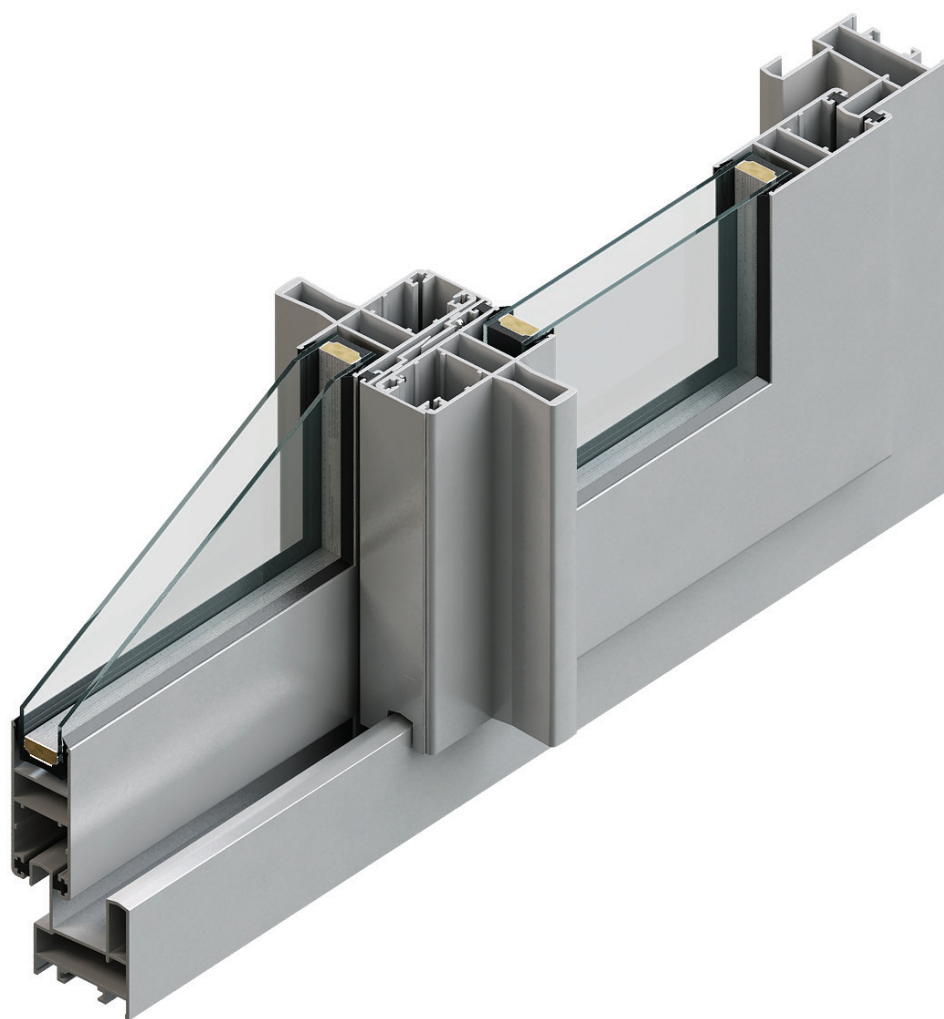


FEAL



HARMO

KLIZNI PROZORI I VRATA
SLIDING WINDOWS AND DOORS

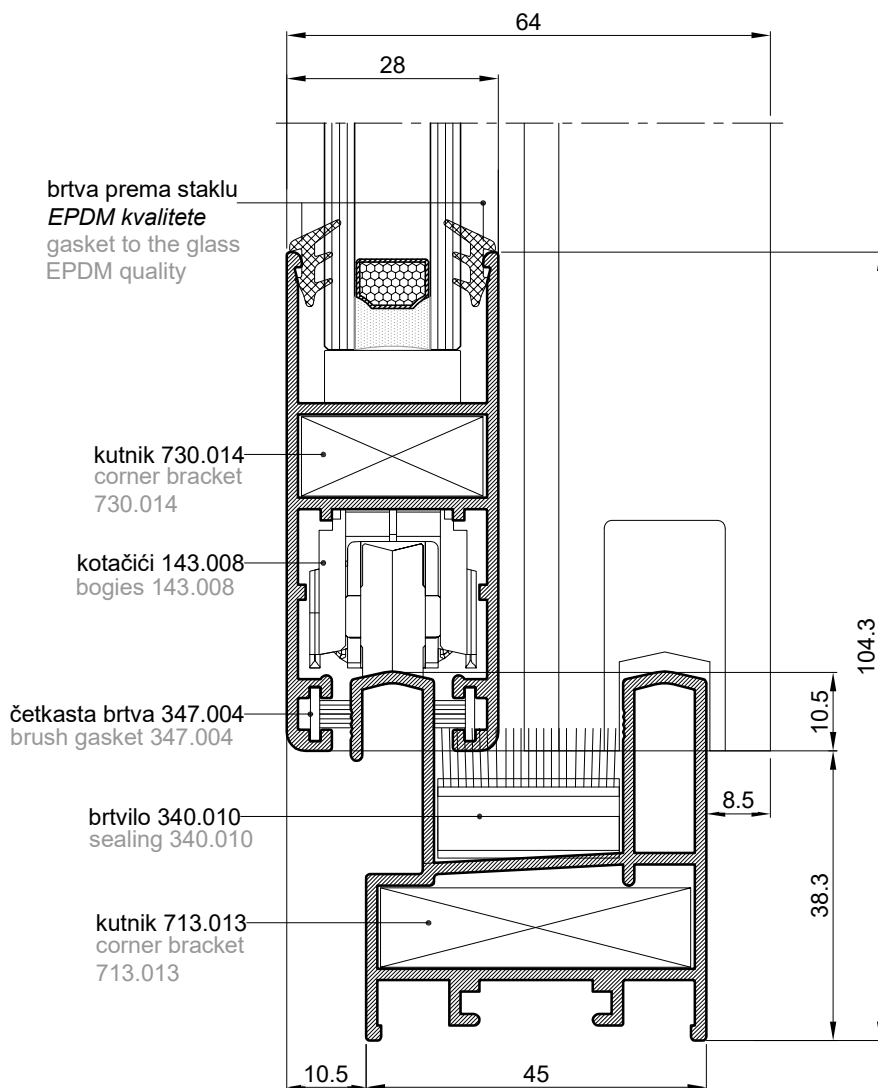
SADRŽAJ CONTENT

01	ZNAČAJKE SISTEMA	401.01.000-003
01	SYSTEM CHARACTERISTICS	401.01.000-003
02	ISPITIVANJA I CERTIFIKATI	401.02.000-005
02	TESTING AND CERTIFICATES	401.02.000-005
03	PROFILI	401.03.000-011
03	PROFILES	401.03.000-011
04	VEZNI ELEMENTI	401.04.000-003
04	CONNECTION ELEMENTS	401.04.000-003
05	PVC ELEMENTI	401.05.000-003
05	PVC ELEMENTS	401.05.000-003
06	MEHANIZMI	401.06.000-003
06	MECHANISMS	401.06.00-003
07	BRTVILA	401.07.000-003
07	GASKETS	401.07.000-003
08	DODACI	401.08.000-003
08	ACCESSORIES	401.08.000-003
09	PRIKAZ STAKLJENJA	401.09.000-003
09	GLAZING	401.09.000-003
10	PRESJECI	401.10.000-017
10	CROSS SECTIONS	401.10.000-017
11	OBRADA I MONTAŽA	401.11.000-019
11	PROCESSING AND MONTAGE	401.11.000-019
12	REZNE LISTE	401.12.000-007
12	CUTTING LISTS	401.12.000-007

Značajke sistema

System characteristics

Serija profila za klizne prozore i vrata HARMO
 Series of profiles for sliding windows and doors **HARMO**



Serija je namjenjena za izradu kliznih prozora i vrata na objektima gdje se ne traži visok stupanj toplinske izolacije.

