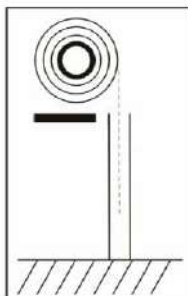
	120	137	140	150	160	165	170	180	200	205	220	250	300	350	400
<b>AL 39</b>	1300	1500	1650	1850	2200	2200	2450	2900	3550	3700	4600	6600			
<b>AL 43</b>	1100	1100	1125	1500	1800	1800	2150	2400	2900	2900	3600	5000			
<b>AL 55</b>								1200	1600	1600	2000	2700	4050		
<b>AL 77</b>								900	1200	1200	1600	2050	3100	4100	5700
<b>PVC 34</b>	1000	1200	1250	1350	1800	1850	2100	2350	2850	2900	3350	4100	5800		
<b>PVC 37</b>	1300	1550	1700	2100	2300	2300	2600	2900	3650	3950	3950	4500			
<b>PVC 40</b>	1300	1500	1650	1850	2200	2200	2450	2900	3550	3700	4600	6600			
<b>PVC 50</b>	1000	1200	1250	1350	1800	1850	2100	2350	2850	2900	3350	4100	5800		
<b>PVC 55</b>								1200	1600	1600	2000	2700	4050		

VISINA ZASTORA

Na veličinu stranice treba obratiti pažnju kod roletni kada je komarnik u istoj kutiji i kod rolo vrata kada idu blokatori ili adapteri za povećanje prečnika fi osovine.

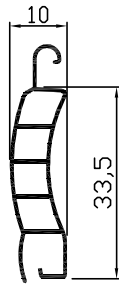
Kod PVC i termo kutije merodavna je unutrašnja dimenzija.

U svim ovim uslovima treba stranicu povećati za određeni broj.

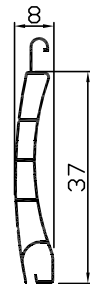


Vratilo D (mm)	Lamela Al (mm)	Lamela PVC (mm)
40	37,39,43	34,37,40,50
60	55,77	50,55
70	77	

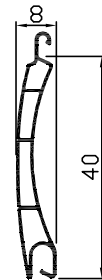
# Delovi za roletne



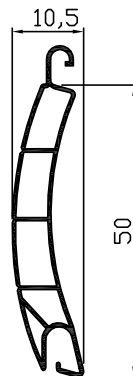
PVC letvica za roletne.  
 Dimenzije: 33,5 x 10 mm  
 Visina od 1m = 30 letvica



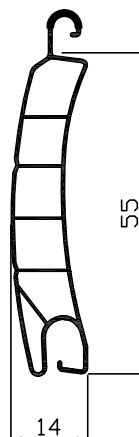
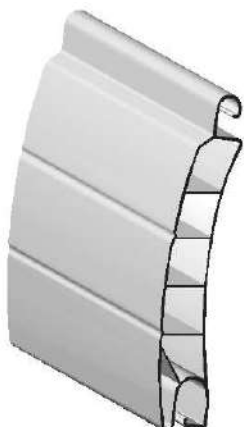
PVC letvica za roletne.  
 Dimenzije: 37 x 8 mm  
 Visina od 1m = 27 letvica



PVC letvica za roletne.  
 Dimenzije: 40 x 8 mm  
 Visina od 1m = 25,6 letvica

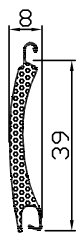


PVC letvica za roletne.  
 Dimenzije: 50 x 10,5 mm  
 Visina od 1m = 20 letvica



PVC letvica za roletne.  
 Dimenzije: 55 x 14 mm  
 Visina od 1m = 18,2 letvica

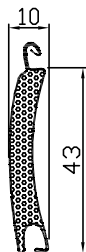
# Delovi za roletne



Aluminijumska letvica za roletne. Punjena poliuretanskom penom.

Dimenzije: 39 x 8 mm

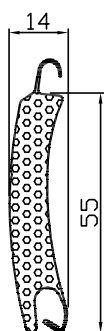
Visina od 1m = 25,6 letvice



Aluminijumska letvica za roletne. Punjena poliuretanskom penom.

Dimenzije: 43 x 10 mm

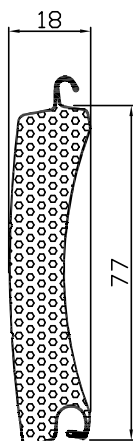
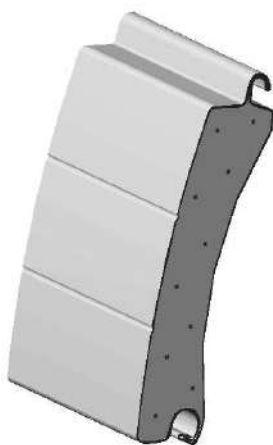
Visina od 1m = 23 letvice



Aluminijumska letvica za roletne. Punjena poliuretanskom penom.

Dimenzije: 55 x 14 mm

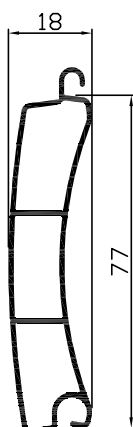
Visina od 1m = 18 letvice



Aluminijumska letvica za garažna vrata. Punjena poliuretanskom penom.

Dimenzije: 77 x 18 mm

Visina od 1m = 13 letvice



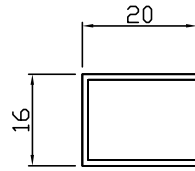
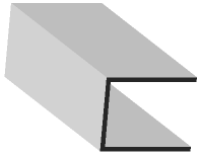
Aluminijumska letvica za garažna vrata, ekstrudirana.

Dimenzije: 77 x 18 mm

Visina od 1m = 13 letvice

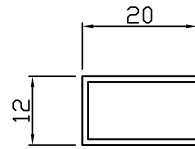
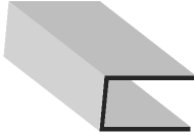


# Delovi za roletne



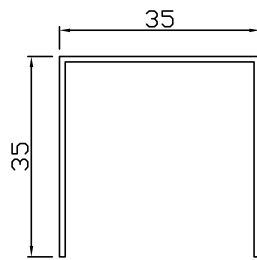
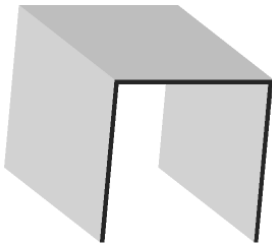
Maxi vođica za roletne od dekapiranog lima.

Dimenzije: 16 x 20 mm



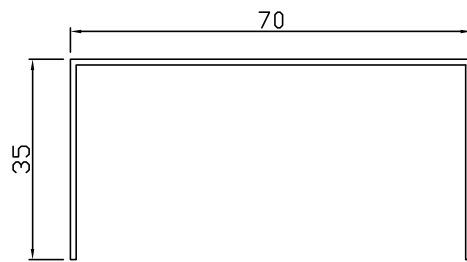
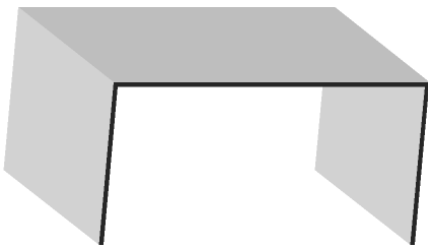
Mini vođica za roletne od dekapiranog lima.

Dimenzije: 12 x 20 mm



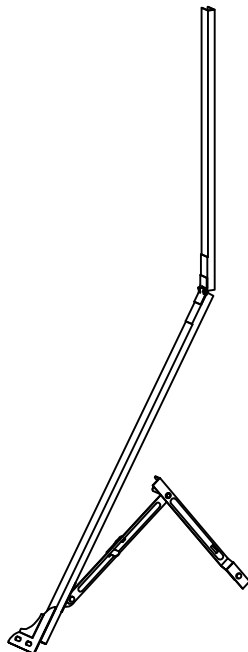
Stub za roletne od dekapiranog lima.

Dimenzije: 35 x 35 mm

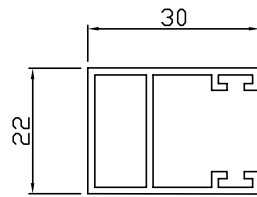
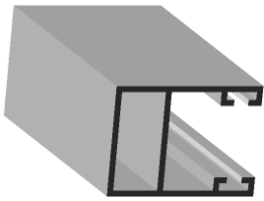


Stub za roletne od dekapiranog lima.

Dimenzije: 35 x 70 mm

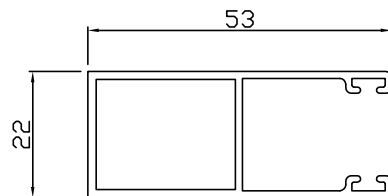
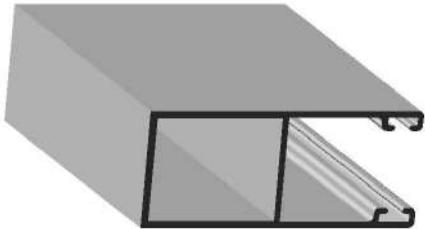


Makaze za roletne od dekapiranog lima.



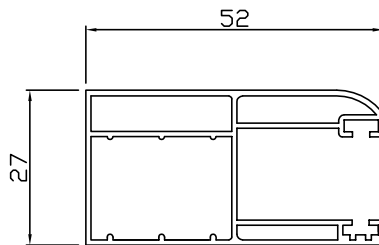
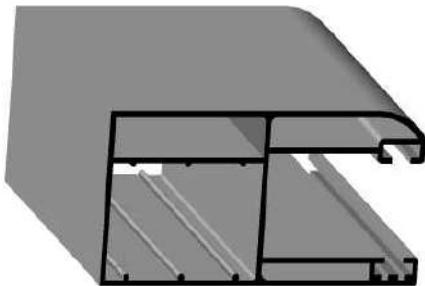
PVC vođica za roletne bez stuba.

Dimenzije: 22 x 30 mm



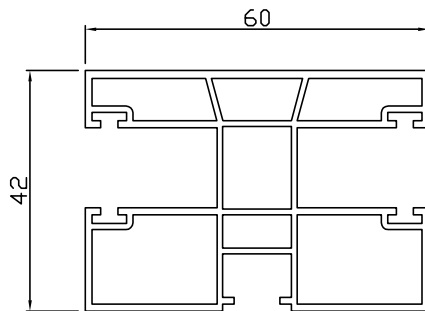
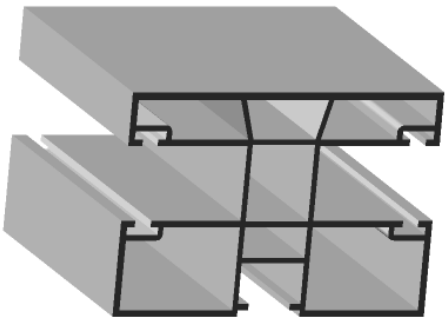
PVC vođica za roletne sa stubom.

Dimenzije: 22 x 53 mm



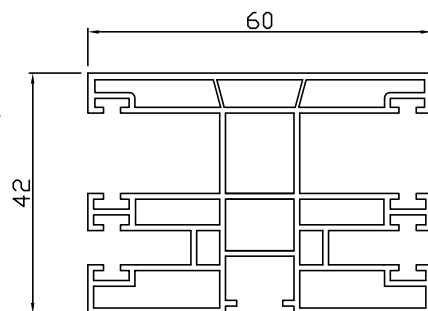
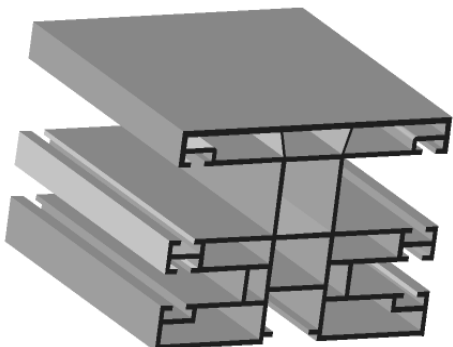
PVC vođica za roletne sa stubom zaobljena.

Dimenzije: 27 x 52 mm



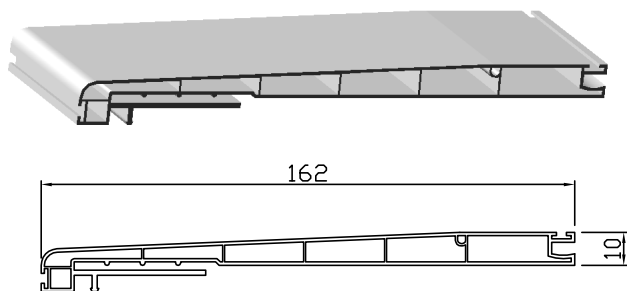
PVC vođica za roletne dupla.

Dimenzije: 42 x 60 mm

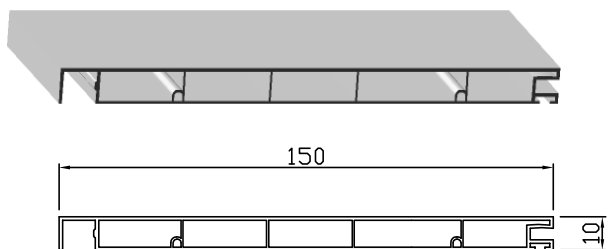


PVC vođica za roletne i komarnik dupla.

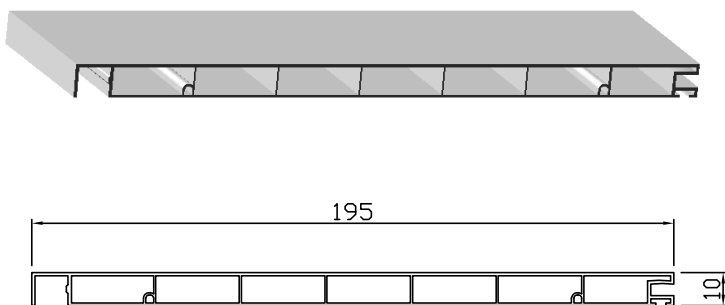
Dimenzije: 42 x 60 mm



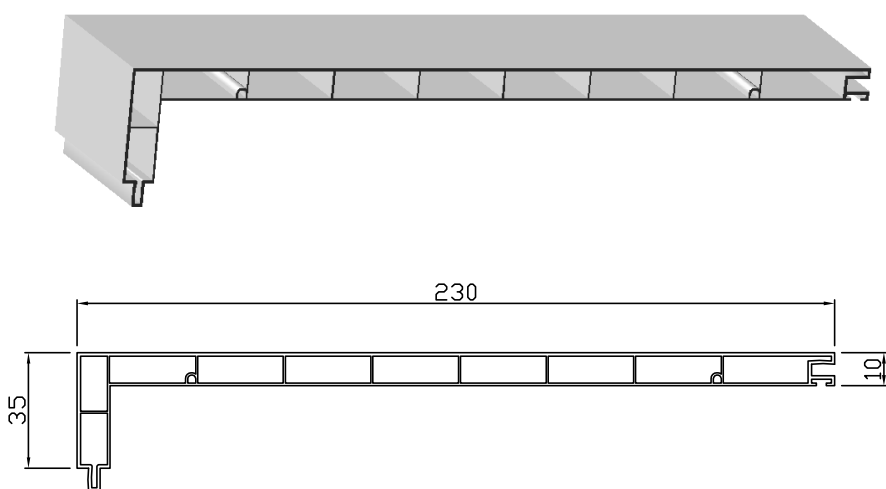
Donji element za PVC kutije  
 Dimenzija: 195 x 195 mm  
 dimenzija: 230 x 230 mm



Bočni element za PVC kutiju  
 Dimenzija: 195 x 150 mm



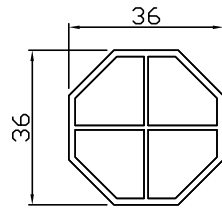
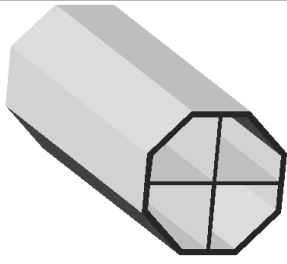
Bočni i gornji element za PVC kutiju  
 Dimenzija: 195 x 195 mm  
 Gornji element za PVC kutiju  
 Dimenzija: 230 x 230 mm



Bočni element za PVC kutiju  
 Dimenzija: 230 x 230 mm

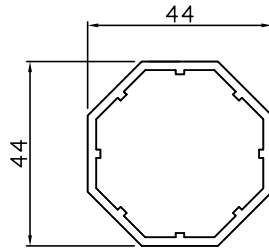
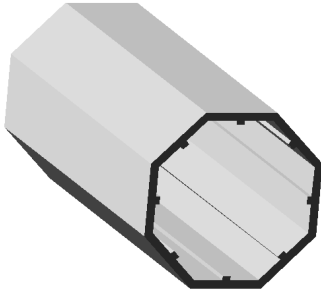


Dodatak za spajanje PVC kutije i  
 PVC prozora i vrata.



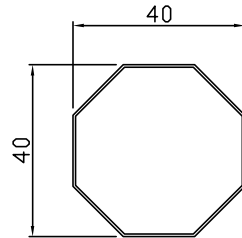
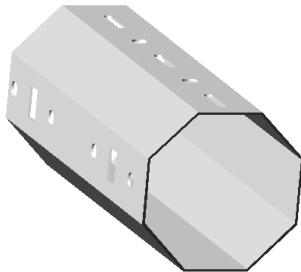
PVC osovina za roletne.

Dimenzije:  $\text{\AA}$  36 mm



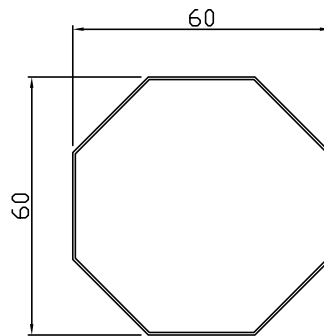
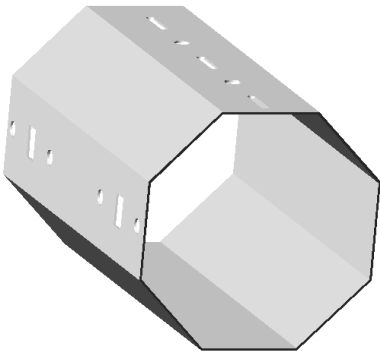
PVC osovina za roletne.

Dimenzije:  $\text{\AA}$  44 mm



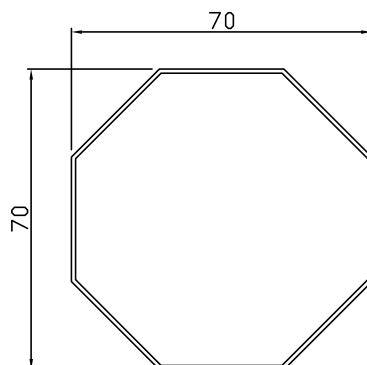
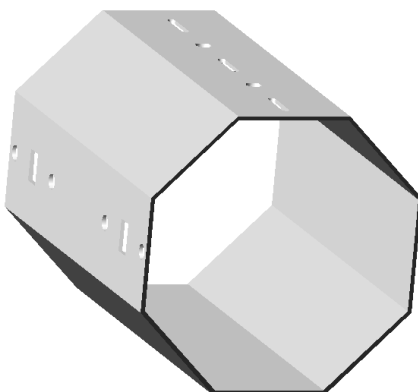
Metalna pocinkovana osovina za roletne.

Dimenzije:  $\text{\AA}$  40 mm



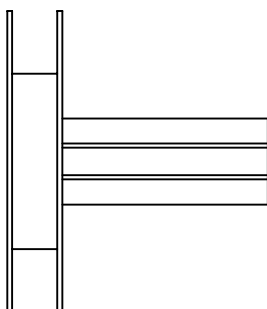
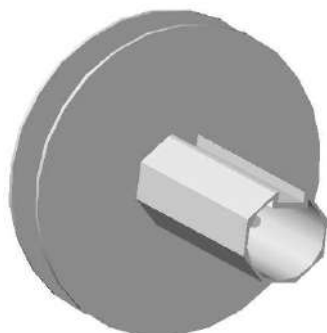
Metalna pocinkovana osovina za roletne i rolo garažna vrata.

Dimenzije:  $\text{\AA}$  60 mm



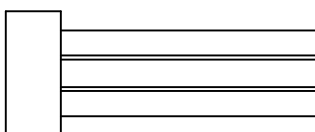
Metalna pocinkovana osovina za roletne i rolo garažna vrata

Dimenzije:  $\text{\AA}$  70 mm



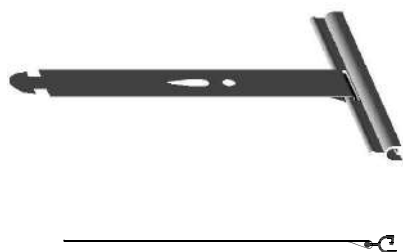
PVC točak, doboš za namotavanje rolo trake sa kućištem za kuglični ležaj Ø 28 mm.

Dimenzije: Ø 40 mm i Ø 60 mm



PVC završetak na osovina  $\text{Ø} 40$ ,  $\text{Ø} 60$ ,  $\text{Ø} 70$  mm, sa kućištem za kuglični ležaj  $\text{R} 28$  mm.

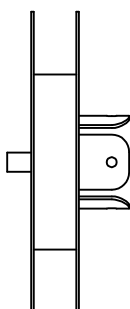
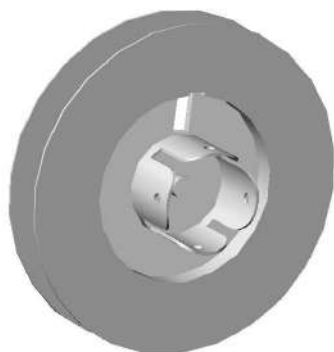
Dimenzije: Ø 40 mm i Ø 60 mm



Zakačka letvica za osovinu.

Za PVC i Al letvice:

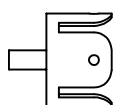
33,5	39
37	43
39	55
50	77
51	



Točak od dekapiranog lima, doboš za namotavanje rolo trake.

Dimenzije:

- Ø 36 mm mini
- Ø 36 mm (bočno vođenje) mini
- Ø 40 mm mini
- Ø 45 mm maxi
- Ø 45 mm (bočno vođenje) maxi
- Ø 60 mm maxi

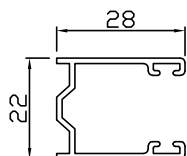
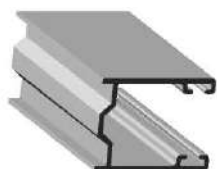


Završetak od dekapiranog lima za PVC i metalne osovine.

Dimenzije:

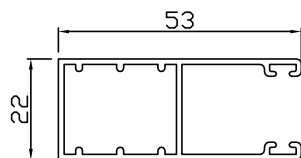
- Ø 36 mm mini
- Ø 36 mm (bočno vođenje) mini
- Ø 40 mm mini
- Ø 45 mm maxi
- Ø 45 mm (bočno vođenje) maxi
- Ø 60 mm maxi

# Delovi za roletne



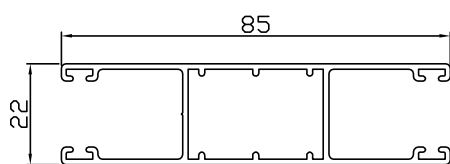
Aluminijumska mini vodica za roletne bez stuba.

Dimenzije: 22 x 28 mm



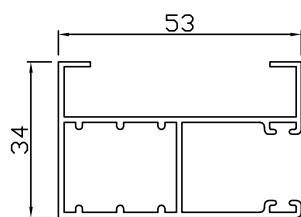
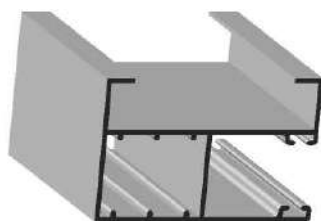
Aluminijumska mini vodica za roletne sa stubom.

Dimenzije: 22 x 53 mm



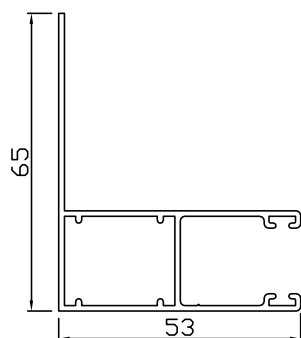
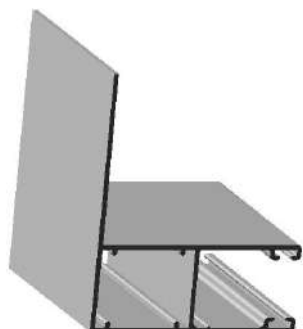
Aluminijumska srednja dvokanalna mini vodica za roletne sa stubom.

Dimenzije: 22 x 85 mm



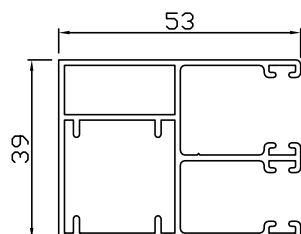
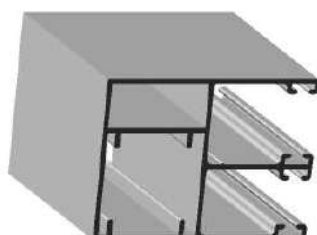
Aluminijumska mini vodica za roletne sa stubom i odstojsnikom za okapnicu.

Dimenzije: 34 x 53 mm



Aluminijumska mini vodica za roletne sa stubom i perom za komarnik.

Dimenzije: 22(65) x 53 mm

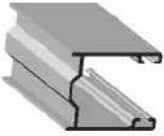
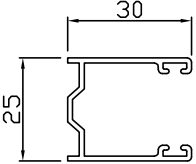
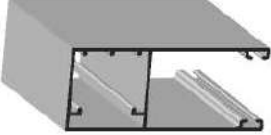
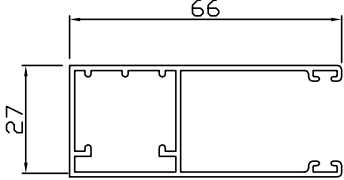

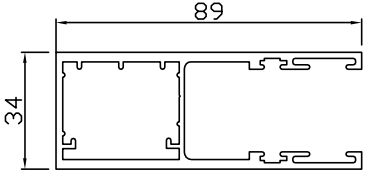

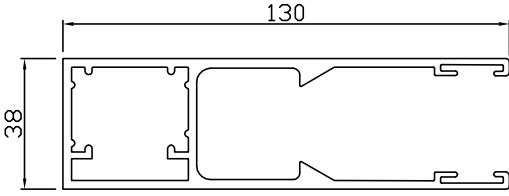

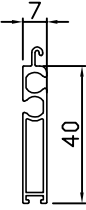

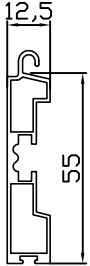




Aluminijumska dupla mini vodica za roletne i komarnik sa stubom.

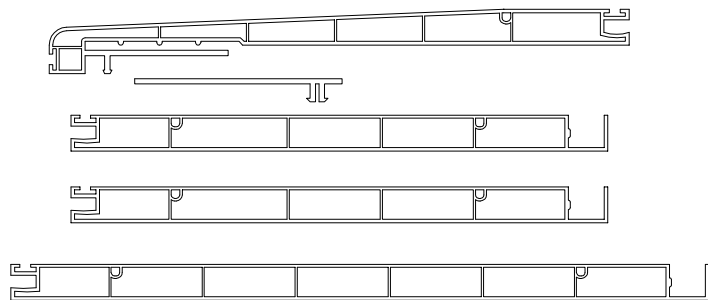
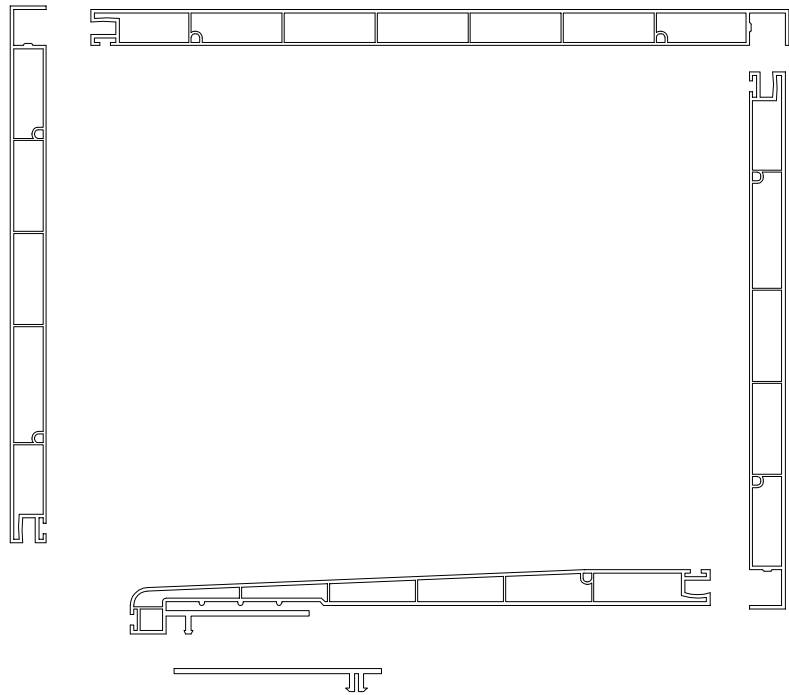
Dimenzije: 39 x 53 mm

# Delovi za roletne



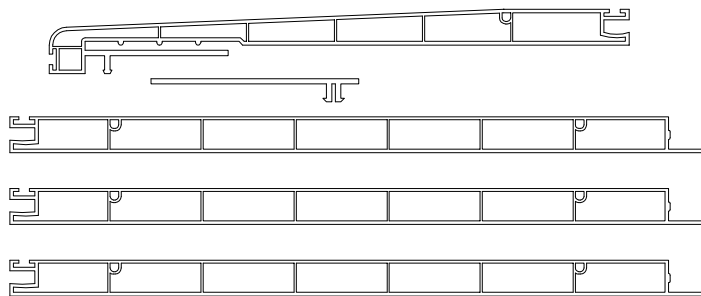
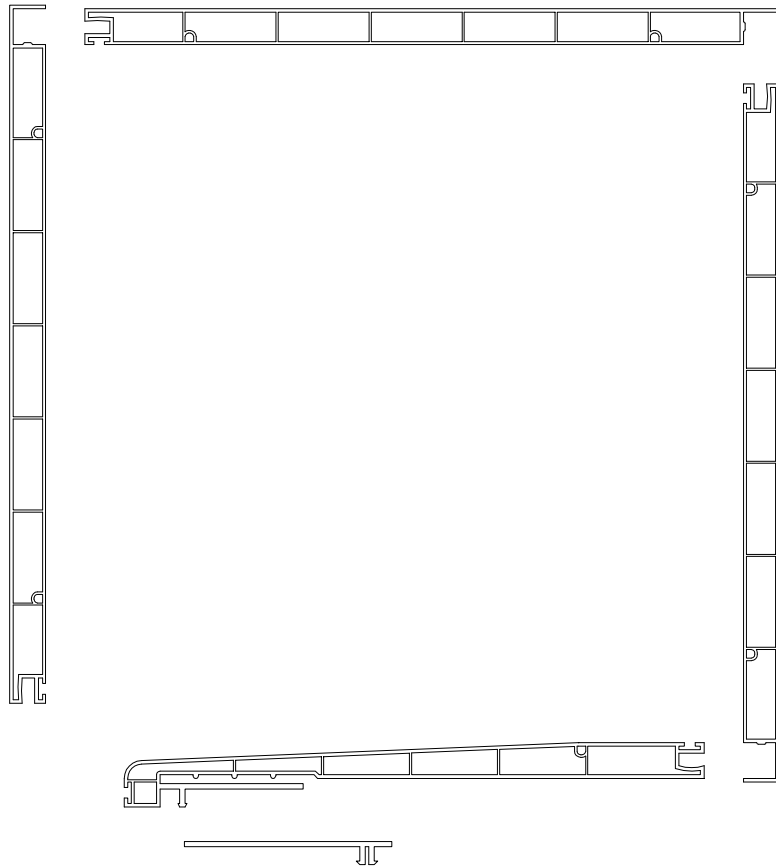
 	<p>Aluminijumska maxi vođica za roletne bez stuba.</p> <p>Dimenzije: 25 x 30 mm</p>
 	<p>Aluminijumska maxi vođica za roletne sa stubom.</p> <p>Dimenzije: 27 x 66 mm</p>
 	<p>Aluminijumska vođica za rolo garažna vrata sa stubom.</p> <p>Dimenzije: 34 x 89 mm</p>
 	<p>Aluminijumska vođica za rolo garažna vrata sa stubom.</p> <p>Dimenzije: 38 x 130 mm</p>
 	<p>Aluminijumska lajsna za zaključavanje roletni za spoljašnju i unutrašnju kutiju.</p> <p>Dimenzije: 40 x 7 mm</p>
 	<p>Aluminijumska lajsna za zaključavanje roletni za spoljašnju i unutrašnju kutiju.</p> <p>Dimenzije: 55 x 12,5 mm</p>
 	<p>Aluminijumska lajsna za zaključavanje garažnih vrata.</p> <p>Dimenzije: 77 x 18 mm</p>

Elementi PVC kutije 195 x 150 sa  
prikazom načina pakovanja

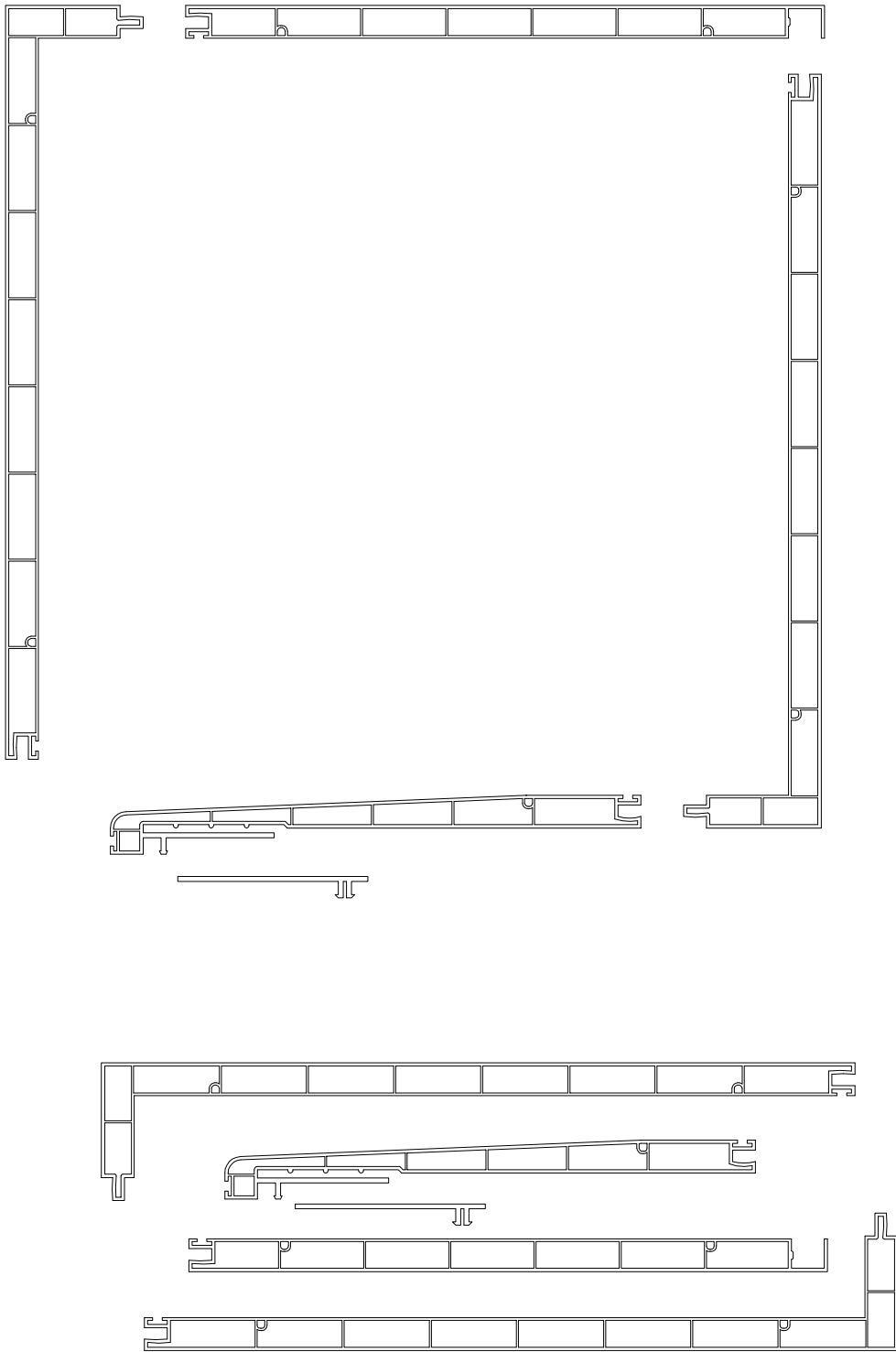



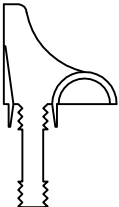

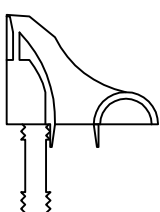

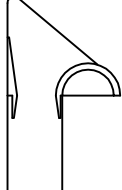

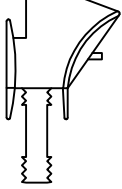

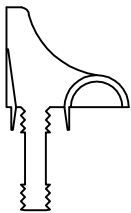
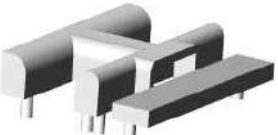
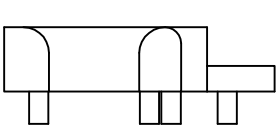

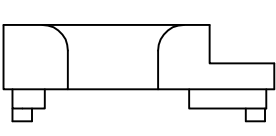

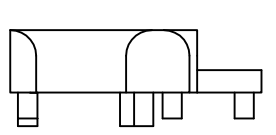
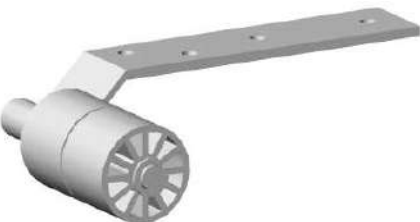



Elementi PVC kutije 195 x 195 sa  
prikazom načina pakovanja



Elementi PVC kutije 230 x 230 sa  
prikazom načina pakovanja

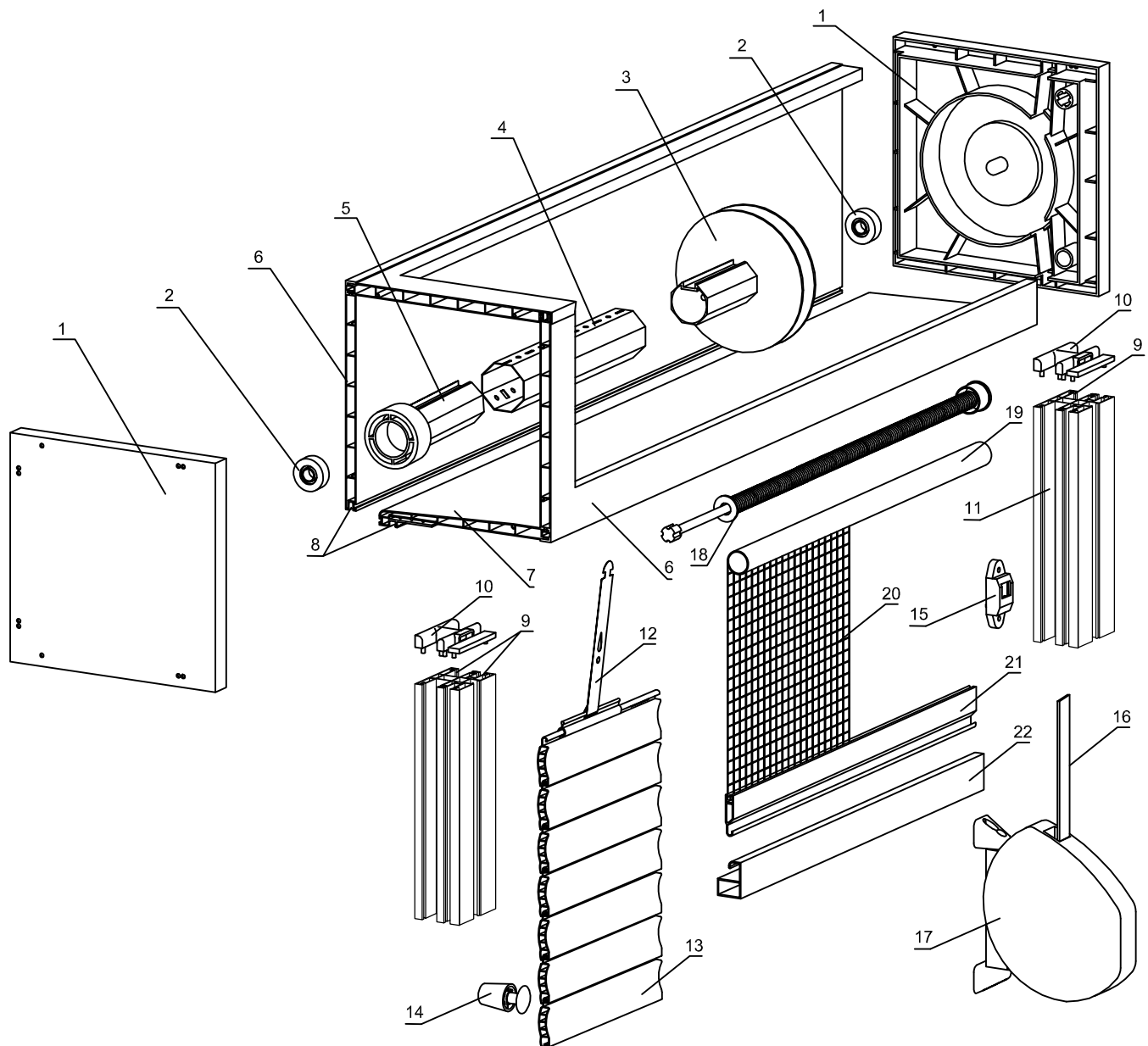


		<p>PVC uvodnik za roletne 39 i 43</p>
		<p>PVC uvodnik za roletne sa komarnikom</p>
		<p>PVC uvodnik za roletne 39 i 43 bez stranice</p>
		<p>PVC uvodnik za roletnu 55</p>
		<p>PVC uvodnik za roletne srednji stub</p>
		<p>PVC uvodnik za roletnu i komarnik za PVC vođicu 42 x 60</p>
		<p>PVC uvodnik za roletnu za PVC vođicu 42 x 60</p>
		<p>PVC uvodnik za roletnu za Al vođicu 39 x 53</p>
		<p>Uvodnik, točkić za rolo garažna vrata</p>