Odlikuje se jednostavnošću, raznovrsnim tipologijama izrade te je estetski prihvatljiva sa modernim linijama profila.

Struktura krila omogućava ugradnju okova sa ključanjem u više točaka.

Nadopunjuje se na okvire serija 45 Mill čime je omogućena izvedba većih i tipološki raznovrsnih stijena.

Series is intended to be used in production sliding windows and doors on facilities which do not require high level of thermal insulation.

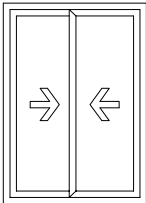
It is characterized with simplicity, variety of production typology and it is aesthetically acceptable with modern profile contours.

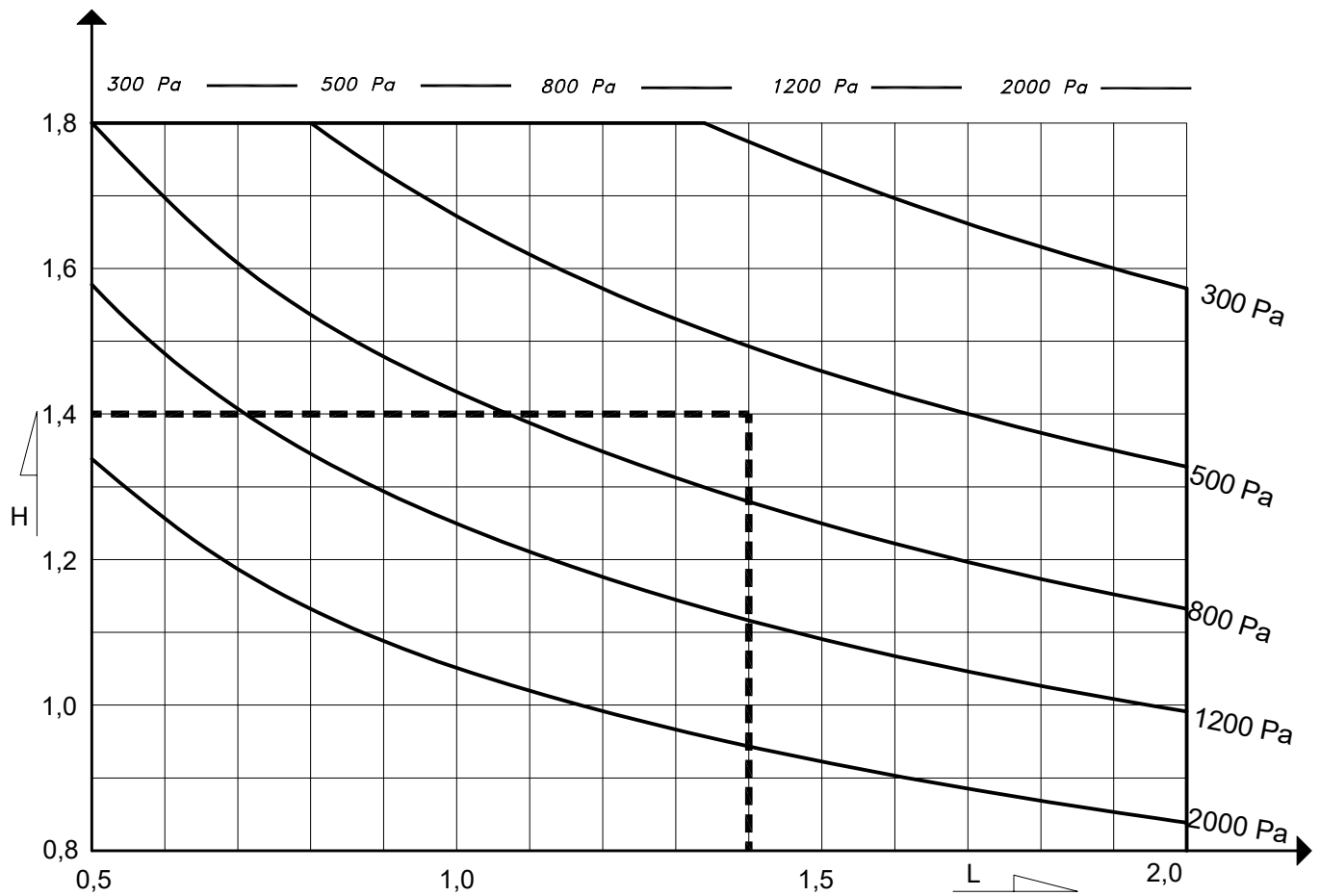
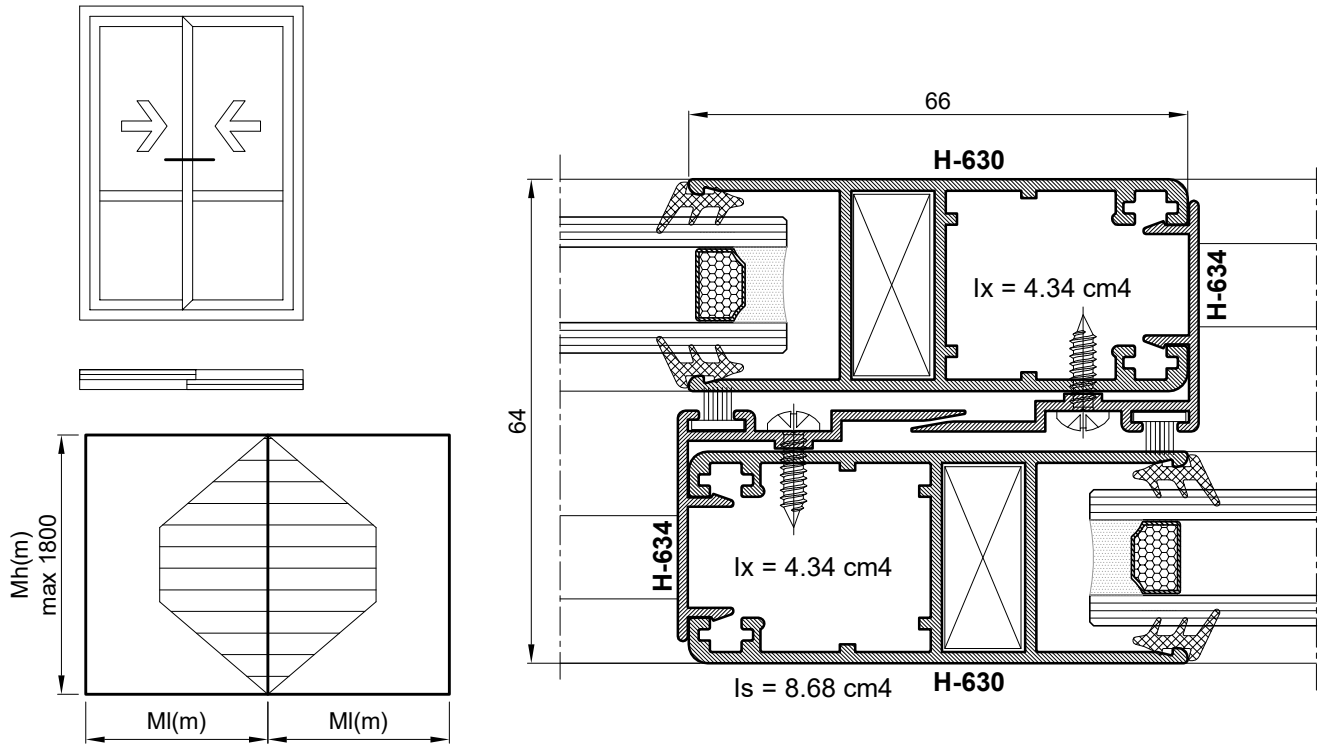
Sash structure enables hardware installation with locking in multiple points.

It is complemented with frames of 45 Mill series which enables construction of larger and typologically different walls.

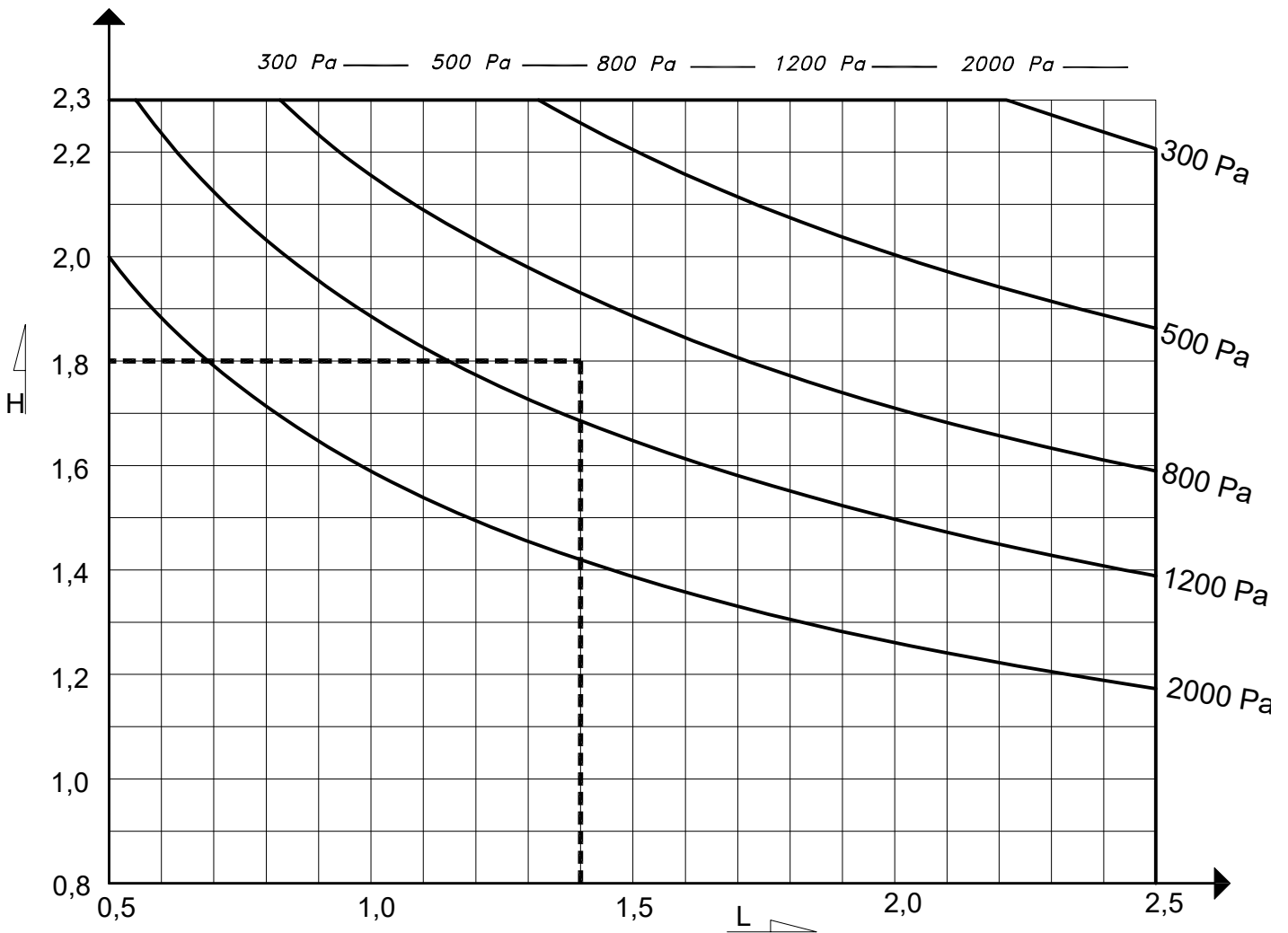
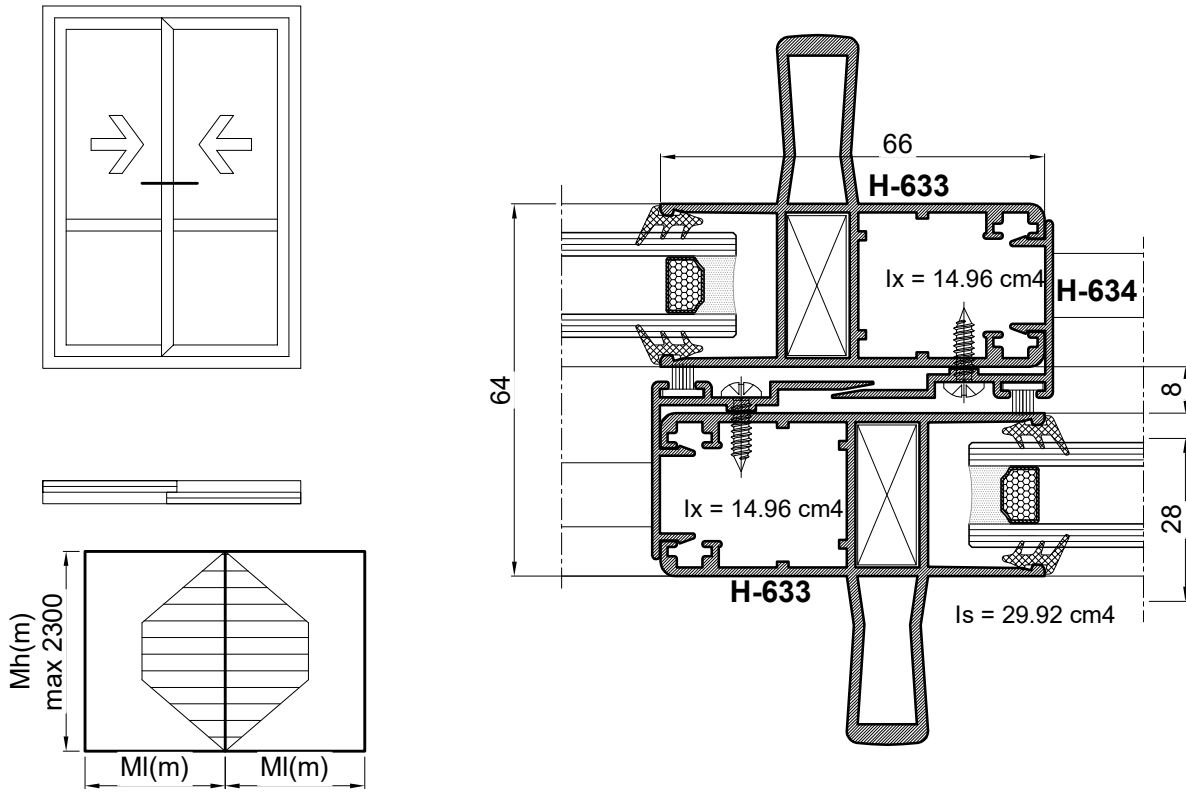
Ispitivanja i certifikati