# Delovi za roletne

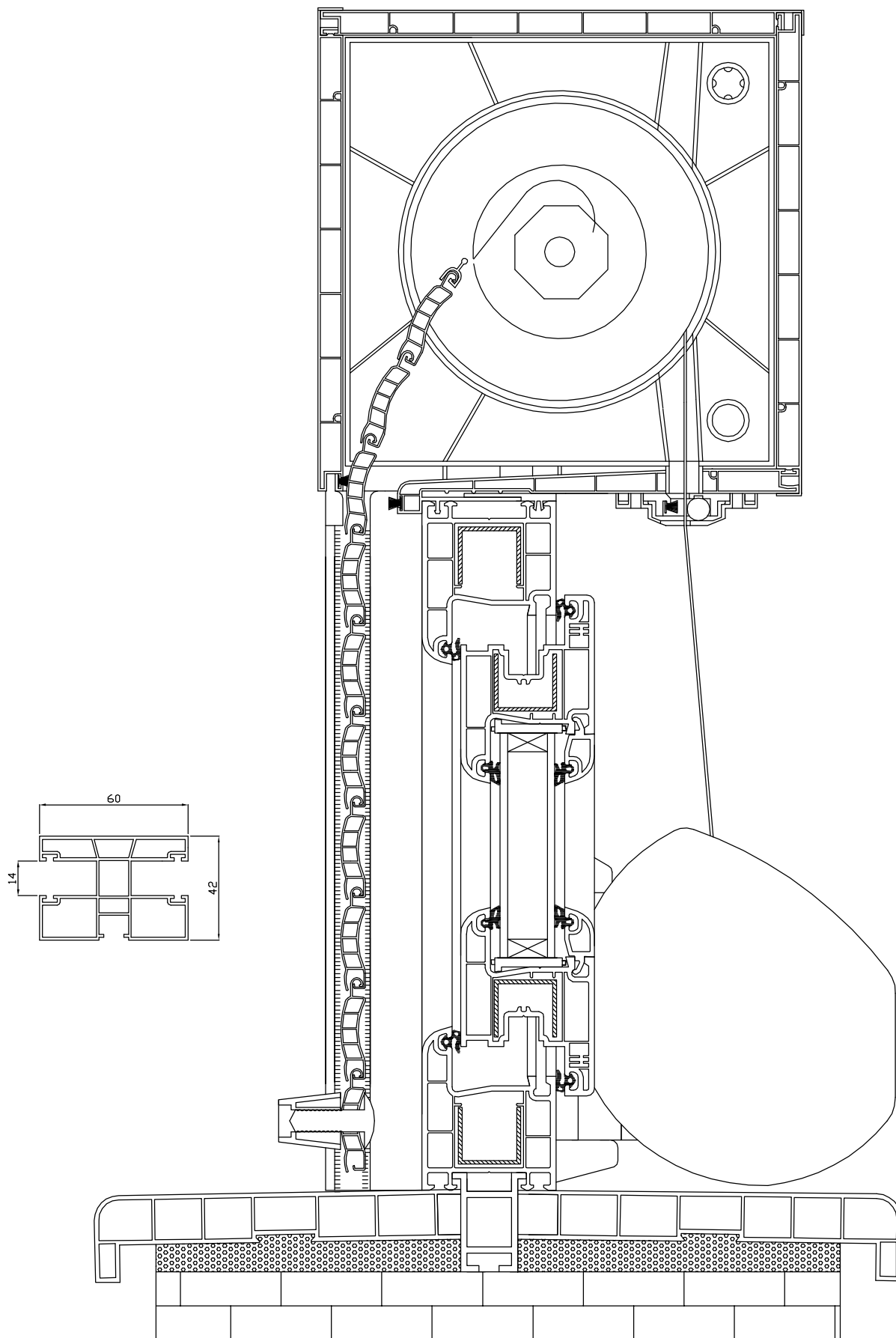


# SASTAVNI DELOVI SKLOPA PVC KUTIJE ZA ROLETNE SA KOMARNIKOM U KUTIJI

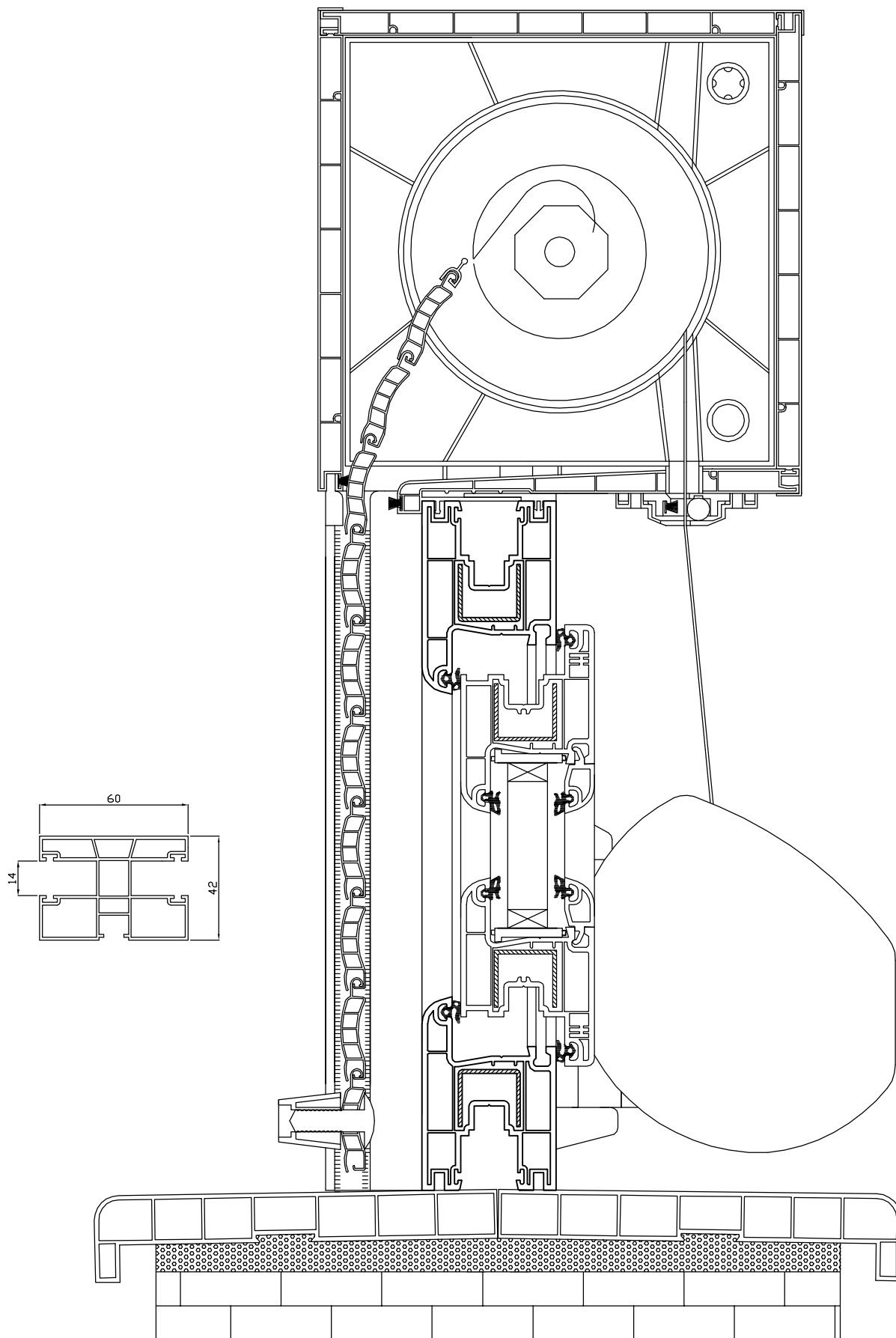


- 1 - PVC stranica, bočni poklopac PVC kutije za smeštaj roletni
- 2 - Kuglični ležaj
- 3 - PVC točak doboš za namotavanje rolo trake, gurtne, sa kućištem za kuglični ležaj za osovinu
- 4 - PVC osovina za roletne
- 5 - PVC završetak na osovini, sa kućištem za kuglični ležaj
- 6 - PVC stranica (prednja, zadnja i gornja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 7 - PVC stranica (donja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 8 - Četkice za PVC kutiju za smeštaj roletni
- 9 - PVC vodiča za roletne i komarnik 42x60
- 10 - PVC uvodnik za roletne i komarnik
- 11 - Četkice za PVC vodiču za roletne
- 12 - Zakačka roletni za osovinu
- 13 - PVC lamelica
- 14 - PVC odbojnik, graničnik za roletnu
- 15 - PVC rollica sa četkicom za mini rolo traku - gurtnu
- 16 - Rolo traka - gurtna
- 17 - PVC automat spoljašnji za mini rolo traku - gurtnu
- 18 - Osovina za oprugu
- 19 - Osovina za mrežu
- 20 - Mreža
- 21 - Zakačka gornja
- 22 - Zakačka donja

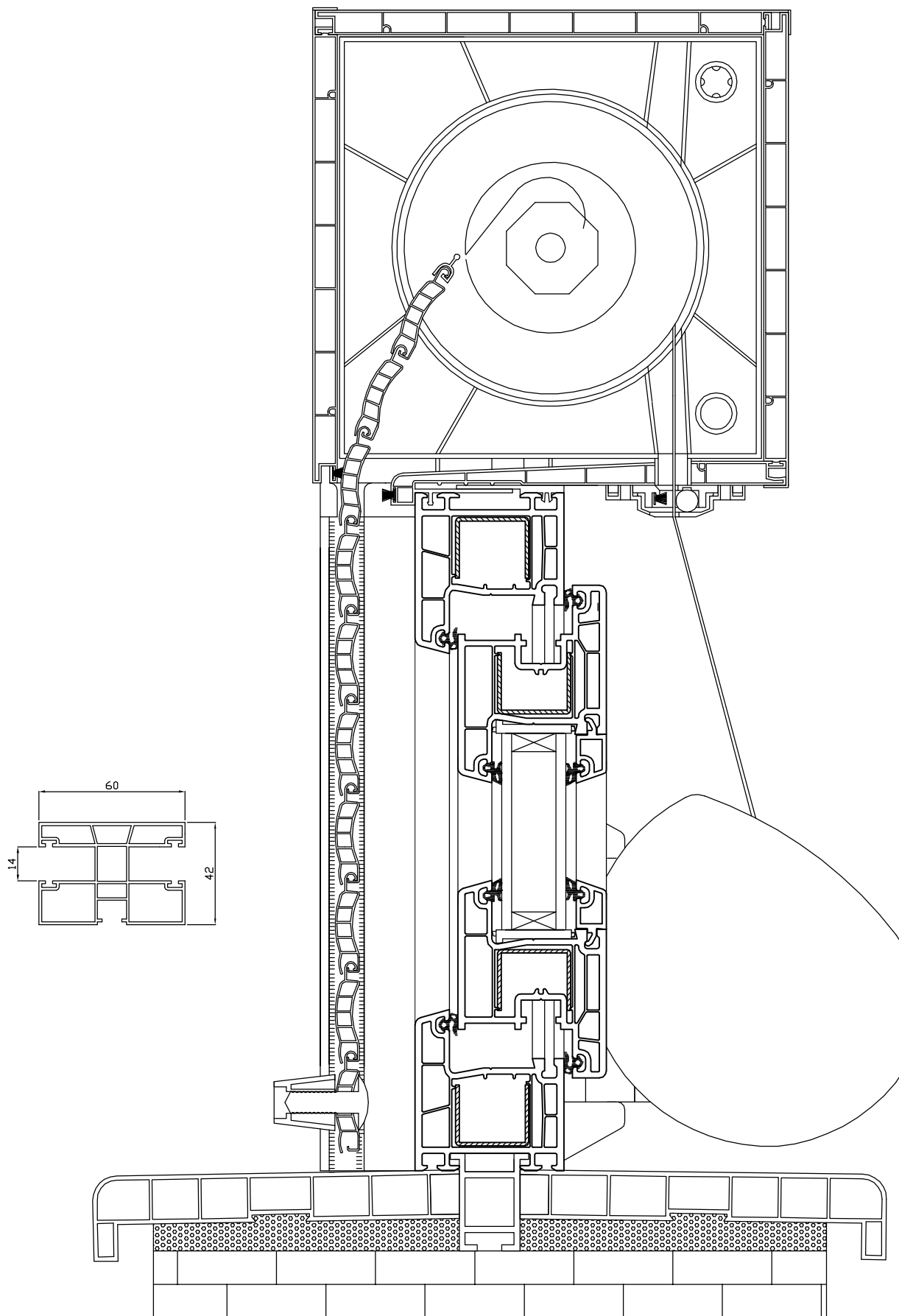
SKLOP 3 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195



SKLOP 3 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195

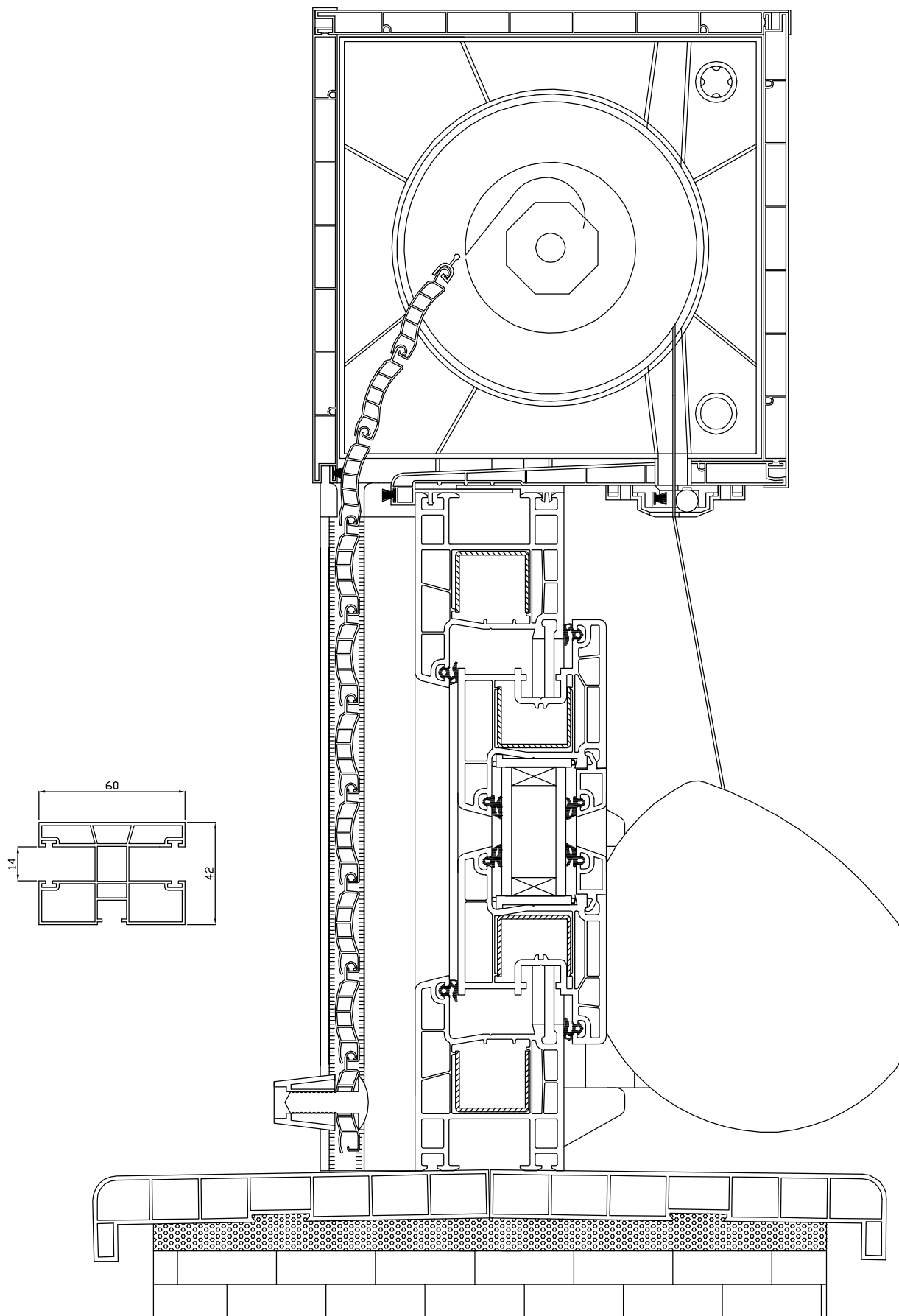


SKLOP 4 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195

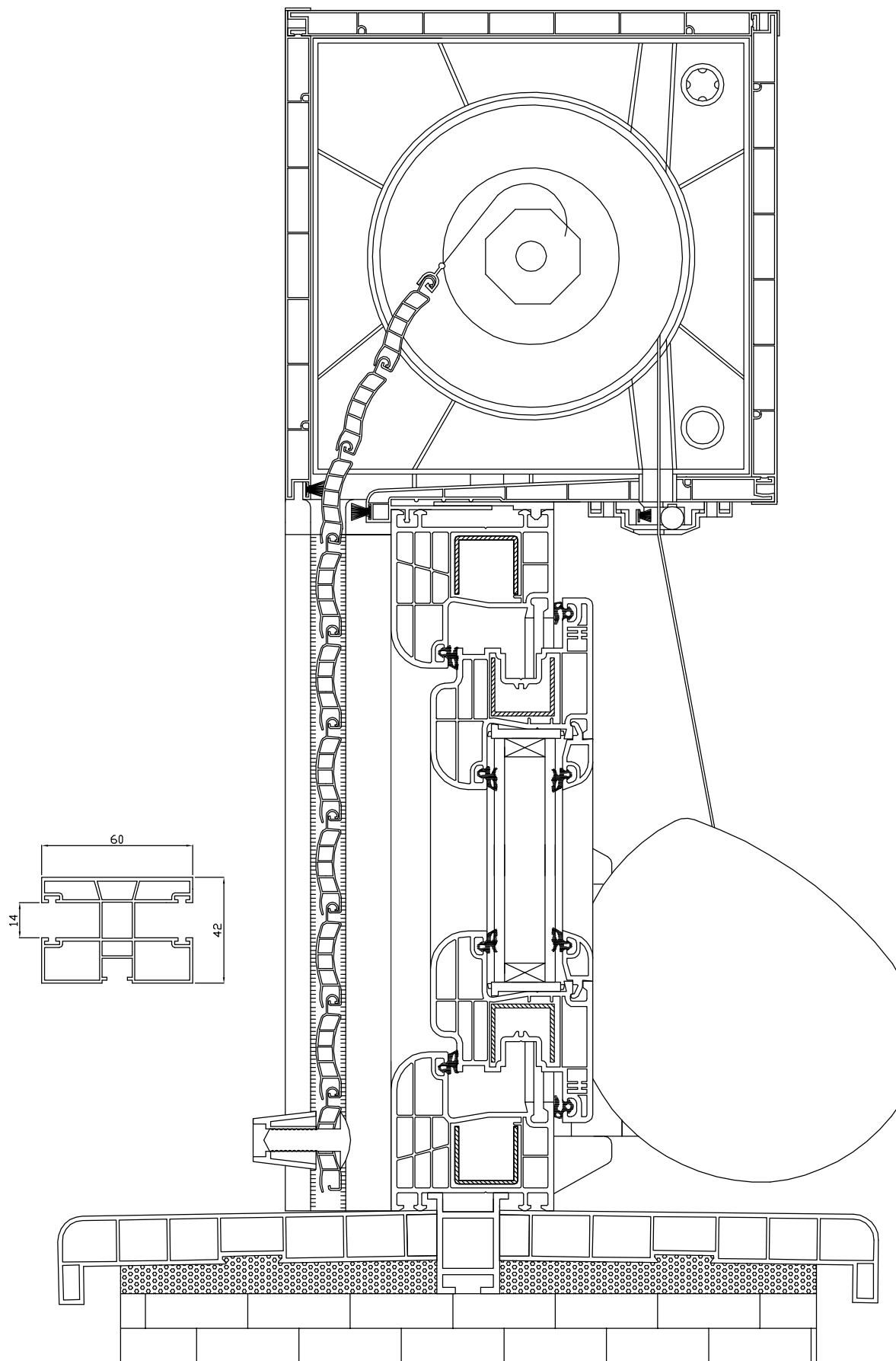




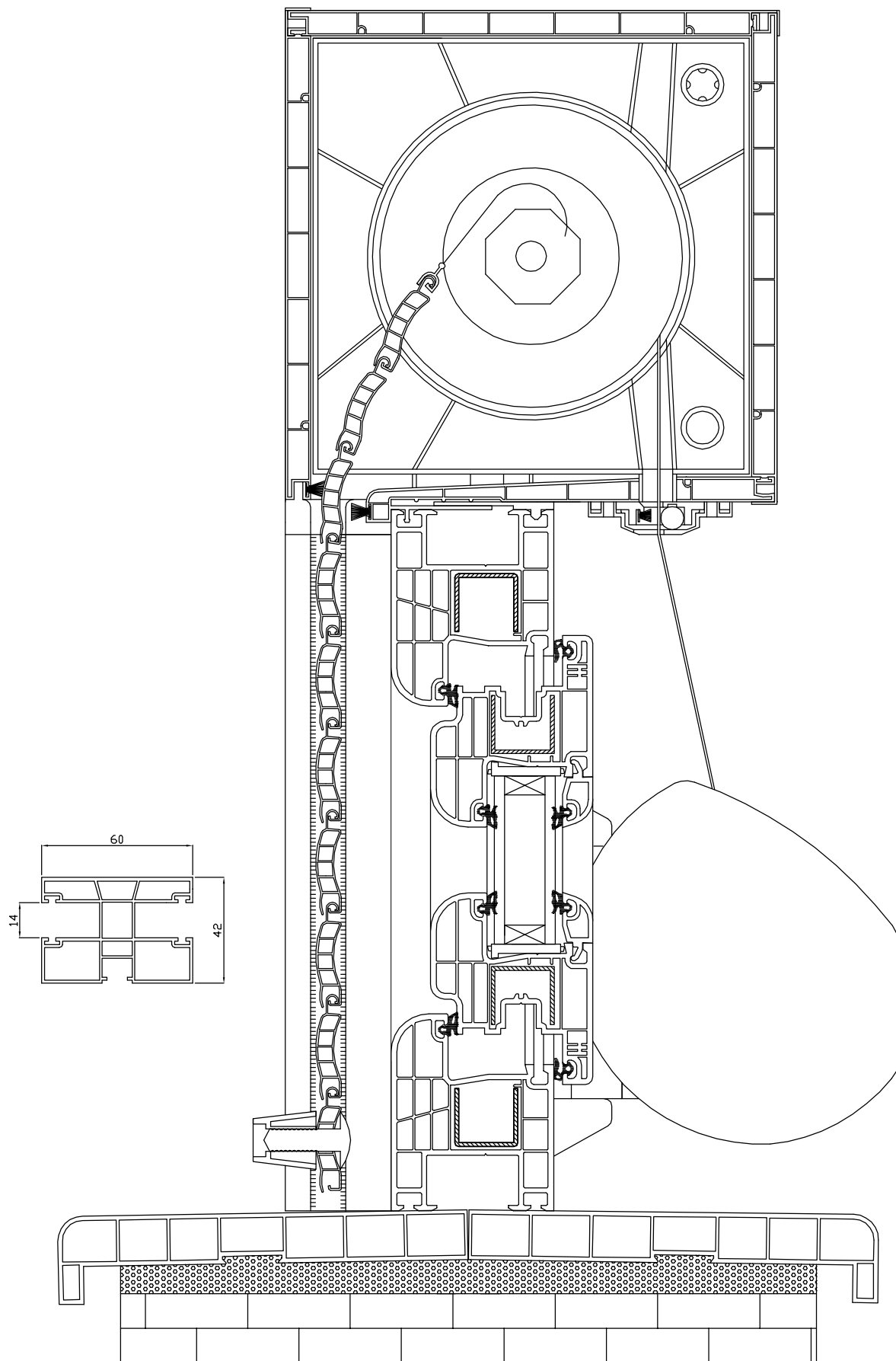
SKLOP 4 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195