Testings and certificates

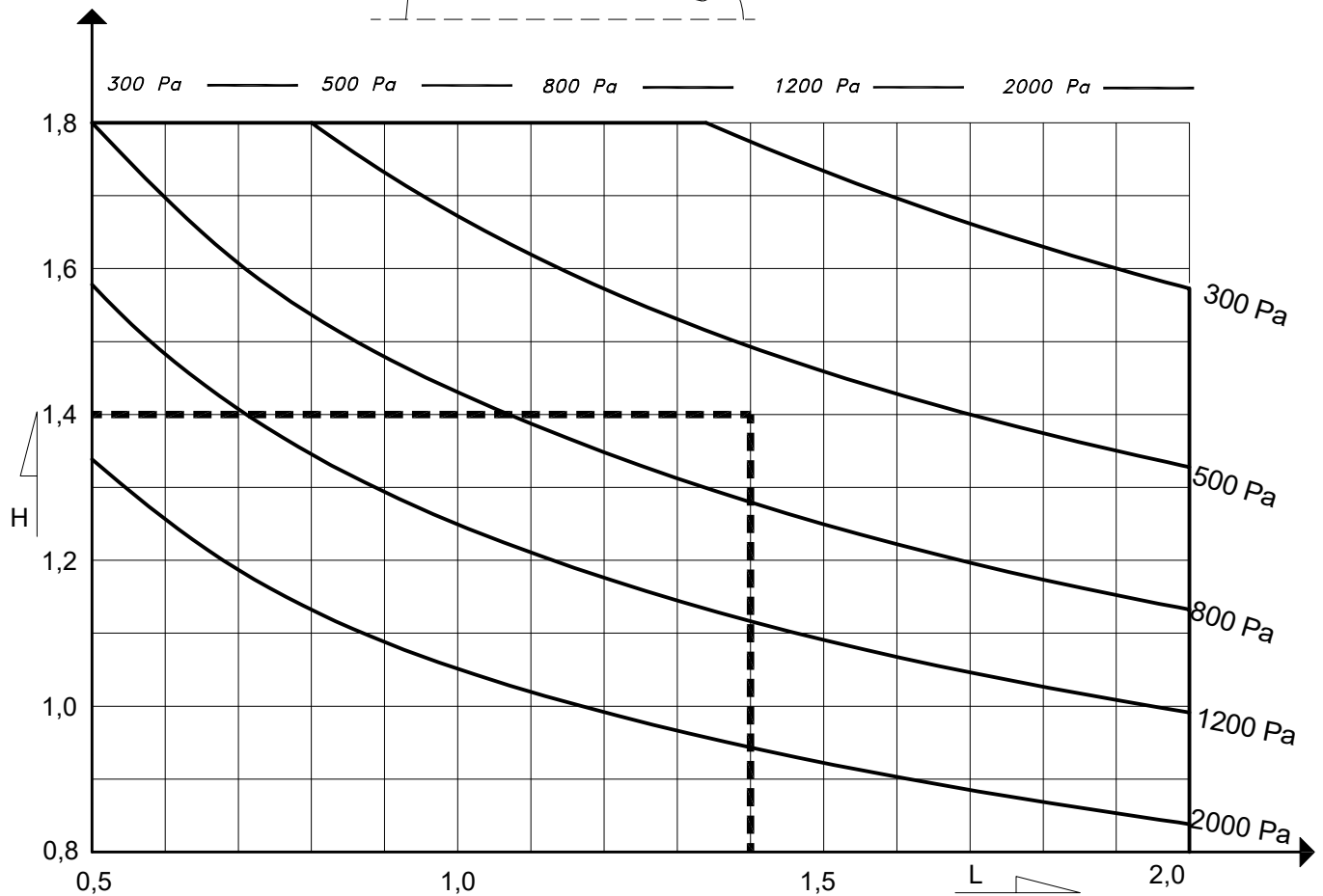
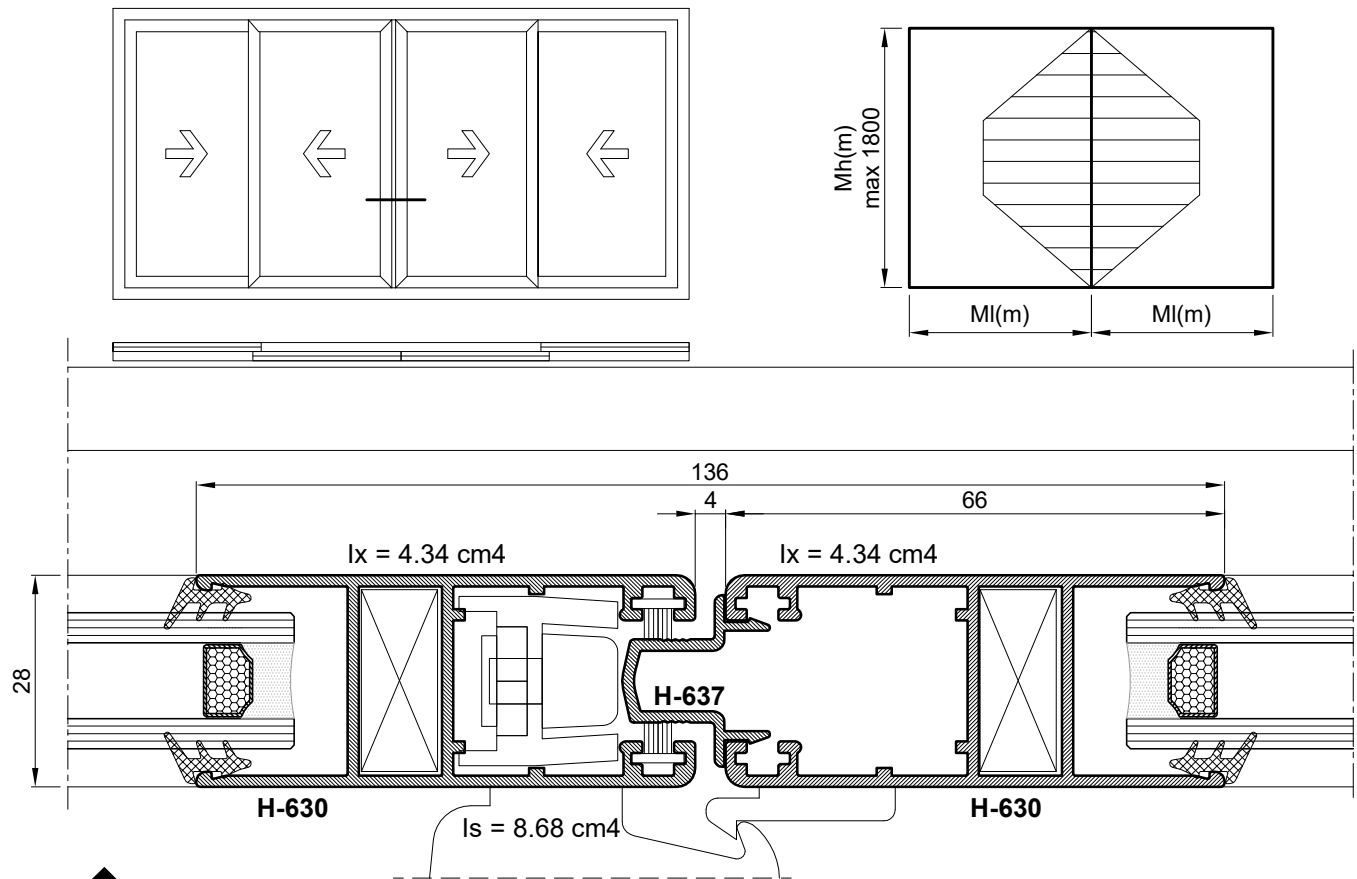
ISPITIVANJA I CERTIFIKATI		
Vrsta ispitivanja		
Vodonepropusnost EN 12208	6A	
Otpornost na opterećenje vjetrom EN 12210	B3	