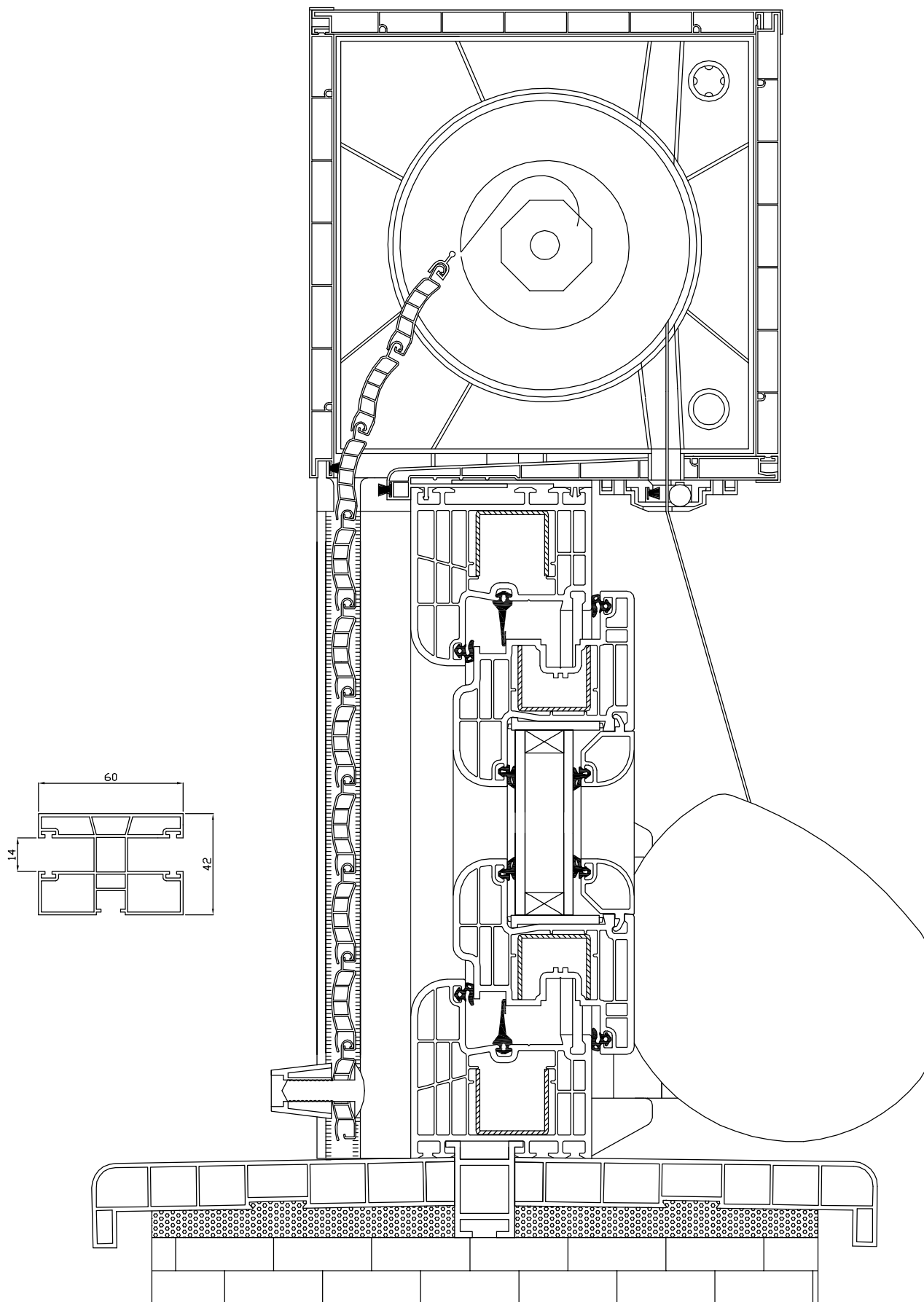
SKLOP 5 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195X195



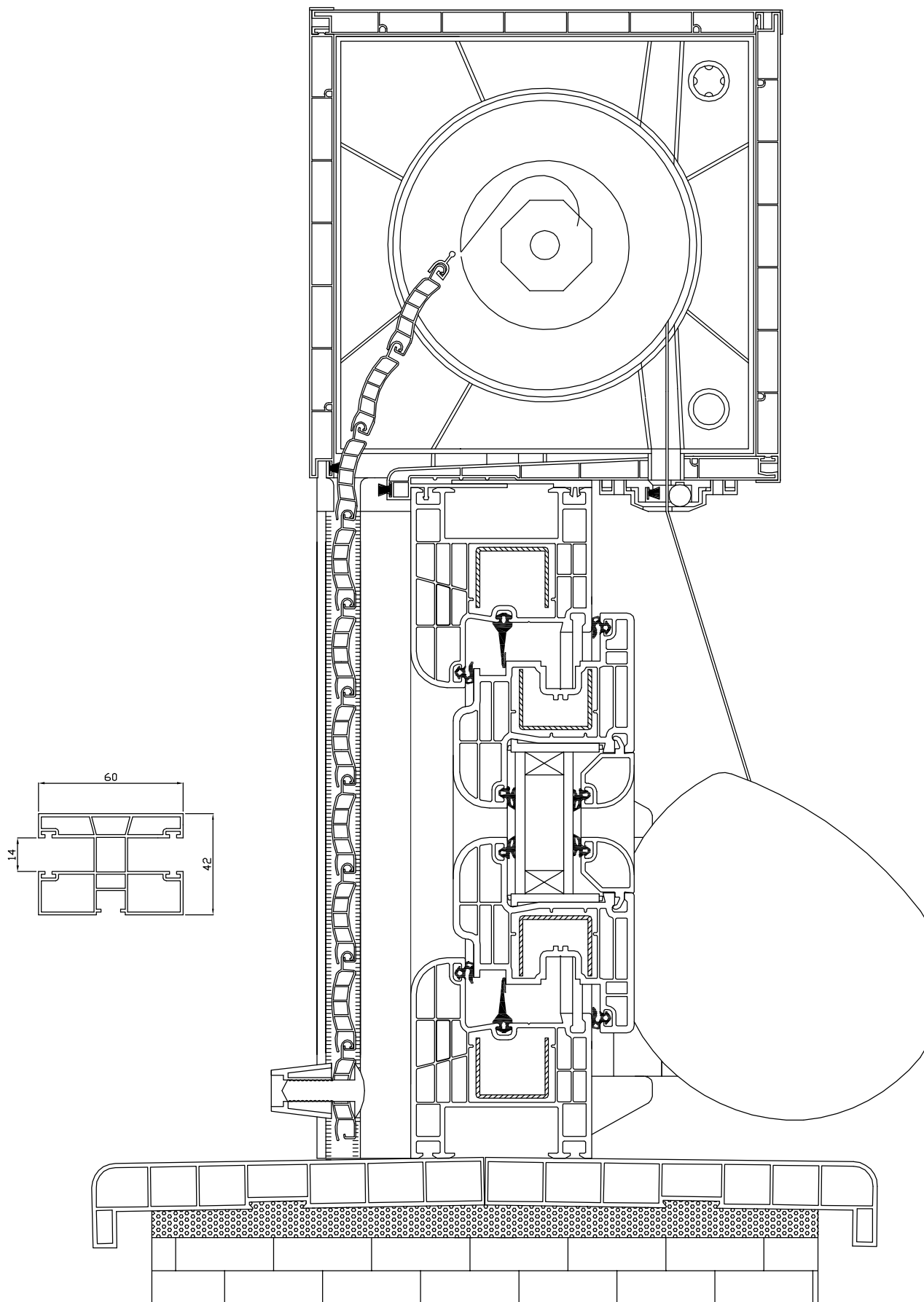
SKLOP 5 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195X195



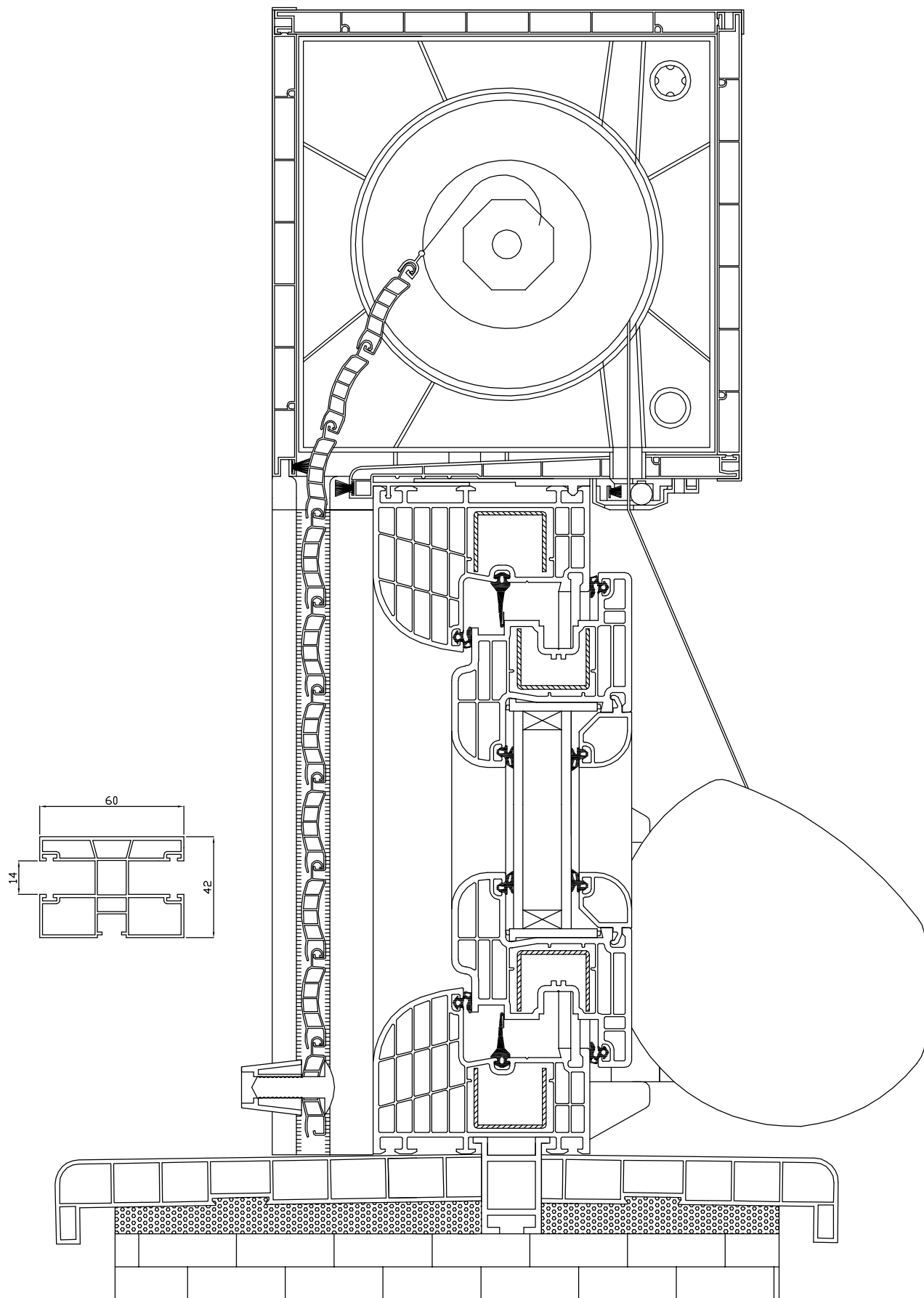
SKLOP 6 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195



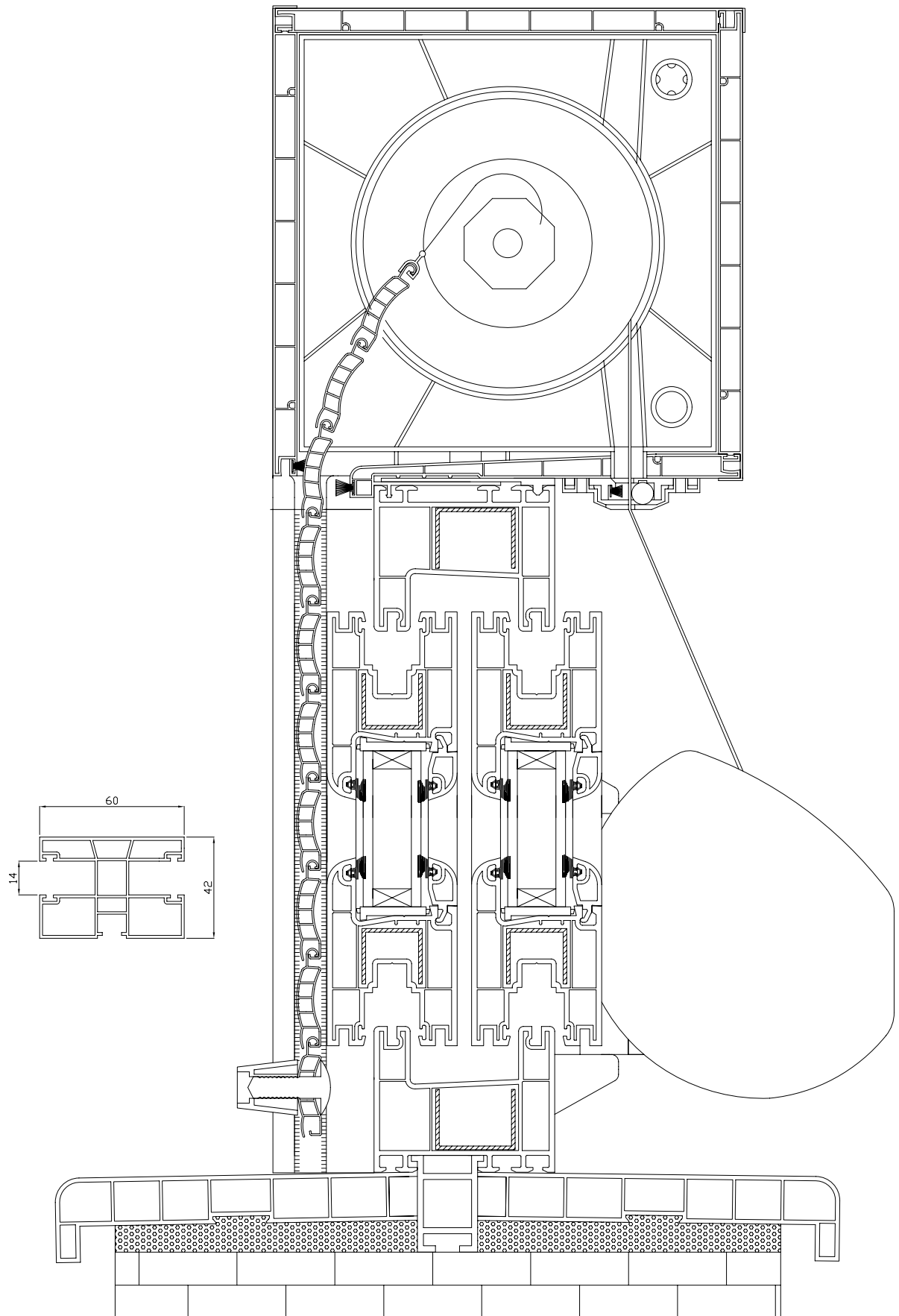
SKLOP 6 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195



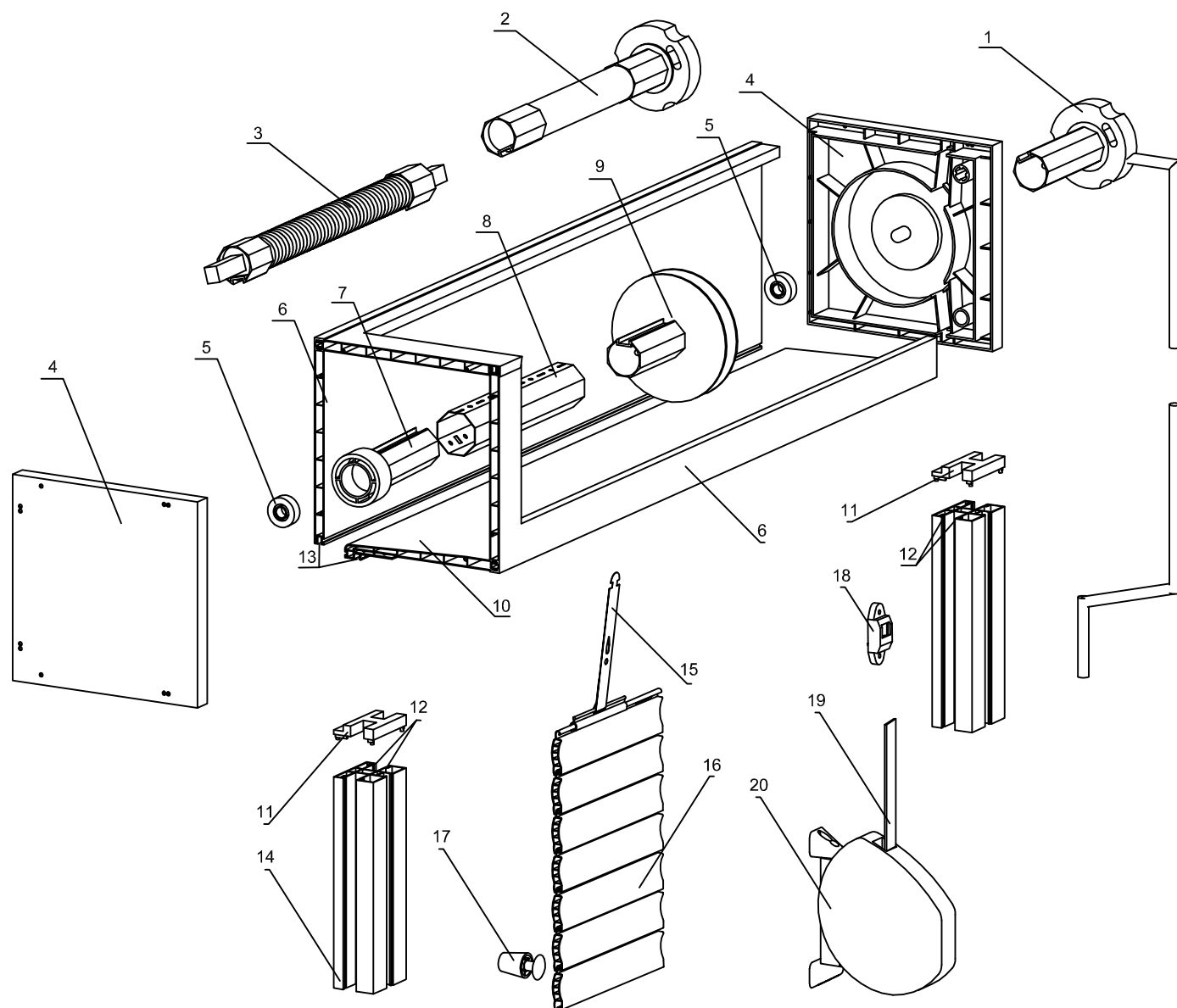
SKLOP 8 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195X195



# SKLOP 3 KOMORNOG KLIZNOG PVC PROZORA SA PVC KUTIJOM 195X195



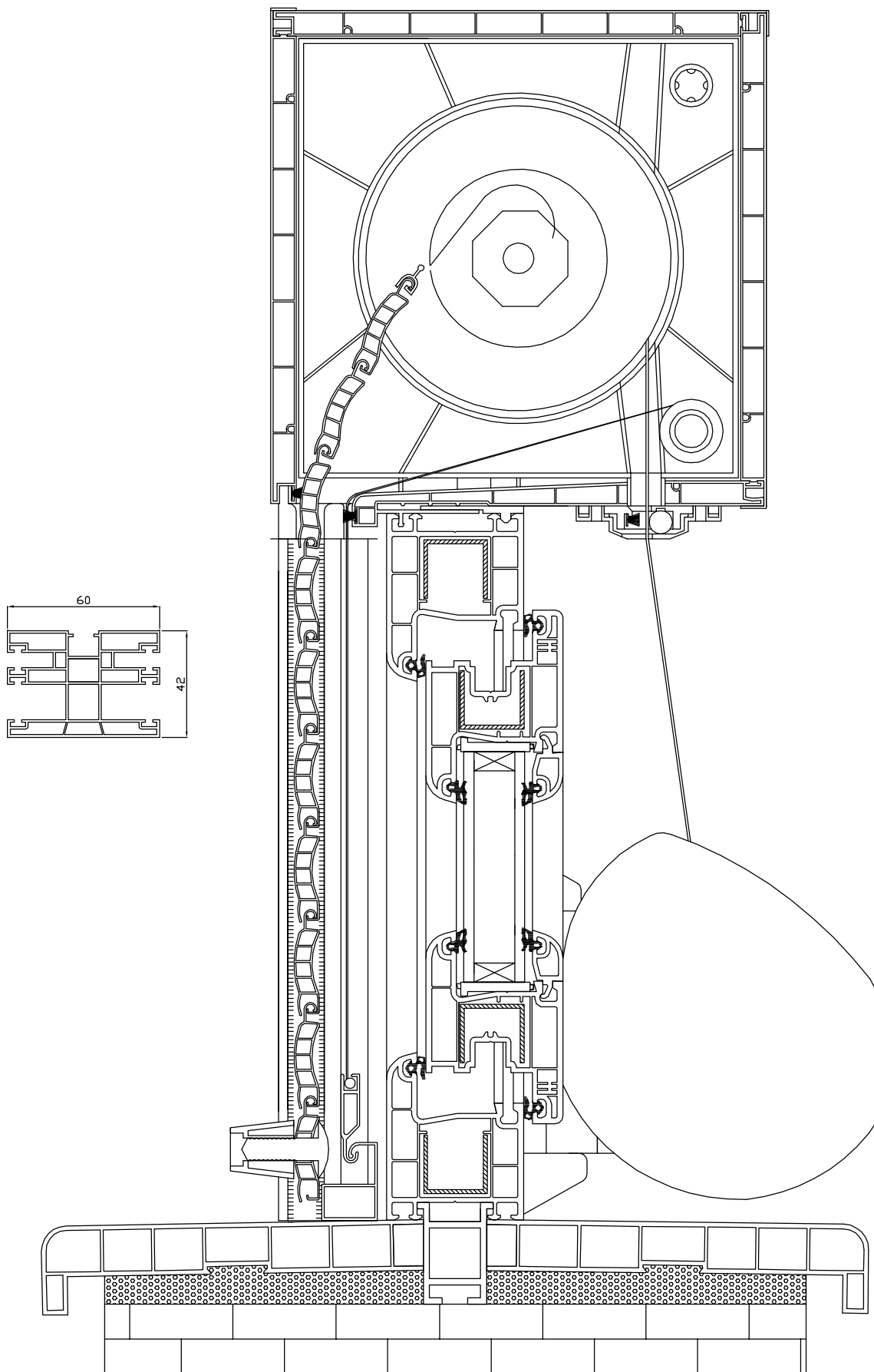
# DELOVI SKLOPA PVC KUTIJE ZA ROLETNE SA RAZLIČITIM MOGUĆNOSTIMA RUKOVANJA SA ROLETNOM