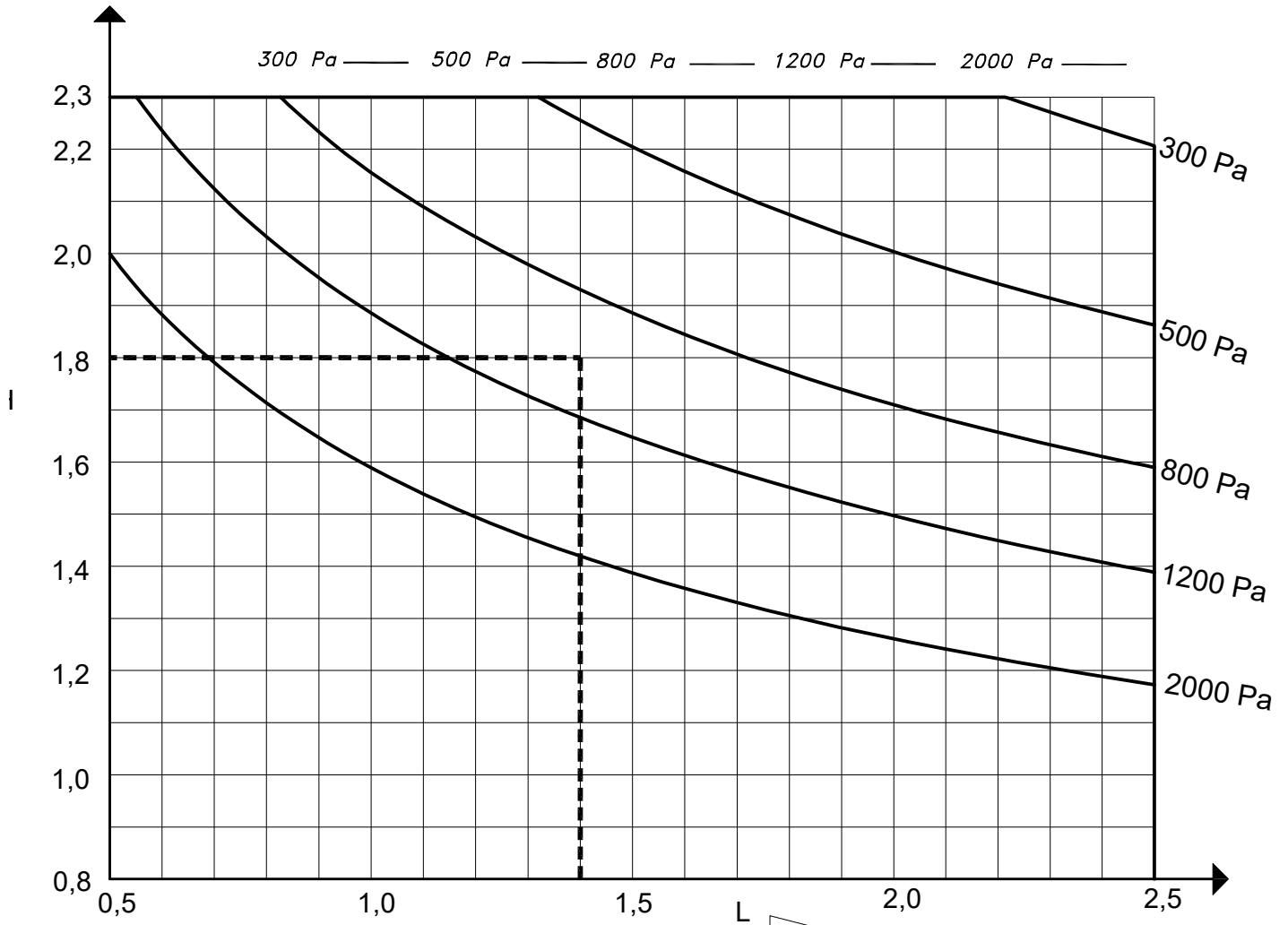
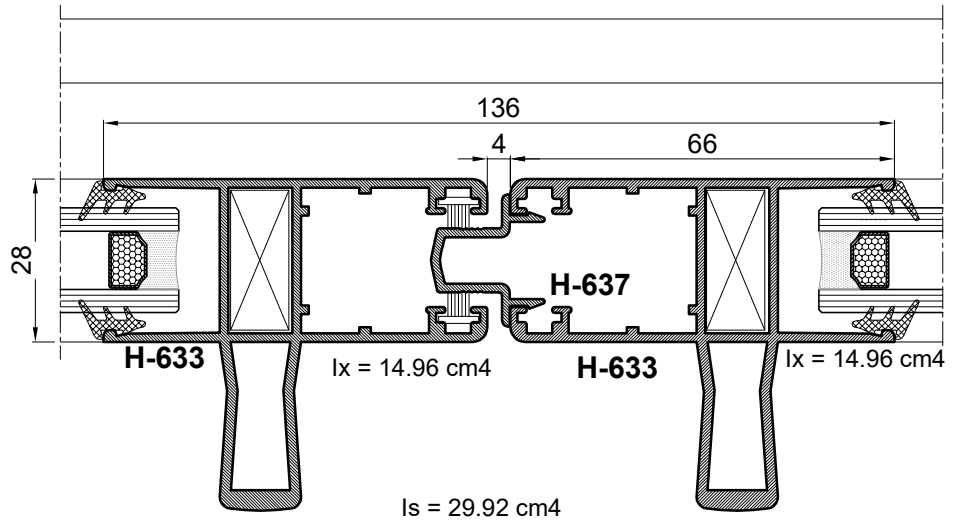
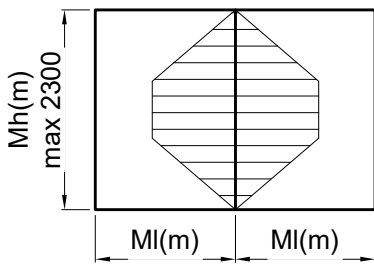
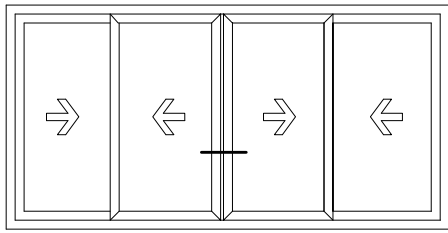
primjer: $H \times L = 1400 \times 1400 \Rightarrow 500 \text{ Pa}$
 example: $H \times L = 1400 \times 1400 \Rightarrow 500 \text{ Pa}$



primjer: $H \times L = 1800 \times 1400 \Rightarrow 800 \text{ Pa}$
 example: $H \times L = 1800 \times 1400 \Rightarrow 800 \text{ Pa}$

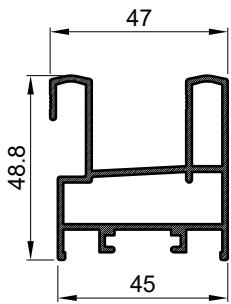


primjer: $H \times L = 1400 \times 1400 \Rightarrow 500 \text{ Pa}$
 example: $H \times L = 1400 \times 1400 \Rightarrow 500 \text{ Pa}$

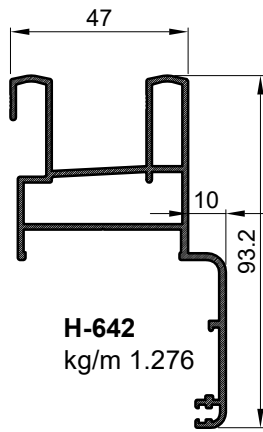


primjer: HxL= 1800x1400 => 800 Pa
example: HxL= 1800x1400 => 800 Pa

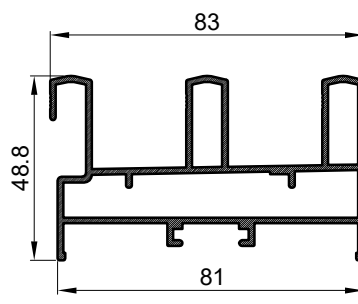
Profili
Profiles



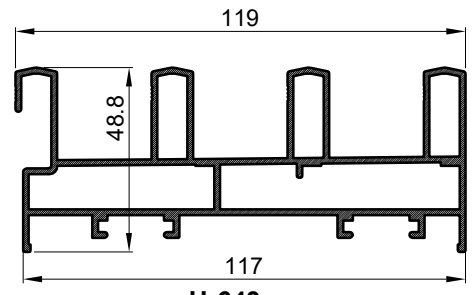
H-631
kg/m 1.033



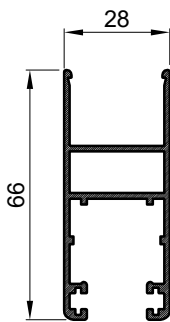
H-642
kg/m 1.276



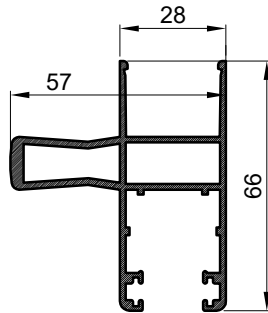
H-644
kg/m 1.569



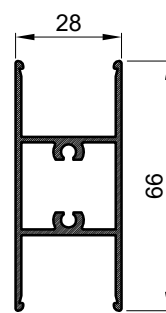
H-643
kg/m 2.214



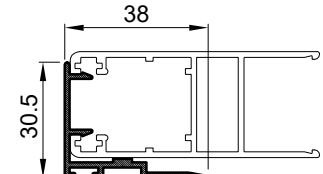
H-630
kg/m 0.861



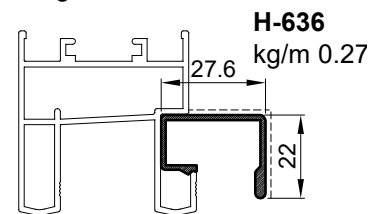
H-633
kg/m 1.233



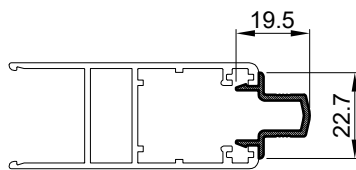
H-635
kg/m 0.853



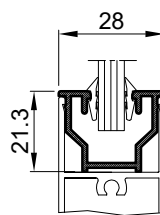
H-634
kg/m 0.309



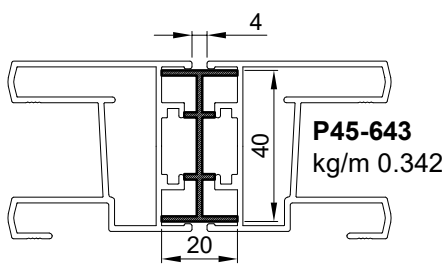
H-636
kg/m 0.27



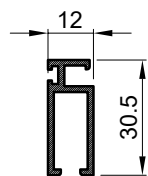
H-637
kg/m 0.210



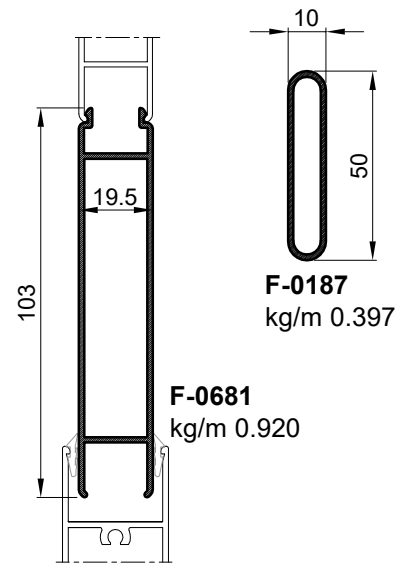
H-638
kg/m 0.291



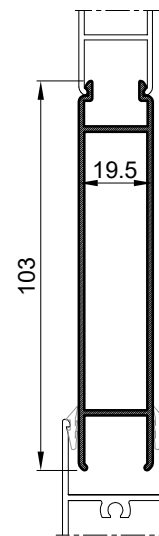
P45-643
kg/m 0.342



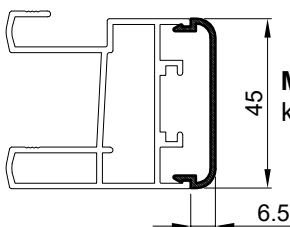
H-639
kg/m 0.323



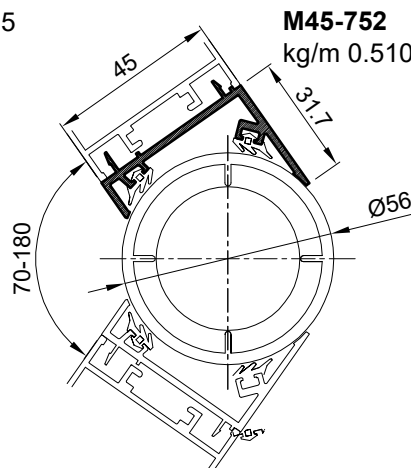
F-0187
kg/m 0.397



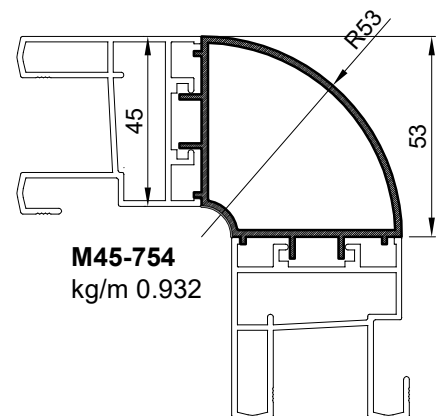
F-0681
kg/m 0.920



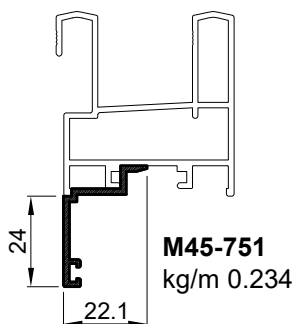
M45-756
kg/m 0.225



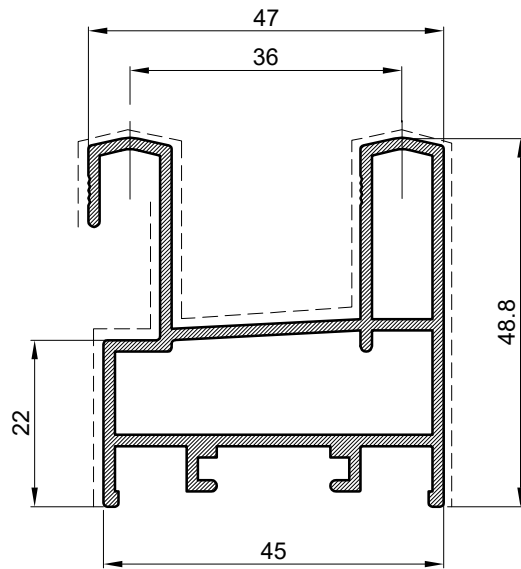
M45-752
kg/m 0.510



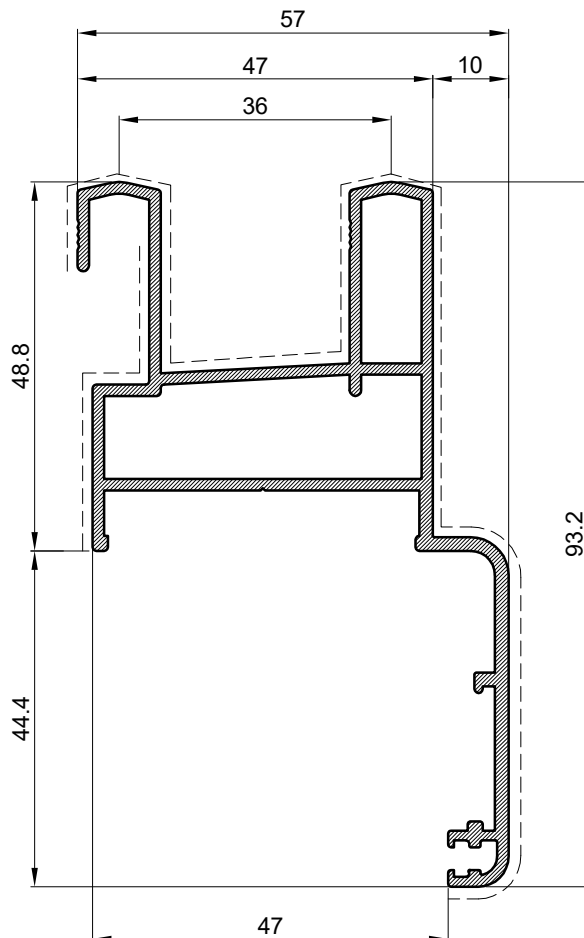
M45-754
kg/m 0.932



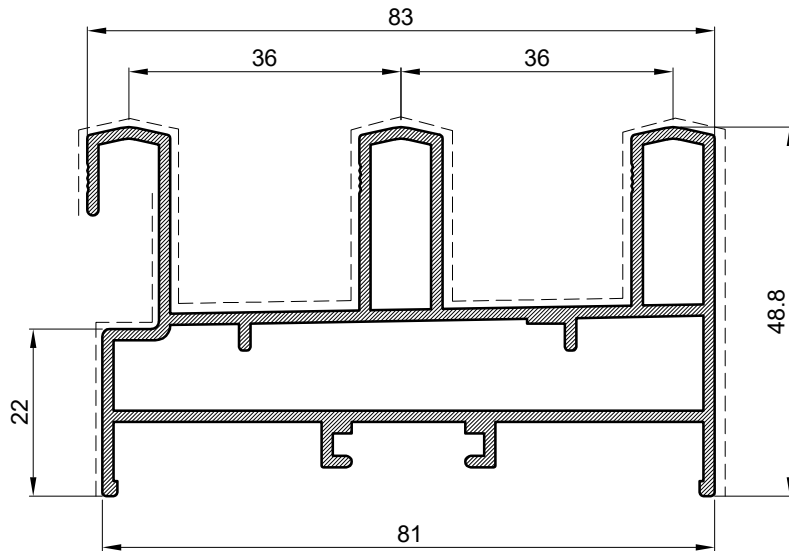
M45-751
kg/m 0.234



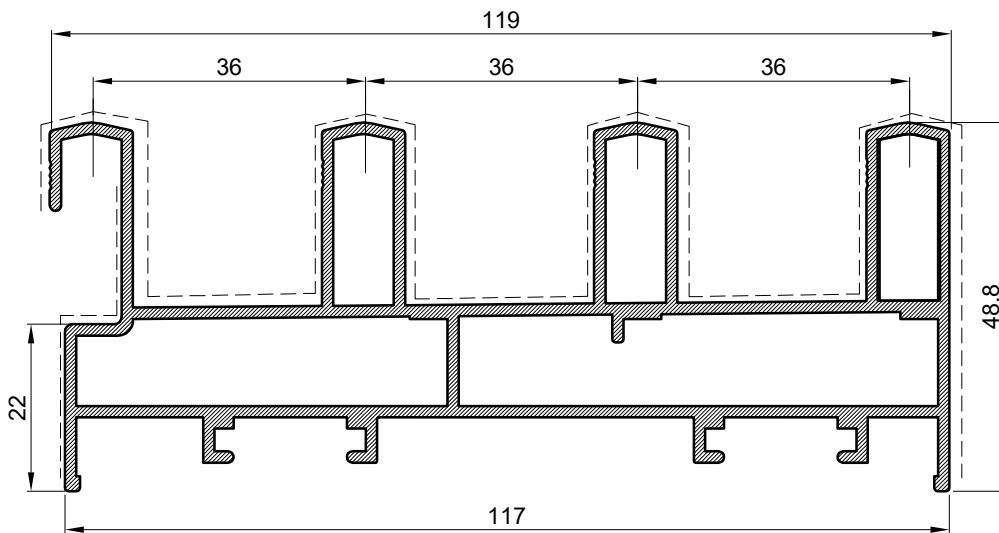