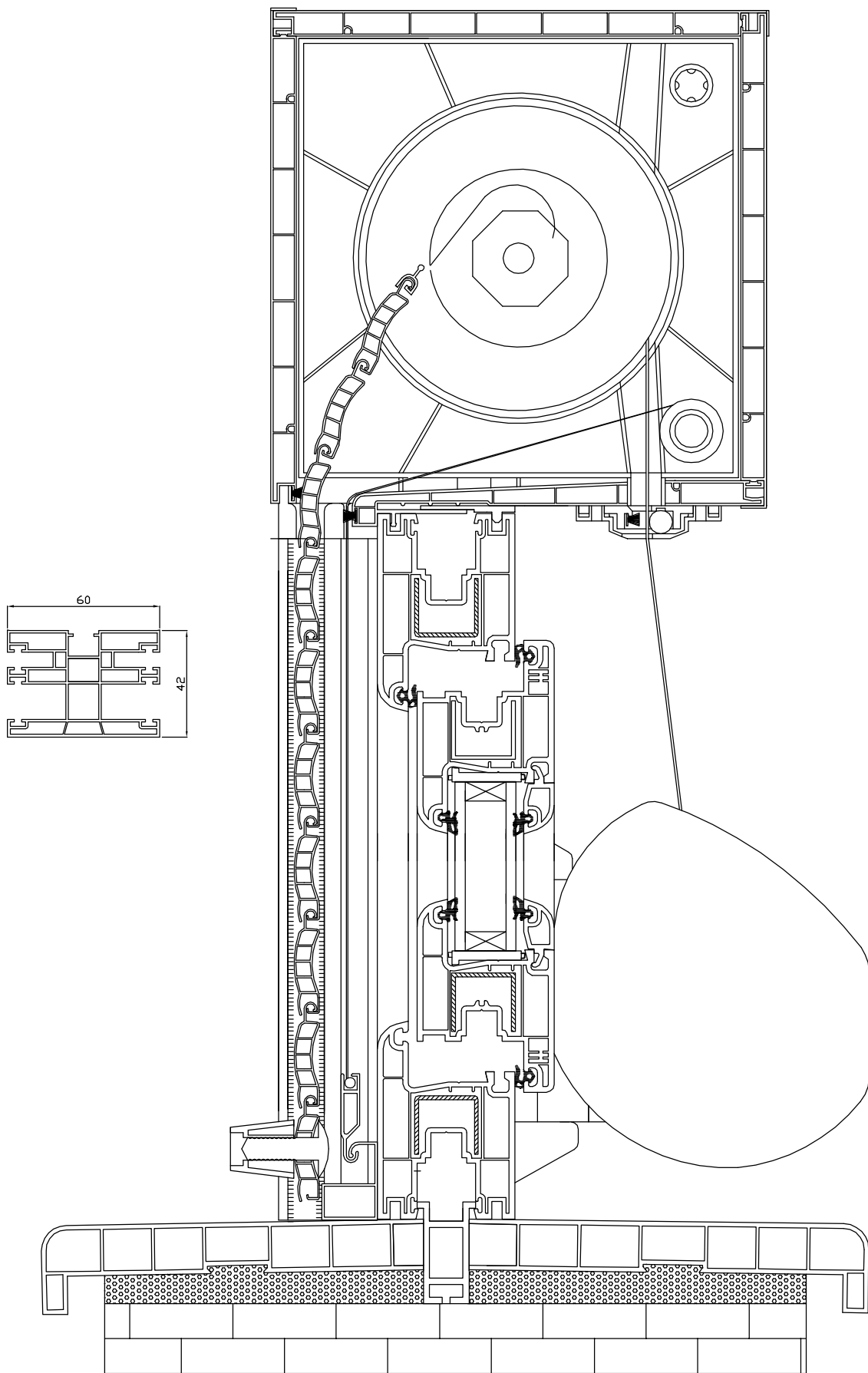
- 1 - Reduktor i kurbla za podizanje rolo vrata i roletni
- 2 - Elektromotor za podizanje rolo vrata i roletni
- 3 - Opruga za ručno podizanje rolo vrata i roletni
- 4 - PVC stranica, bočni poklopac PVC kutije za smeštaj roletni
- 5 - Kuglični ležaj
- 6 - PVC stranica (prednja, zadnja i gornja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 7 - PVC završetak na osovini, sa kućištem za kuglični ležaj
- 8 - PVC osovina za roletne
- 9 - PVC točak doboš za namotavanje rolo trake, gurtne, sa kućištem za kuglični ležaj za osovinu
- 10 - PVC stranica (donja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 11 - PVC uvodnik za roletne
- 12 - Četkice za PVC vođicu za roletne
- 13 - Četkice za PVC kutiju za smeštaj roletni
- 14 - PVC vođica za roletne 42x60
- 15 - Zakačka roletni za osovinu
- 16 - PVC lamelica
- 17 - PVC odbojnik, graničnik za roletnu
- 18 - PVC rolnica sa četkicom za mini rolo traku - gurtnu
- 19 - Rolo traka - gurtna
- 20 - PVC automat spoljašnji za mini rolo traku - gurtnu



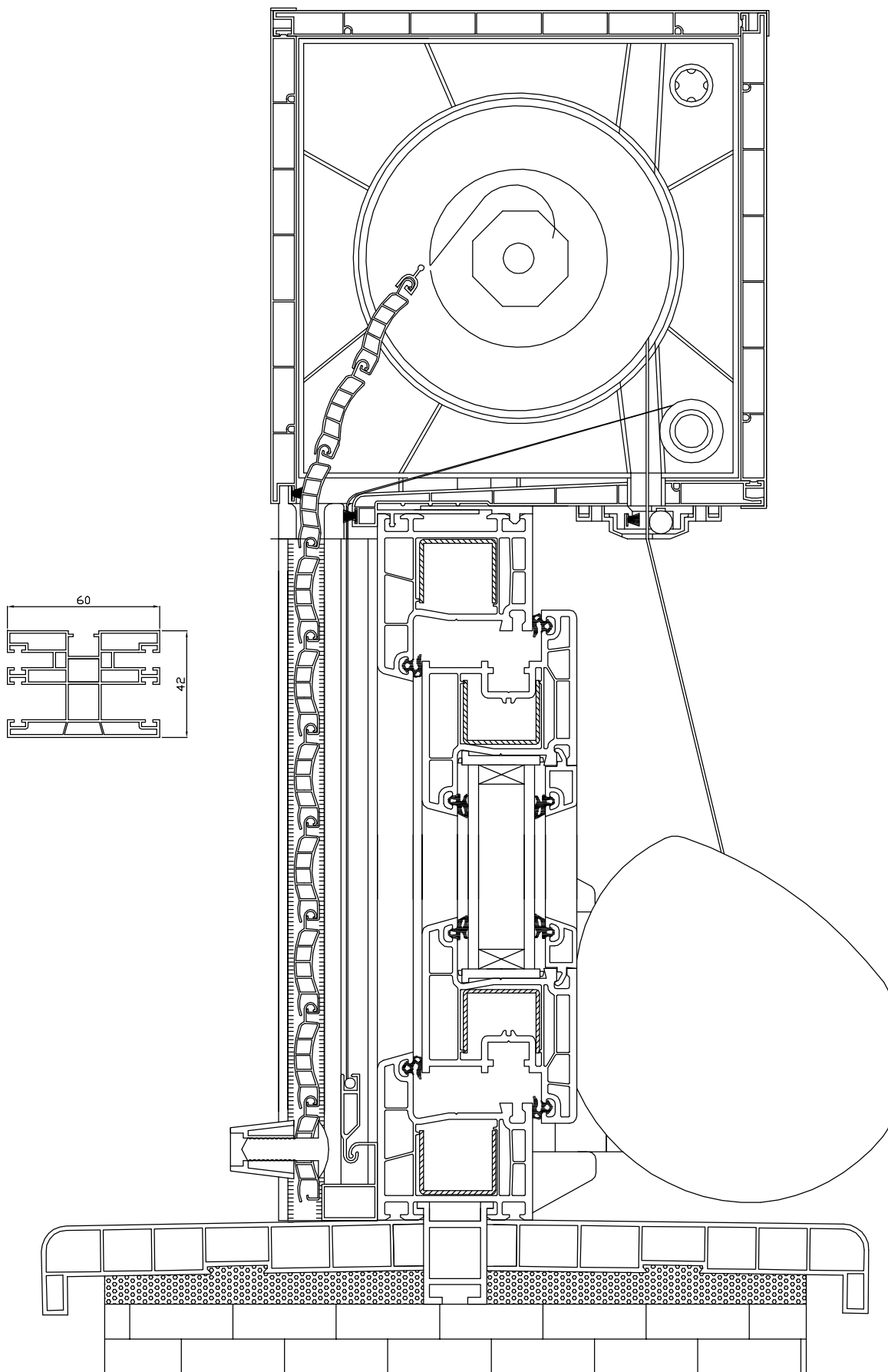
SKLOP 3 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI



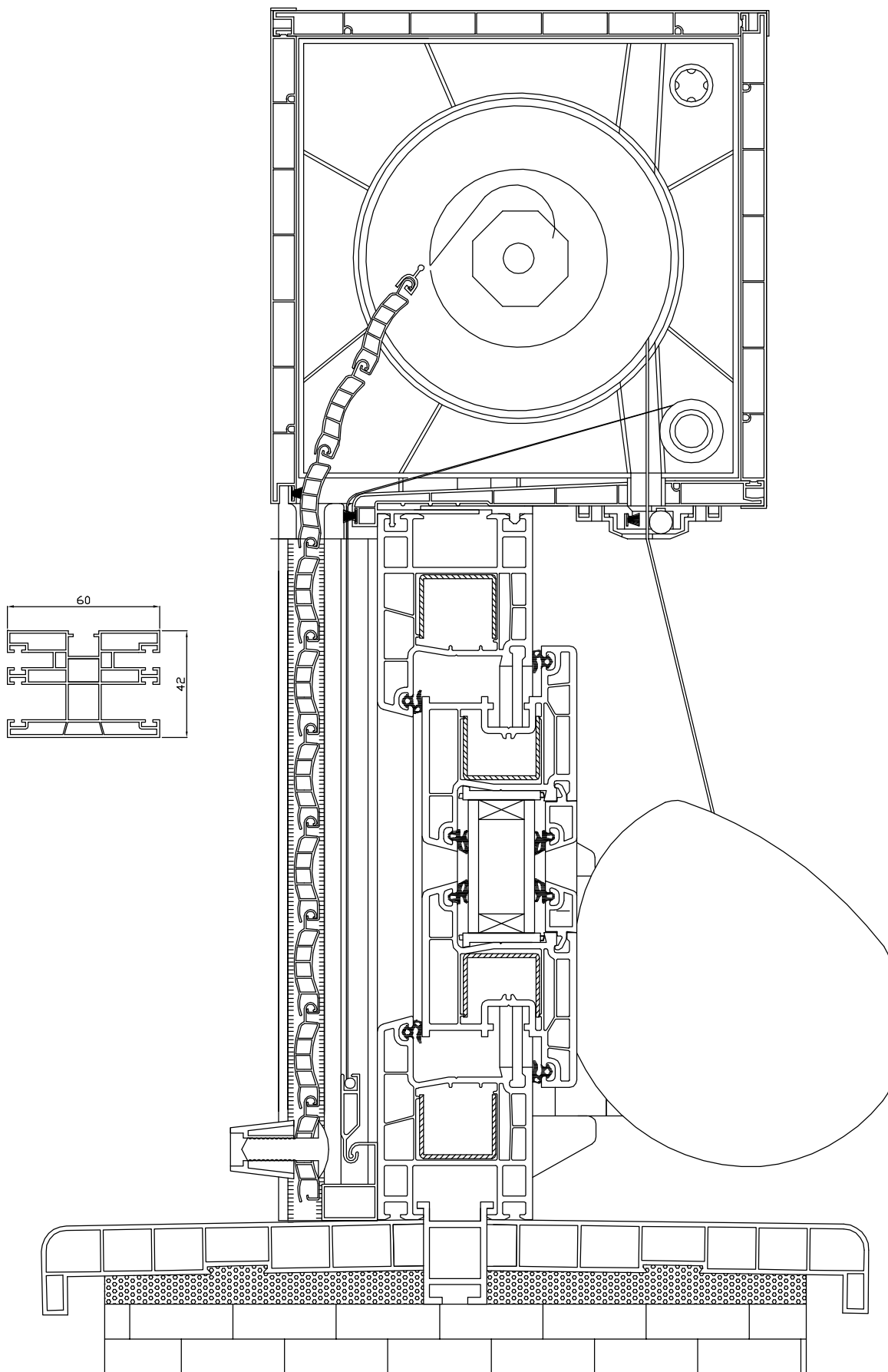
SKLOP 3 KOMORNOG PVC PROZORA SA PROSIRENIM RAMOM I PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI



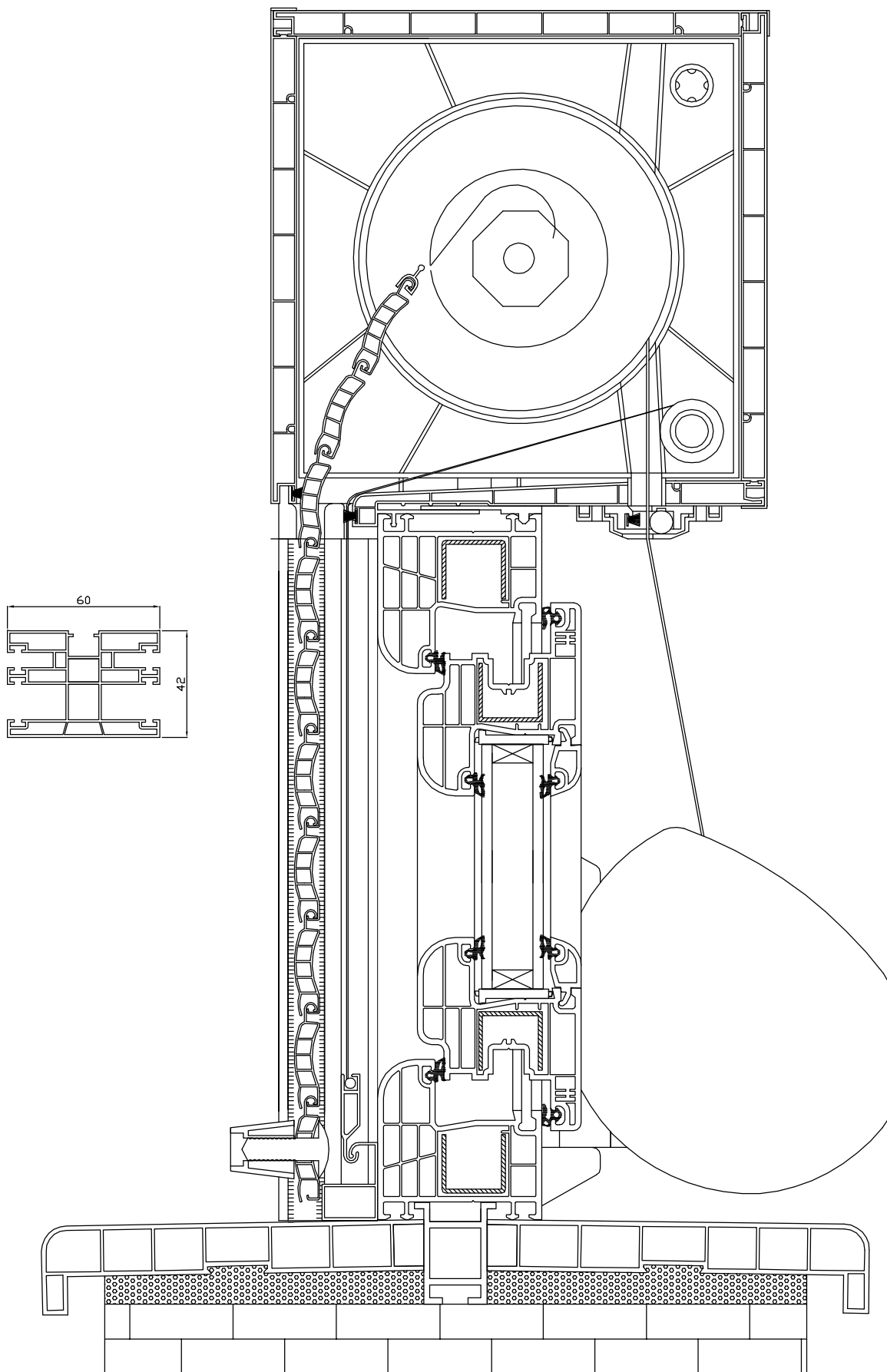
SKLOP 4 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI



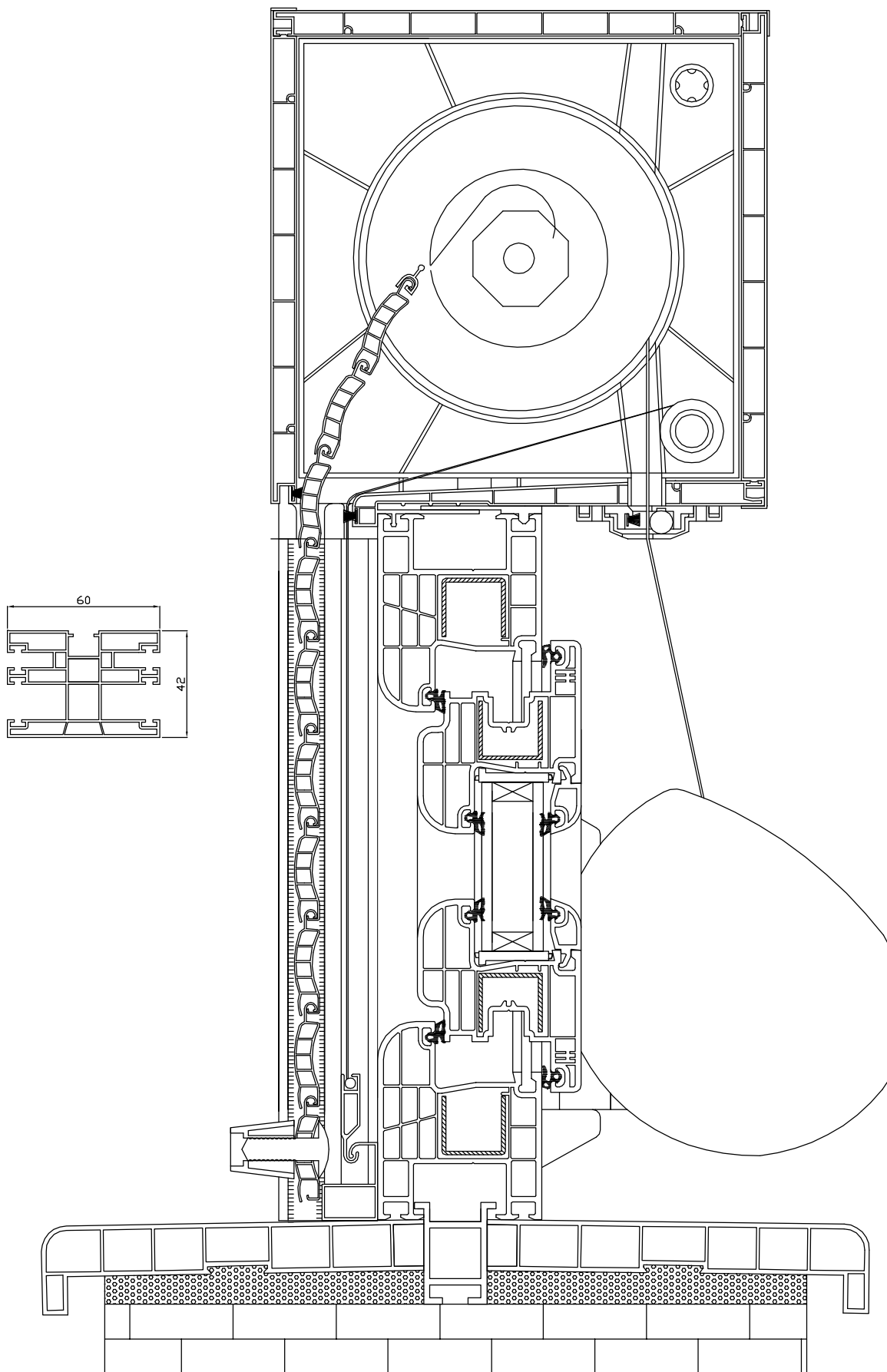
SKLOP 4 KOMORNOG PVC PROZORA SA PROSIRENIM RAMOM I PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI



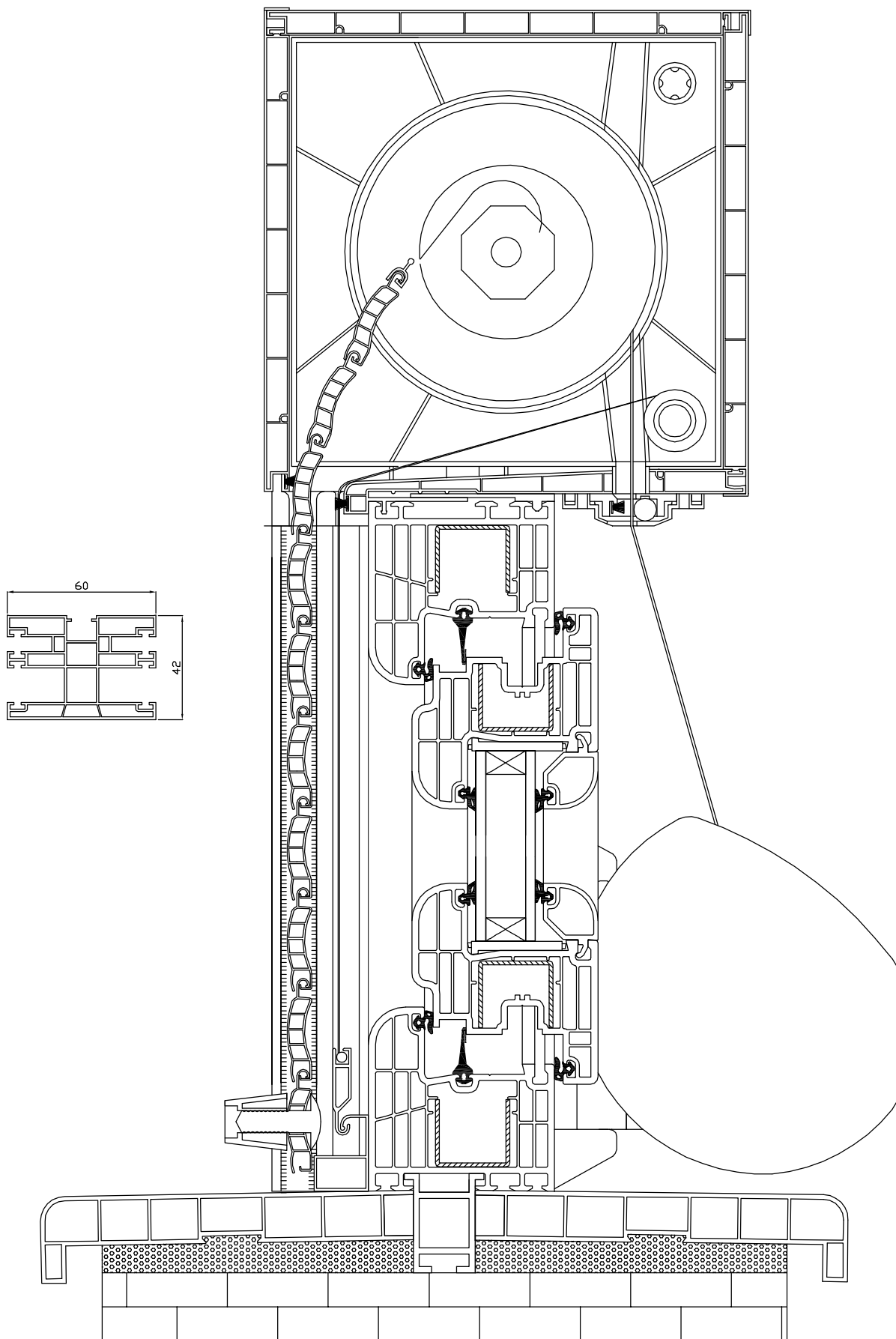
SKLOP 5 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI



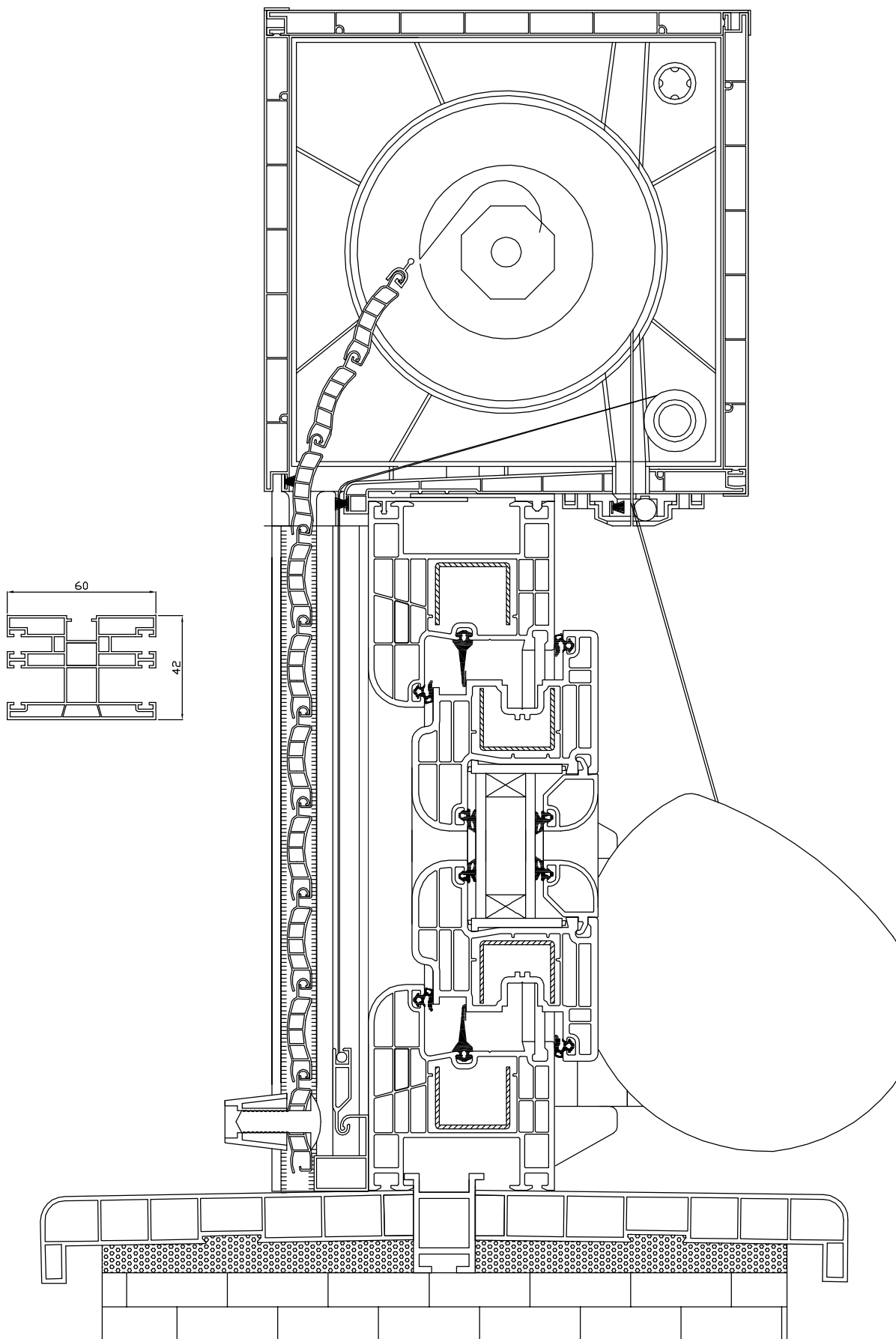
SKLOP 5 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI



SKLOP 6 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI

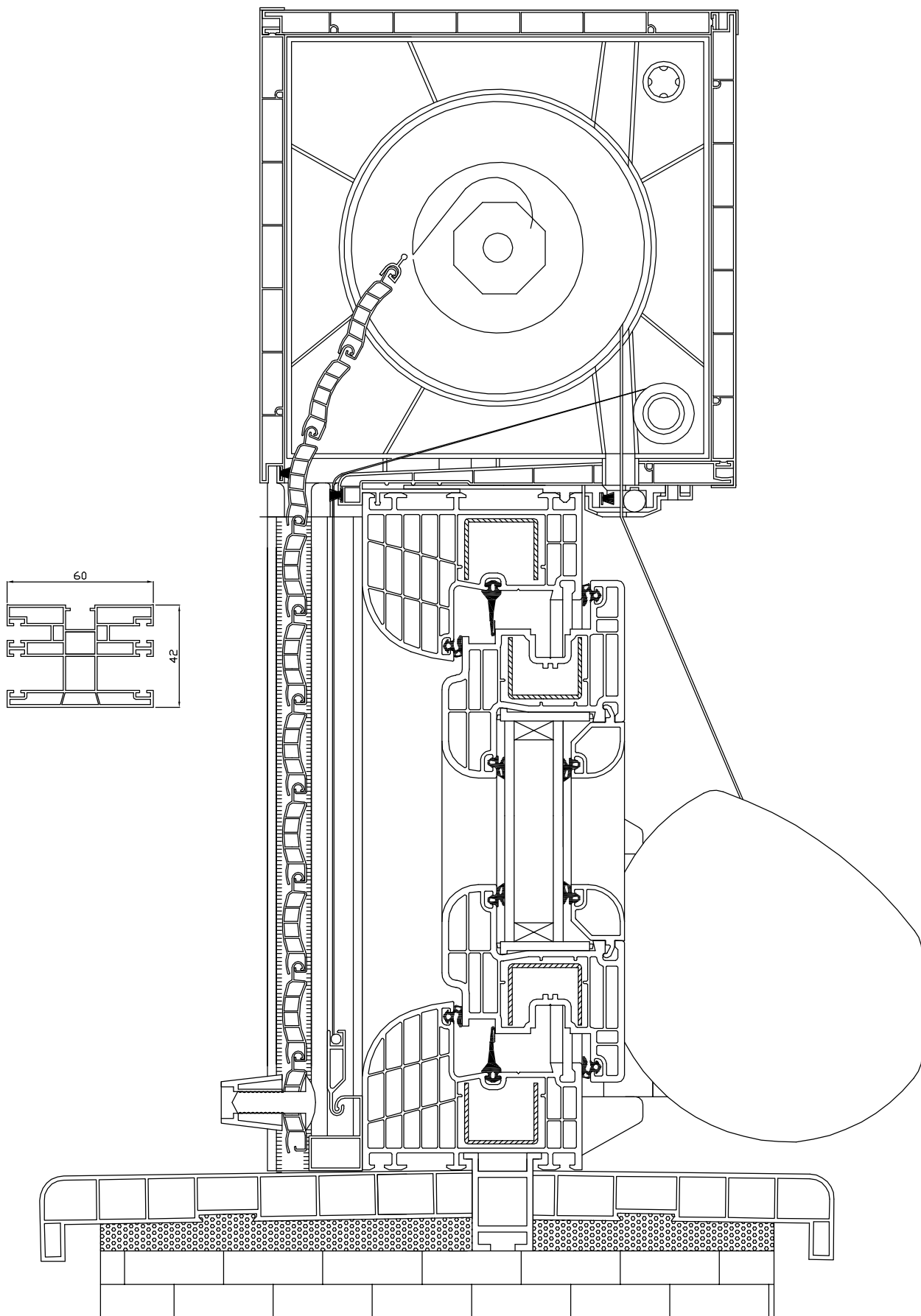


SKLOP 6 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI

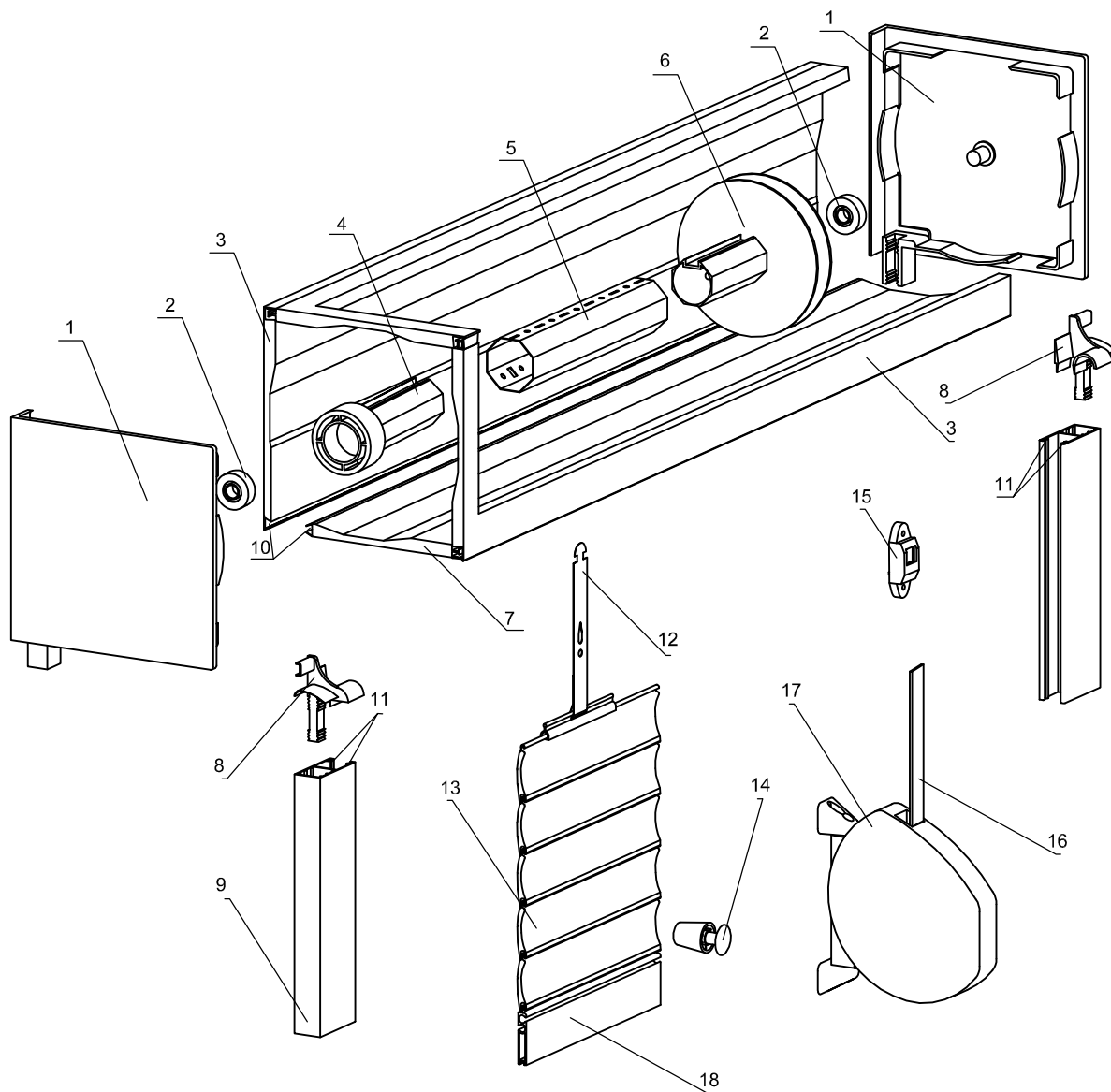




SKLOP 8 KOMORNOG PVC PROZORA SA PVC  
KUTIJOM 195x195 I KOMARNIKOM U KUTIJI

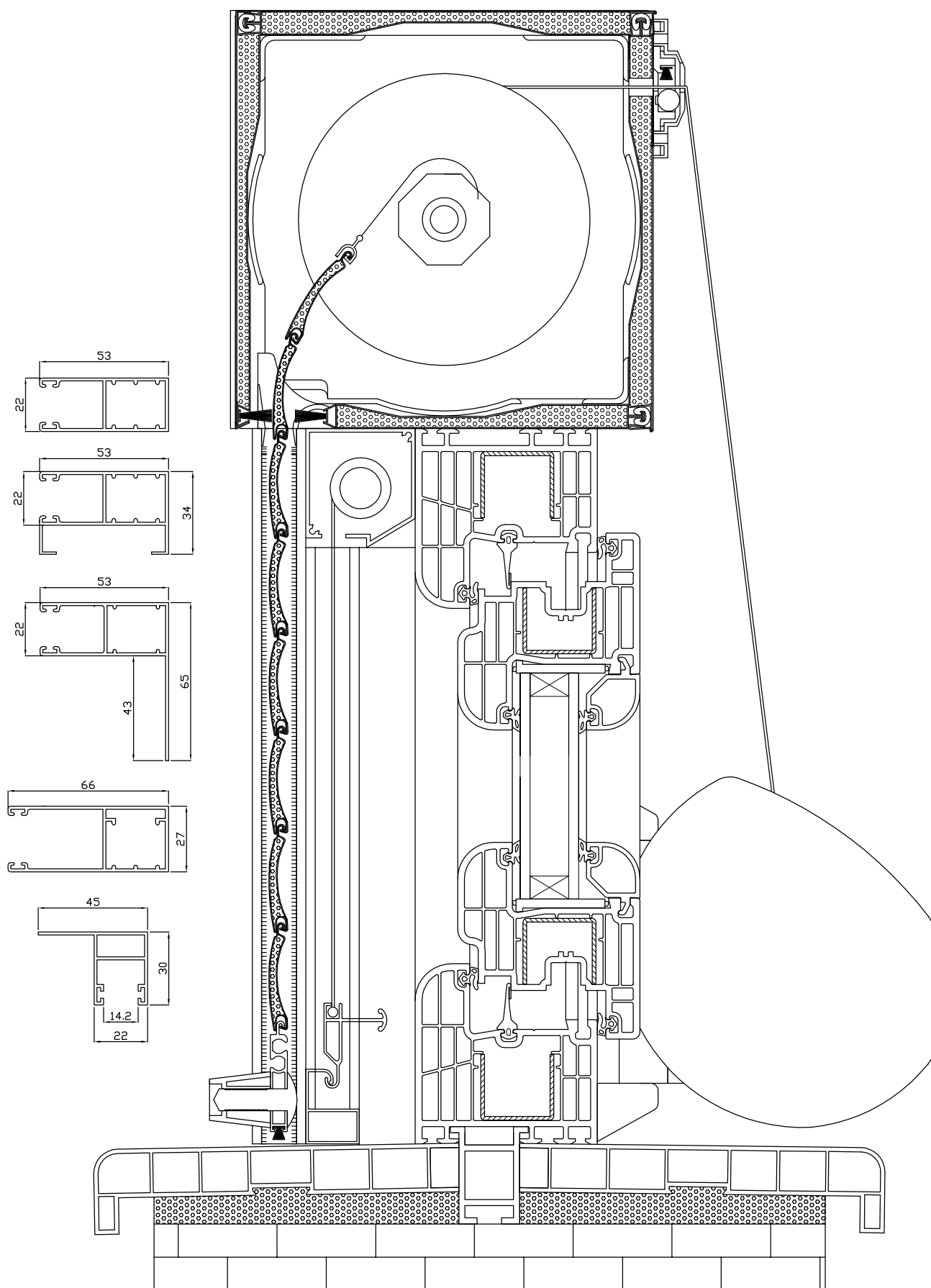


# DELOVI SKLOPA ALUMINIJUMSKE TERMO KUTIJE ZA ROLETNE

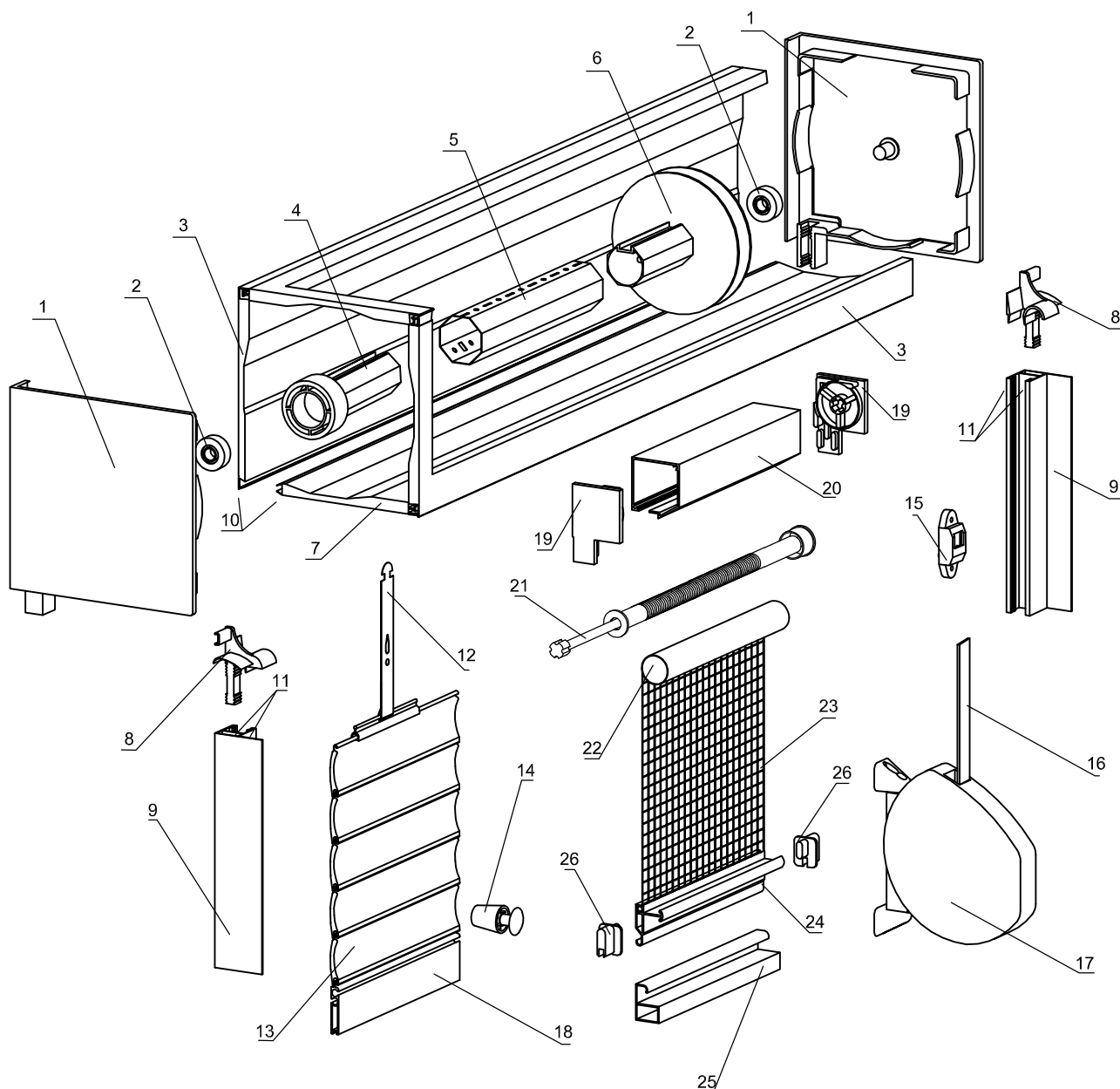


- 1 - PVC stranica, bočni poklopac PVC kutije za smeštaj roletni
- 2 - Kuglični ležaj
- 3 - PVC stranica (prednja, zadnja i gornja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 4 - PVC završetak na osovini, sa kućištem za kuglični ležaj
- 5 - PVC osovina za roletne
- 6 - PVC točak doboš za namotavanje rolo trake, gurtne, sa kućištem za kuglični ležaj za osovinu
- 7 - PVC stranica (donja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 8 - PVC uvodnik za roletne
- 9 - Al vodica za roletne 22x53
- 10 - Četkice za PVC kutiju za smeštaj roletni
- 11 - Četkice za PVC vodicu za roletne
- 12 - Zakačka roletni za osovinu
- 13 - PVC lamelica
- 14 - PVC odbojnik, graničnik za roletnu
- 15 - PVC rolnica sa četkičom za mini rolo traku - gurtnu
- 16 - Rolo traka - gurtna
- 17 - PVC automat spoljašnji za mini rolo traku - gurtnu
- 18 - Aluminijska lajsna za zaključavanje roletni