Dvostazni profil rama Two-rail frame profile		
Art.Br. Art.Nr.	H-631	
Težina Weight	kg/m'	1.033
Opseg Perimeter	mm	320
Moment inerције Moments of inertia	I _x (cm ⁴)	8.08
	I _y (cm ⁴)	10.24
	W _x (cm ³)	3.13
	W _y (cm ³)	4.02
L	mm	6500



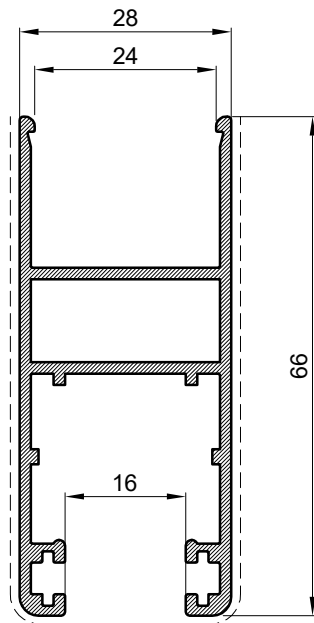
Dvostazni profil rama Two-rail frame profile		
Art.Br. Art.Nr.	H-642	
Težina Weight	kg/m'	1.276
Opseg Perimeter	mm	429
Moment inercije Moments of inertia	I _x (cm ⁴)	29.10
	I _y (cm ⁴)	17.56
	W _x (cm ³)	5.10
	W _y (cm ³)	5.32
L	mm	6500



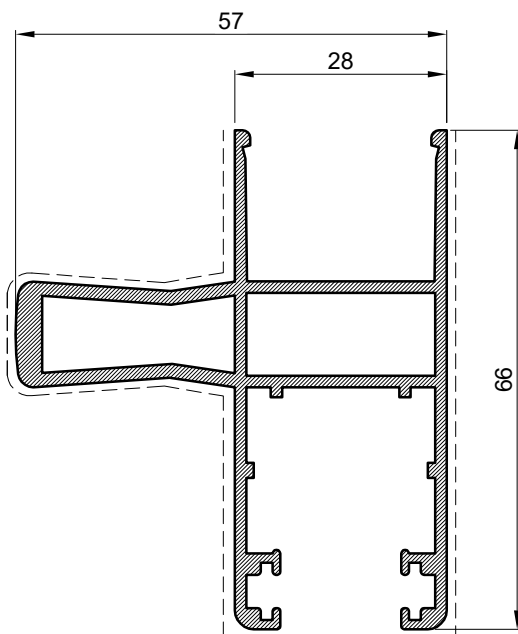
Trostazni profil rama Three-rail frame profile		
Art.Br. Art.Nr.	H-644	
Težina Weight	kg/m'	1.569
Opseg Perimeter	mm	440
Moment inercije	I _x (cm ⁴)	10.55
	I _y (cm ⁴)	42.68
Moments of inertia	W _x (cm ³)	4.34
	W _y (cm ³)	9.77
L	mm	6500



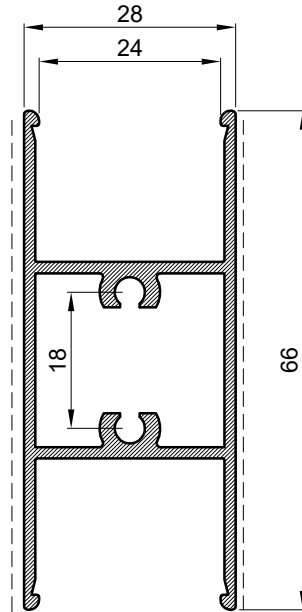
Četverostazni profil rama Four-rail frame profile		
Art.Br. Art.Nr.	H-643	
Težina Weight	kg/m'	2.214
Opseg Perimeter	mm	590
Moment inercije	I _x (cm ⁴)	14.63
	I _y (cm ⁴)	117.31
Moments of inertia	W _x (cm ³)	5.88
	W _y (cm ³)	18.89
L	mm	6500



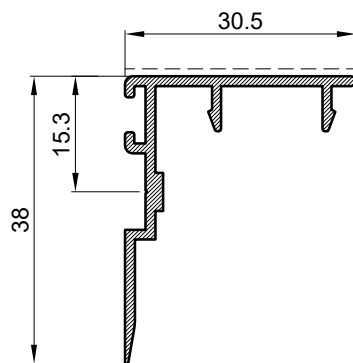
Profil krila Sash profile		
Art.Br. Art.Nr.	H-630	
Težina Weight	kg/m'	0.861
Opseg Perimeter	mm	347
Moment inercije	I _x (cm ⁴)	10.65
	I _y (cm ⁴)	4.34
Moments of inertia	W _x (cm ³)	3.05
	W _y (cm ³)	3.10
L	mm	6500