# SKLOP 6 KOMORNOG PVC PROZORA SA TERMO KUTIJOM I KOMARNIKOM U KUTIJI

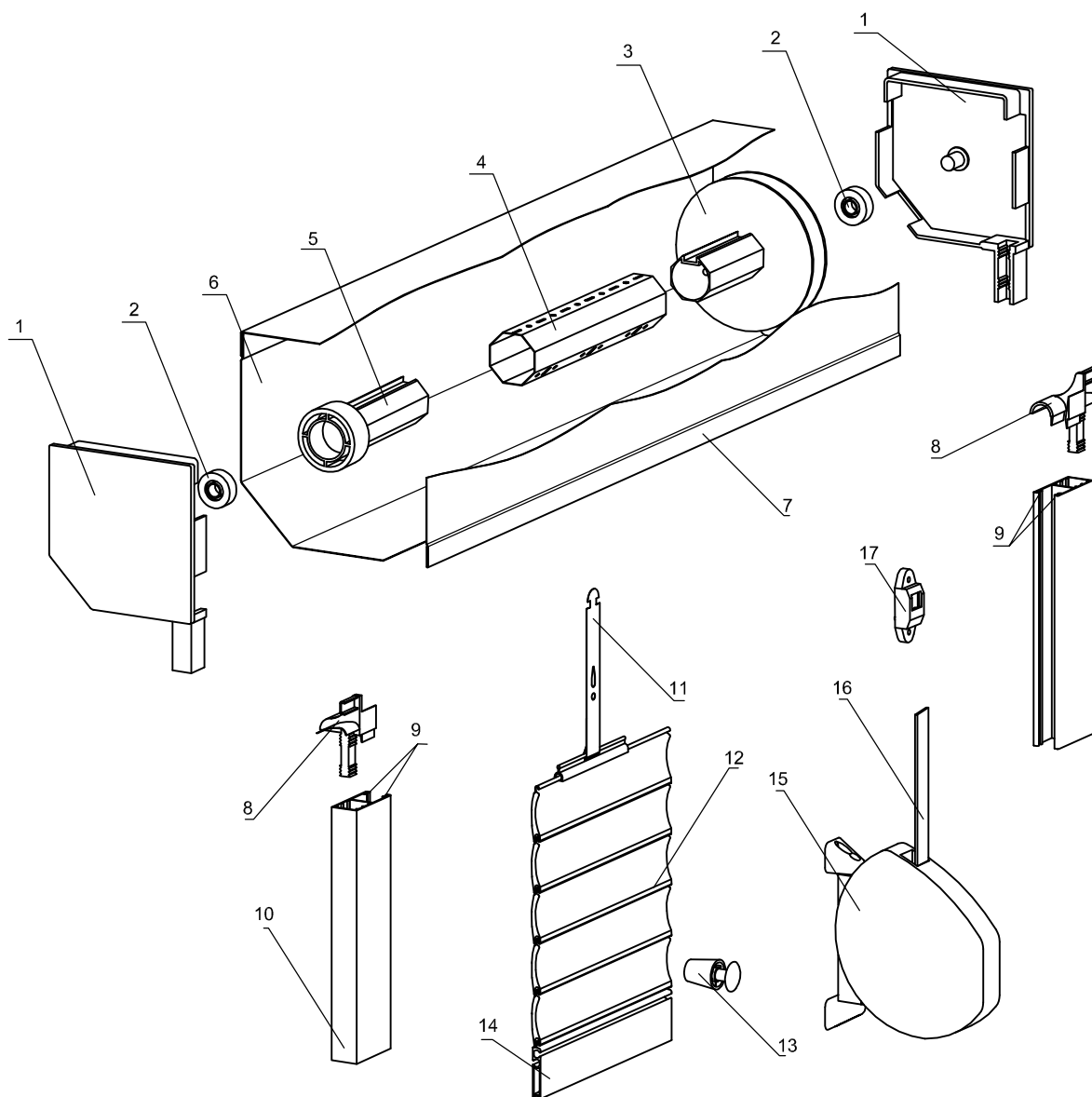


# DELOVI SKLOPA ALUMINIJUMSKE TERMO KUTIJE ZA ROLETNE SA SPOLJASNJIM ROLOKOMARNIKOM



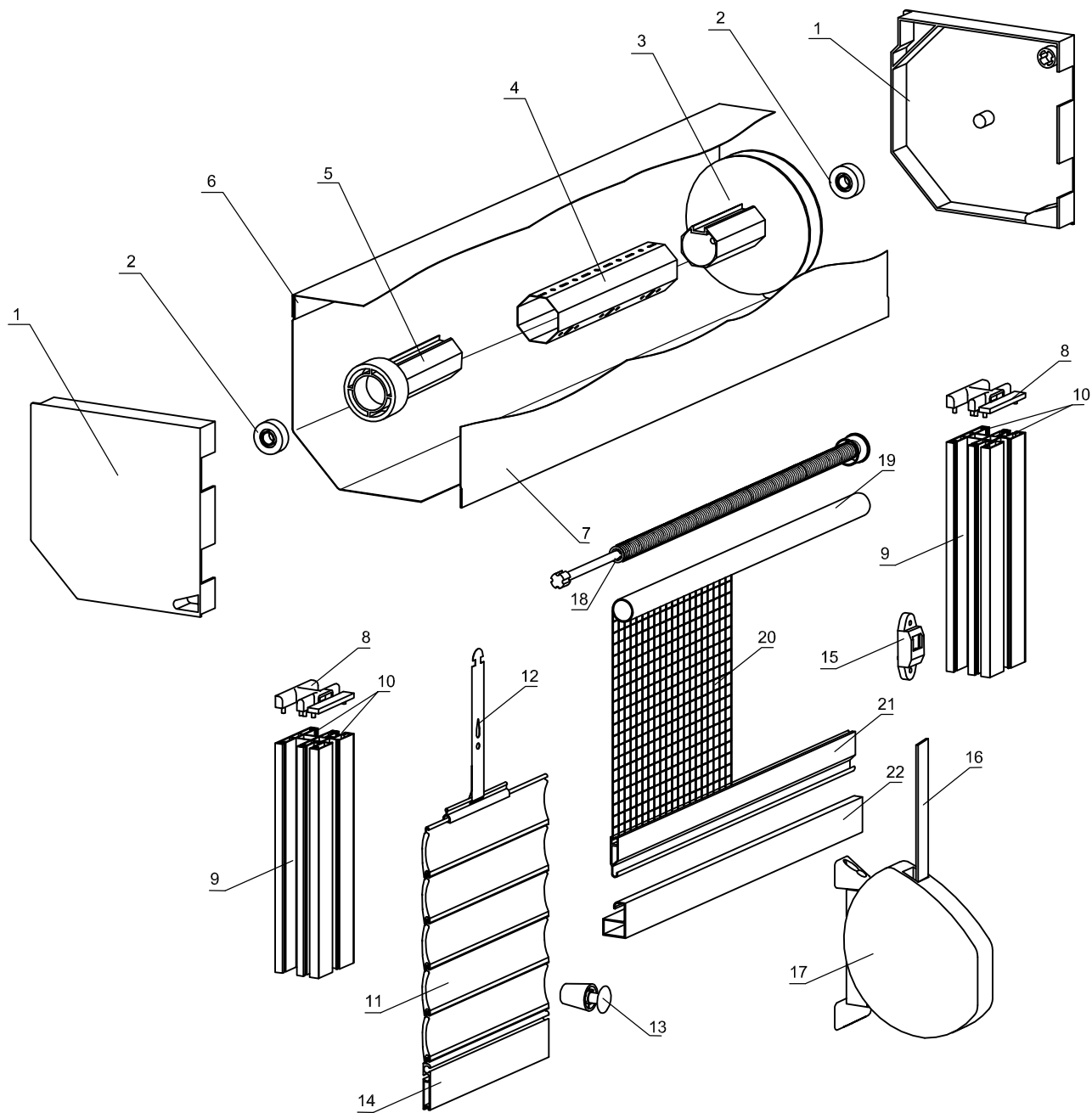
- 1 - PVC stranica, bočni poklopac PVC kutije za smeštaj roletni
- 2 - Kuglični ležaj
- 3 - PVC stranica (prednja, zadnja i gornja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 4 - PVC završetak na osovini, sa kućištem za kuglični ležaj
- 5 - PVC osovina za roletne
- 6 - PVC točak doboš za namotavanje rolo trake, gurtne, sa kućištem za kuglični ležaj za osovinu
- 7 - PVC stranica (donja) kutije za smeštaj roletne, unutrašnja nadogradnja na prozore
- 8 - PVC uvodnik za roletne
- 9 - Al vođica sa perom za roletne 65x53
- 10 - Četkice za PVC kutiju za smeštaj roletni
- 11 - Četkice za PVC vođicu za roletne
- 12 - Zakačka roletni za osovinu
- 13 - Al lamelica
- 14 - PVC odbojnik, graničnik za roletnu
- 15 - PVC rolnica sa četkicom za mini rolo traku - gurtnu
- 16 - Rolo traka - gurtna
- 17 - PVC automat spoljašnji za mini rolo traku - gurtnu
- 18 - Aluminijska lajsna za zaključavanje roletni
- 19 - PVC bočni poklopac za rolo komarnik
- 20 - Al kutija za mrežu za rolo komarnik
- 21 - Osovina za oprugu za rolo komarnik
- 22 - Osovina za mrežu za rolo komarnik
- 23 - Mreža za rolo komarnik
- 24 - Zakačka gornja za rolo komarnik
- 25 - Zakačka donja za rolo komarnik
- 26 - PVC čep za gornju zakačku za rolo komarnik

# DELOVI SKLOPA SPOLJAŠNJE KUTIJE OD ALUMINIJUMSKOG LIMA ZA ROLETNE

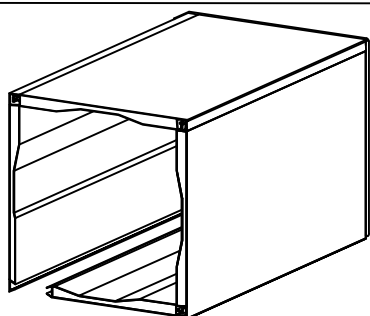


- 1 - Aluminijumska stranica, bočni poklopac za dvodelnu aluminijumsku kutiju
- 2 - Kuglični ležaj
- 3 - PVC točak doboš za namotavanje rolo trake, gurtne, sa kućištem za kuglični ležaj za osovinu
- 4 - Metalna osovina za roletne
- 5 - PVC završetak na osovini, sa kućištem za kuglični ležaj
- 6 - Prednji deo dvodelne maske od aluminijumskog lima, spoljasnja nadogradnja na prozore
- 7 - Zadnji deo dvodelne maske od aluminijumskog lima, spoljasnja nadogradnja na prozore
- 8 - PVC uvodnik za roletne
- 9 - Četkice za Aluminijumsku vodiču za roletne
- 10 - Aluminijumska vodiča za roletne 22x53
- 11 - Zakačka roletni za osovinu
- 12 - Aluminijumska lamelica
- 13 - PVC odbojnik, graničnik za roletnu
- 14 - Aluminijumska lajsna za zaključavanje roletni
- 15 - PVC automat spoljašnji za mini rolo traku - gurtnu
- 16 - Rolo traka - gurtna
- 17 - PVC rolnica sa četkicom za mini rolo traku - gurtnu

# DELOVI SKLOPA SPOLJAŠNJE KUTIJE OD ALUMINIJUMSKOG LIMA ZA ROLETNU I KOMARNIK

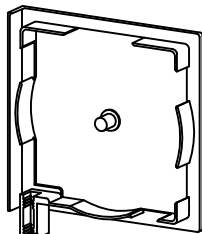


- 1 - PVC stranica, bočni poklopac limene dvodelne kutije za smeštaj roletni
- 2 - Kuglični ležaj
- 3 - PVC točak doboš za namotavanje rolo trake, gurtne, sa kućištem za kuglični ležaj za osovinu
- 4 - PVC osovina za roletne
- 5 - PVC završetak na osovini, sa kućištem za kuglični ležaj
- 6 - Prednji deo dvodelne maske od aluminijumskog lima, spoljasnja nadogradnja na prozore
- 7 - Zadnji deo dvodelne maske od aluminijumskog lima, spoljasnja nadogradnja na prozore
- 8 - Četkice za PVC kutiju za smeštaj roletni
- 9 - PVC vođica za roletne i komarnik 42x60
- 10 - Četkice za PVC vođicu za roletne
- 11 - PVC lamelica
- 12 - Zakačka roletni za osovinu
- 13 - PVC odbojnik, graničnik za roletnu
- 14 - Aluminijumska lajsna za zaključavanje roletni
- 15 - PVC rolnica sa četkicom za mini rolo traku - gurtnu
- 16 - Rolo traka - gurtna
- 17 - PVC automat spoljašnji za mini rolo traku - gurtnu
- 18 - Osovina za oprugu
- 19 - Osovina za mrežu
- 20 - Mreža
- 21 - Zakačka gornja
- 22 - Zakačka donja PVC uvodnik za roletne i komarnik



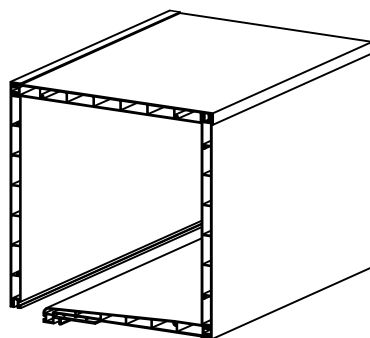
Termoizolovane aluminijumske kutije

147x147  
172x172  
195x195  
260x260



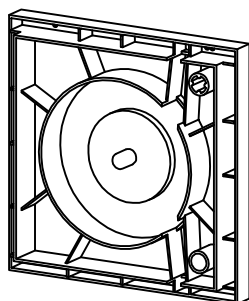
Aluminijumski bočni poklopci

147  
172  
195  
260



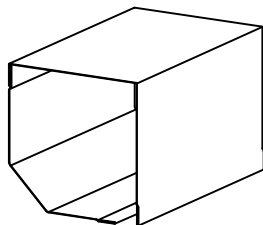
PVC kutije:

150x195  
195x195  
230x230



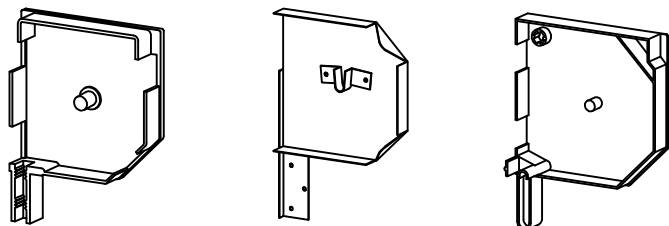
PVC bočni poklopci :

150x195  
195x195  
230x230



Kutije od pocinkovanog ili aluminijumskog lima

125x125	205x205
137x137	250x250
150x150	300x300
165x165	350x350
180x180	400x400



Bočni poklopci

Aluminijumski		Dekapirani lim		PVC
125	250	120	200	137
137	300	140	220	165
150		150	350	
165		160	400	
180		170		
205		180		

## 13. KOMARNICI

Komarnik protiv komaraca i raznih insekata, napravljena je od aluminijumskih i plastičnih delova koji su plastificirani po Rall karti.

Izrađuju se u sledećim bojama:

- bela,
- siva,
- čokolada,
- SMB.

Mreža je izrađena od "fiberglassa".

Rolo komarnik se izrađuje u sledećim varijantama:

- rolo komarnik za prozore,
- rolo komarnik za vrata ,
- fiksni komarnik za prozore.
- 

Rolo komarnik se karakteriše jednostavnim namotavanjem mreže na osovinu, nije potrebno skidanje istog prilikom pranja prozora i u zimskom periodu. Jednostavnim pomeranjem prema gore, mreža se namotava u kutiju koja štiti mrežicu od mraza i mehaničkih oštećenja.

Rolo komarnik za prozore pravi se od aluminijumskih plastificiranih elemenata.

Može se montirati na već postojeće prozore kao nadogradnja ili zajedno sa roletnom u istu kutiju.

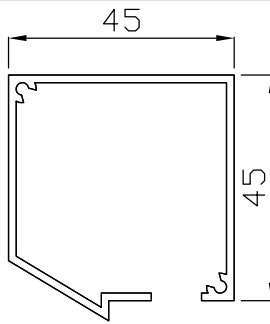
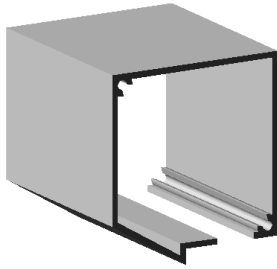
Rolo komarnik sa bočnim namotavanjem koristi se za vrata kao:

- jednodelni rolo komarnik i
- dvodelni rolo komarnik.

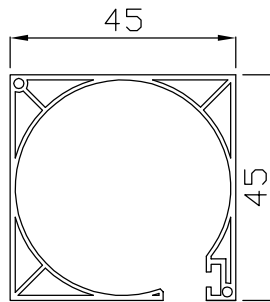
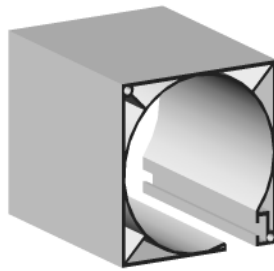
Rolo komarnik za vrata, montira se samo kao nadogradnja na postojeće prozore sa ili bez PVC, aluminijumskih roletni.

Rolo komarnik kod kliznih vrata zahteva malu nadogradnju rama.

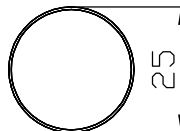
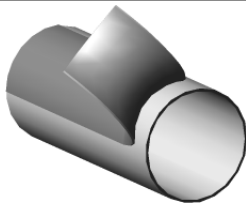




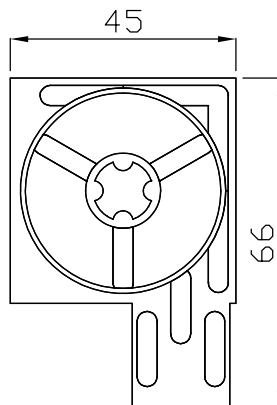
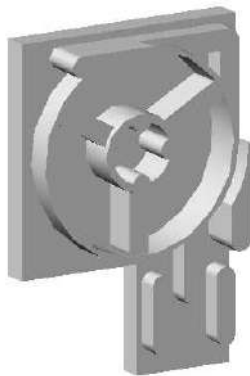
Aluminijumska kutija za mrežu za rolo komarnik.



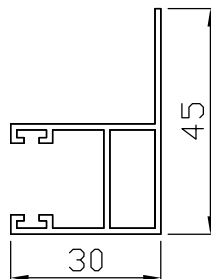
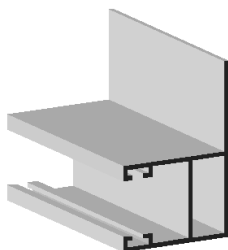
PVC kutija za mrežu za rolo komarnik.



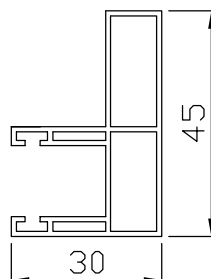
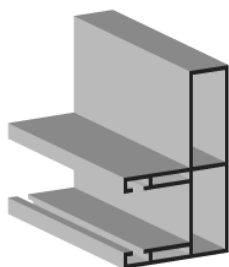
Aluminijumska osovina za mrežu za rolo komarnik.



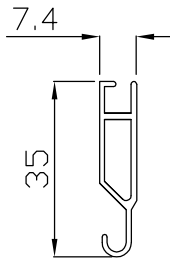
PVC bočni poklopac za rolo komarnik.



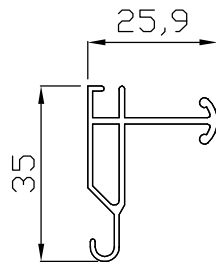
Aluminijumska vodica za mrežu za rolo komarnik.



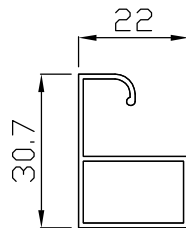
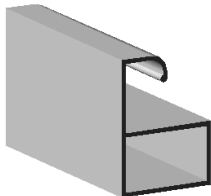
PVC vodica za mrežu za rolo komarnik.



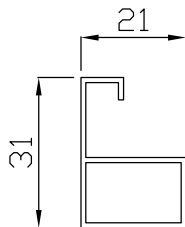
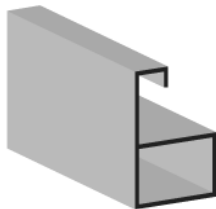
Aluminijumska gornja zakačka bez pera za rolo komarnik.



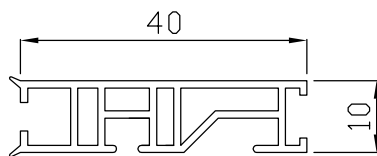
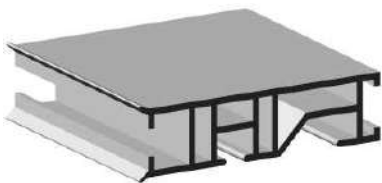
Aluminijumska gornja zakačka sa perom za rolo komarnik.



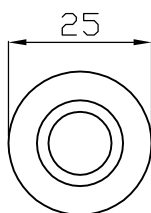
Aluminijumska donja zakačka za rolo komarnik.



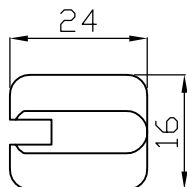
PVC donja zakačka za rolo komarnik.



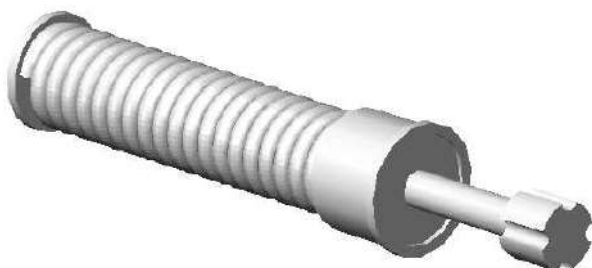
PVC zakacka za rolo komarnik



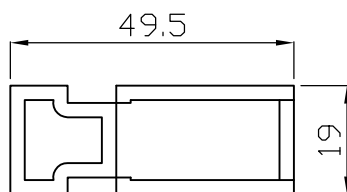
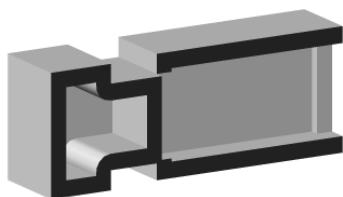
PVC završetak osovine  
za rolo komarnik.



PVC čep za gornju zakačku  
za rolo komarnik.



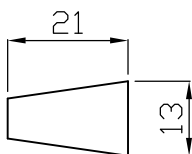
Opruga sa osovinom  
za rolo komarnik.



PVC spojka zakačke i vođice  
za rolo komarnik.



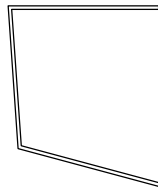
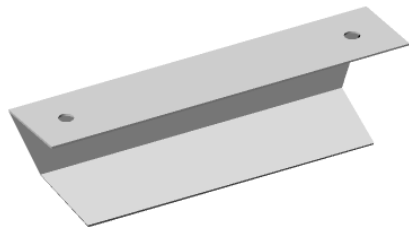
PVC čep za rupu  $\varnothing 8$  za  
rolo komarnik.



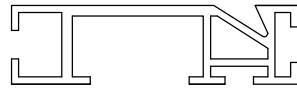
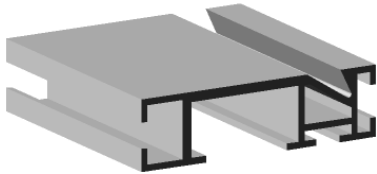
PVC visak za rolo komarnik.



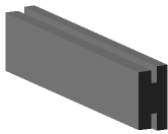
PVC bužir za mrežu  
za rolo komarnik.



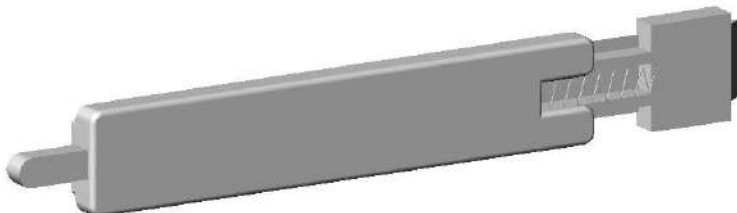
Ručica za dvodelni rolo komarnik.  
Napravljena od aluminijumskog lima,  
plastificirana.



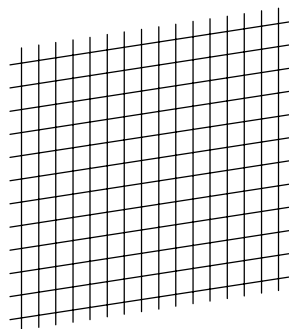
Aluminijumska bočna lajsna za  
dvodelni komarnik



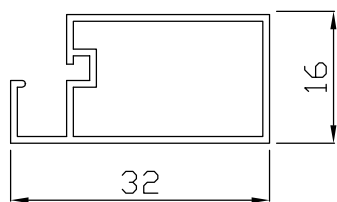
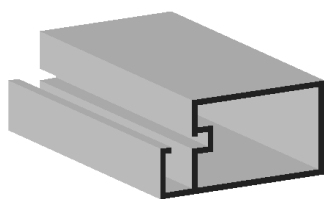
Zaptivač sa magnetom za  
dvodelni komarnik



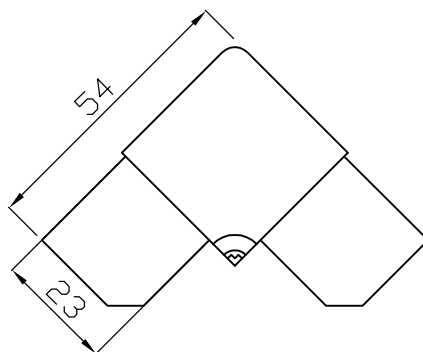
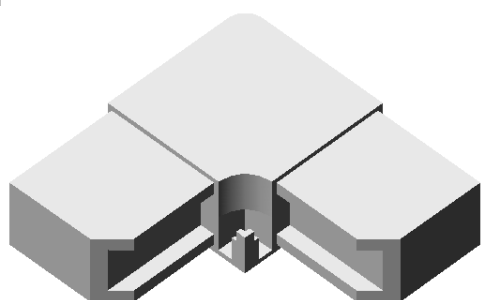
Zasun za dvodelni komarnik



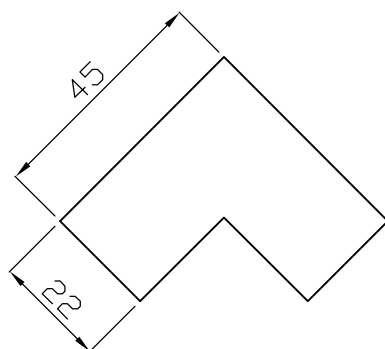
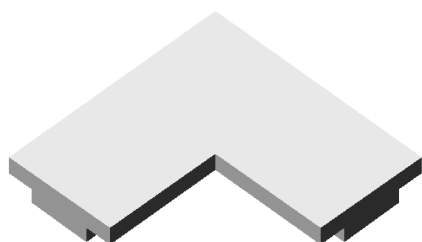
Mreža za komarnik.



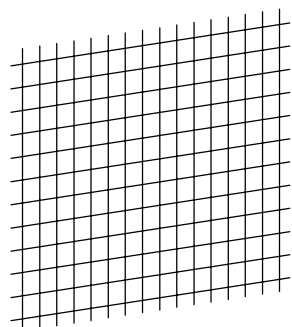
PVC lajsna za PVC fiksni komarnik.



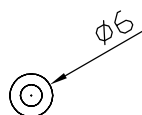
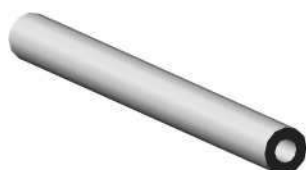
PVC ugao spoljašnji za PVC fiksni komarnik.



PVC ugao unutrašnji za PVC fiksni komarnik.



Mreža za komarnik.



PVC bužir za PVC fiksni komarnik.

## 14. HARMONIKA VRATA I TUŠ KABINE

PVC harmonika vrata se prave od tvrdog PVC-a kao jednodelna i dvodelna. Služe kao pregradni zidovi, a njihova funkcija je zimi radi bržeg zagrevanja stanova, lokala, hotela kao i leti radi smanjenja promaja.

Kod manjih prostorija harmonika vrata imaju značajnu funkciju jer zauzimaju mali prostor kod otvaranja ostava, plakara, WC-a, podruma i drugih mesta.

Izrađuju se kao:

- jednodelna,
- dvodelna,
- viseća sa donjim klizačima i
- viseća bez donjih klizača.

Isporučuju se u dimenzijama po želji kupaca, u sledećim bojama: bela, drvo, mahagoni i čokolada.

Tuš kabine se prave od tvrdog PVC-a i mogu biti:

- providne i
- neprovidne.

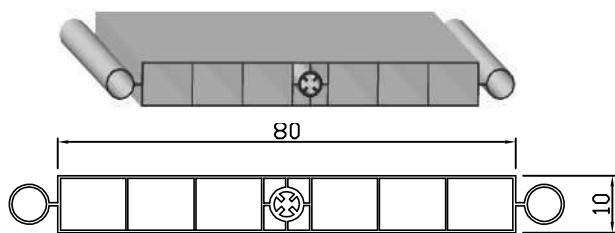
Montiraju se kao :

- jednodelna, prednji deo na tuš kadu
- dvodelna "L", na tuš kadu
- dvodelna "U", na tuš kadu
- trodelna "U", na tuš kadu
- jednodelna, prednji deo na kadu
- dvodelna, prednji deo na kadu
- dvodelna "L", na kadu
- trodelna "L", na kadu.

Prave se i u drugim kombinacijama po zahtevu kupaca.

Izrađuju se u sledećim bojama:

- bela neprovidna i
- bela providna.



PVC glavna lajsna za harmonika vrata.

Dužina ekstrudiranja: 4,5 mm



PVC polovina lajsna za harmonika vrata.

Dužina ekstrudiranja: 4,5 mm



PVC spojka lajsna za spajanje glavne lajsne i polovine lajsne kod harmonika vrata i tuš kabina.

Dužina ekstrudiranja: 4,5 mm za H.V.  
Dužina ekstrudiranja: 5,4 mm za T.K.



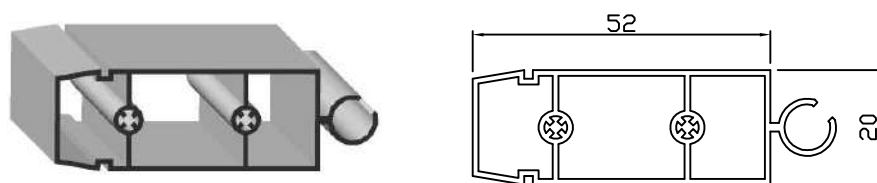
PVC fiksna lajsna za harmonika vrata i tuš kabine.

Dužina ekstrudiranja: 4,5 mm za H.V.  
Dužina ekstrudiranja: 5,4 mm za T.K.



PVC početna lajsna za harmonika vrata i tuš kabine.

Dužina ekstrudiranja: 4,5 mm za H.V.  
Dužina ekstrudiranja: 5,4 mm za T.K.



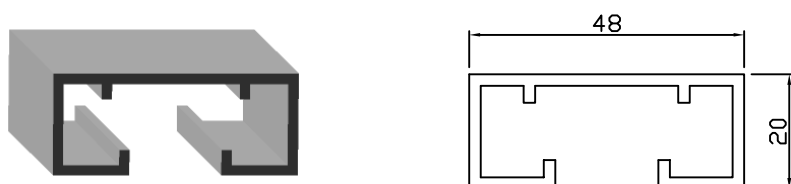
PVC završna lajsna za harmonika vrata.

Dužina ekstrudiranja: 4,5 mm



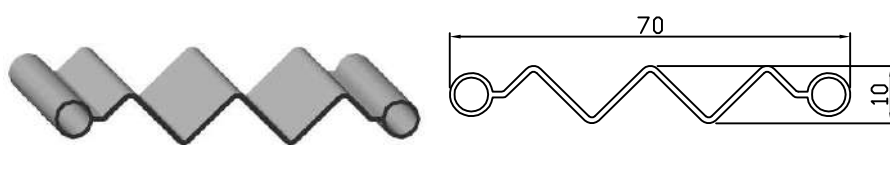
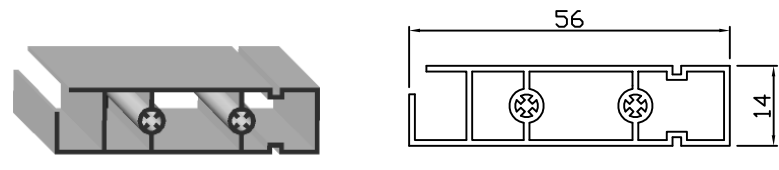

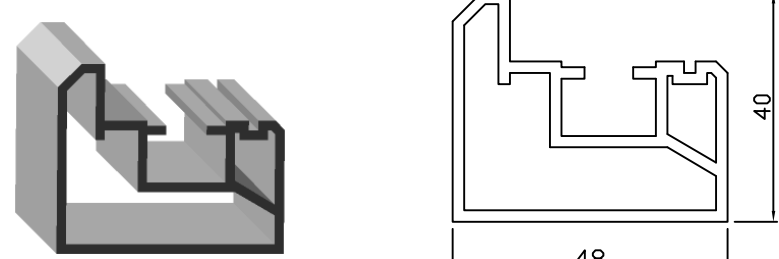

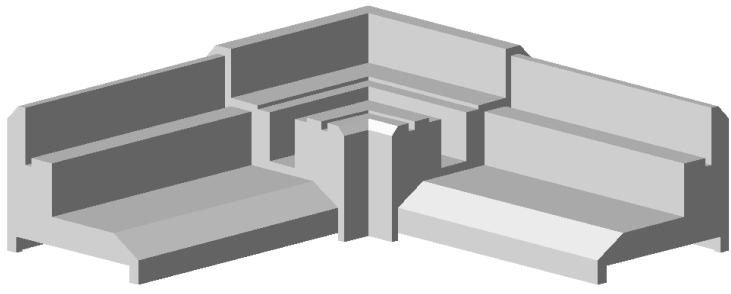
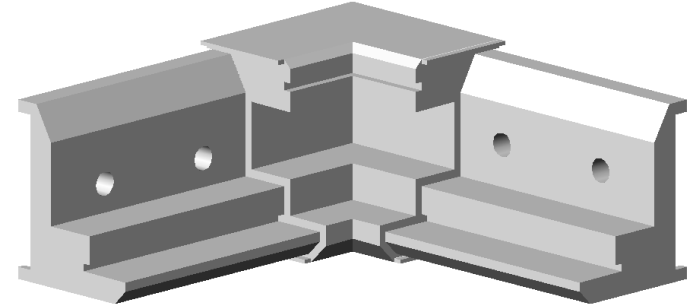
PVC završno-ukrasna lajsna za harmonika vrata.

Dužina ekstrudiranja: 4,5 mm



PVC vođica lajsna za harmonika vrata.

Dužina ekstrudiranja: 4,5 mm

	<p>PVC glavna lajsna za tuš kabine providna.</p> <p>Dužina ekstrudiranja: 5,4 mm</p>
	<p>PVC završna lajsna za tuš kabine.</p> <p>Dužina ekstrudiranja: 5,4 mm</p>
	<p>PVC završno-ukrasna lajsna za tuš kabine.</p> <p>Dužina ekstrudiranja: 5,4 mm</p>
	<p>PVC vođica lajsna za tuš kabine.</p> <p>Dužina ekstrudiranja: 5,4 mm</p>
	<p>PVC ugaona završno-ukrasna lajsna za tuš kabine.</p> <p>Dužina ekstrudiranja: 5,4 mm</p>
	<p>Ugao levo-desno za tuš kabine.</p> <p>Napravljen od polietilena.</p>
	<p>Ugao gore-dole za tuš kabine.</p> <p>Napravljen od polietilena.</p>





Čep za spojku lajsnu za harmonika vrata i tuš kabine.

Napravljen od polietilena.



Gornji klizač za harmonika vrata.

Napravljen od polietilena.



Donji klizač za harmonika vrata.

Napravljen od polietilena.



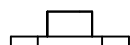
Gornji klizač za tuš kabine.

Napravljen od polietilena.



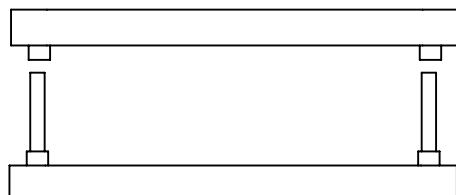
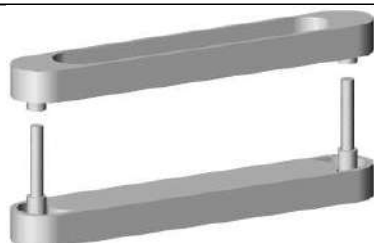
Donji klizač za tuš kabine.

Napravljen od polietilena.



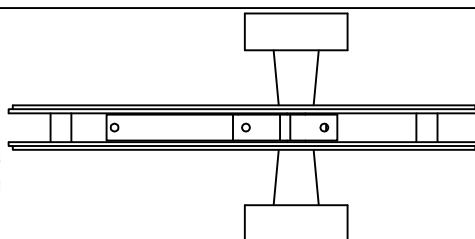
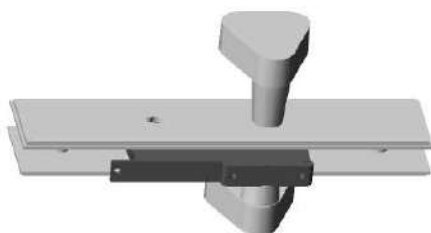
Gornji i donji klizač za završnu lajsnu na tuš kabini.

Napravljen od polietilena.



Ručica za tuš kabinu.

Napravljen od polietilena.

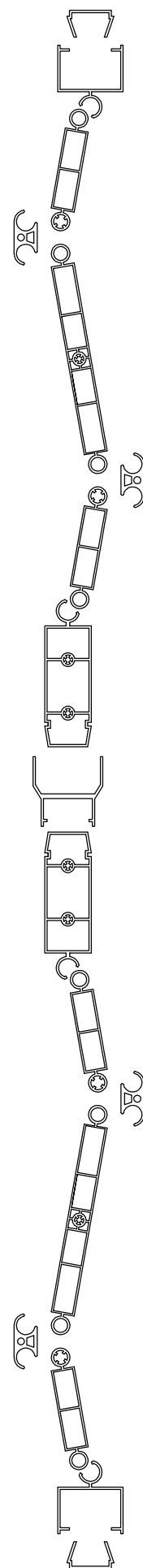
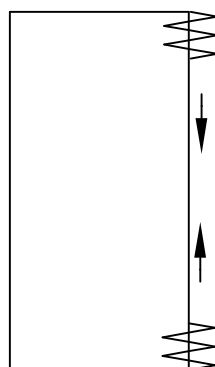
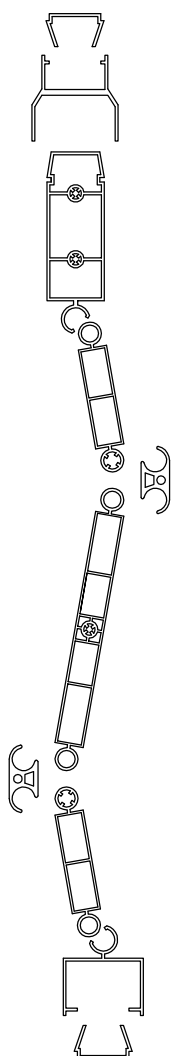
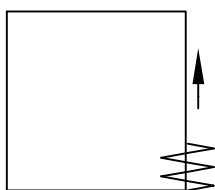


Brava sa ključem za harmonika vrata i tuš kabine.

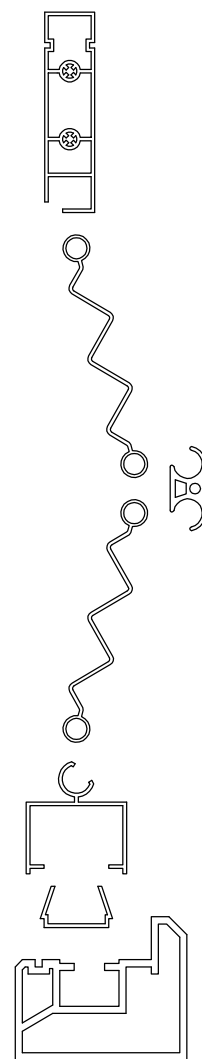
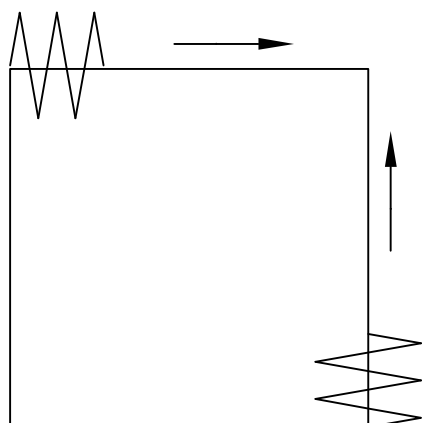
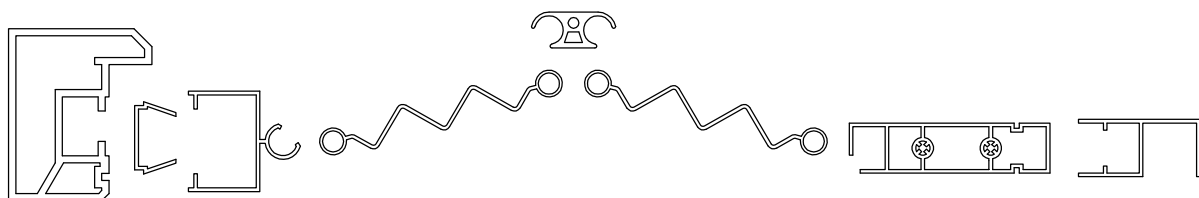
Napravljen od polietilena.



# KOMBINACIJE POSTAVLJANJA HARMONIKA VRATA



# KOMBINACIJE POSTAVLJANJA TUŠ KABINA



# KOMBINACIJE POSTAVLJANJA TUŠ KABINA