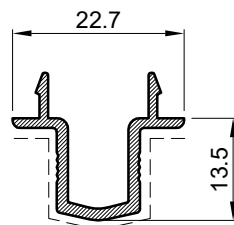
Ojačani profil krila Reinforcement sash profile		
Art.Br. Art.Nr.	H-633	
Težina Weight	kg/m'	1.233
Opseg Perimeter	mm	404
Moment inercije	I _x (cm ⁴)	11.60
	I _y (cm ⁴)	14.96
Moments of inertia	W _x (cm ³)	3.47
	W _y (cm ³)	4.46
L	mm	6500



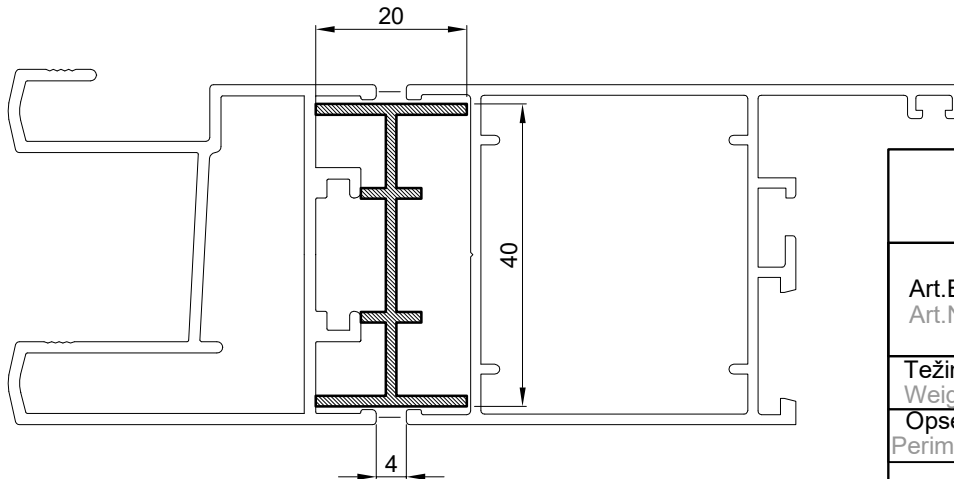
Prečka Mullion		
Art.Br. Art.Nr.	H-635	
Težina Weight	kg/m'	0.853
Opseg Perimeter	mm	270
Moment inercije	I _x (cm ⁴)	8.74
	I _y (cm ⁴)	3.90
Moments of inertia	W _x (cm ³)	2.65
	W _y (cm ³)	2.79
L	mm	6500



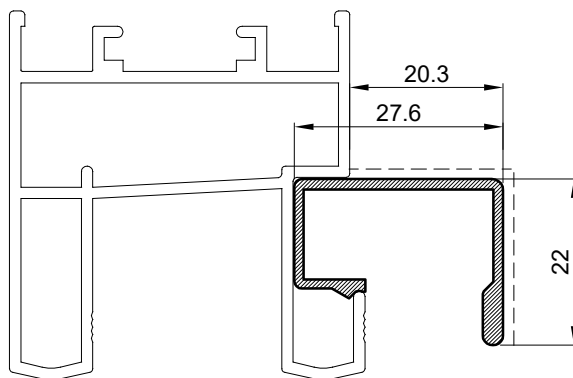
Profil Profile		
Art.Br. Art.Nr.	H-634	
Težina Weight	kg/m'	0.309
Opseg Perimeter	mm	177
Moment inercije	I _x (cm ⁴)	1.29
	I _y (cm ⁴)	0.98
Moments of inertia	W _x (cm ³)	0.46
	W _y (cm ³)	0.45
L	mm	6500



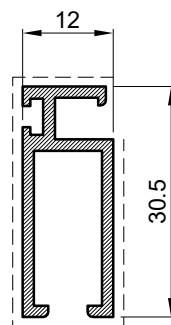
Profil Profile		
Art.Br. Art.Nr.	H-637	
Težina Weight	kg/m'	0.210
Opseg Perimeter	mm	114
Moment inercije	I _x (cm ⁴)	0.24
	I _y (cm ⁴)	0.27
Moments of inertia	W _x (cm ³)	0.23
	W _y (cm ³)	0.24
L	mm	6500



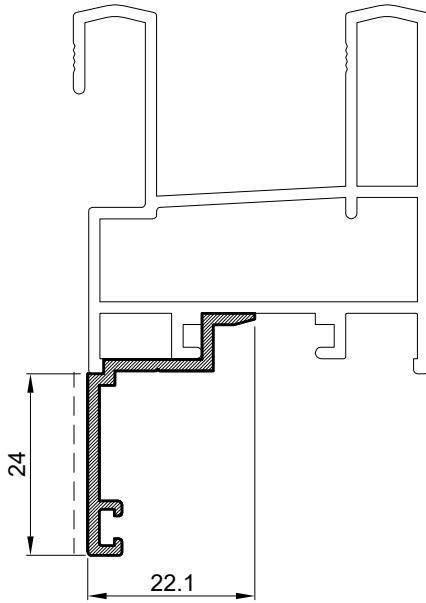
Profil Profile		
Art.Br. Art.Nr.	P45-643	
Težina Weight	kg/m'	0.342
Opseg Perimeter	mm	184
Moment inercije	Ix (cm ⁴)	2.81
	Iy (cm ⁴)	0.20
Moments of inertia	Wx (cm ³)	1.41
	Wy (cm ³)	0.20
L	mm	6500



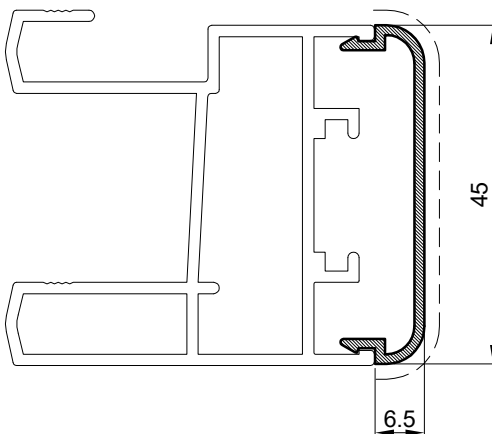
Okapnica-vodilica komarica Drip cap-guide mosquito net		
Art.Br. Art.Nr.	H-636	
Težina Weight	kg/m'	0.277
Opseg Perimeter	mm	142.00
L	mm	6500



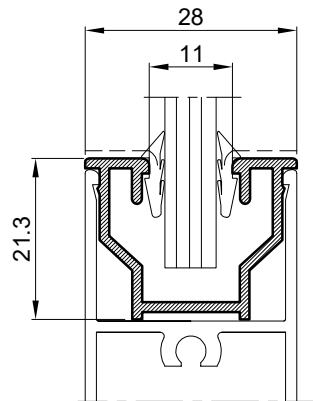
Kriilo komarice Sash of mosquito net		
Art.Br. Art.Nr.	H-639	
Težina Weight	kg/m'	0.323
Opseg Perimeter	mm	161.00
L	mm	6500



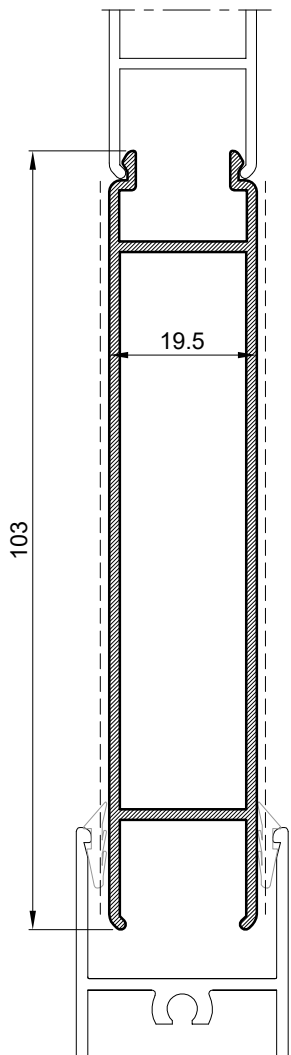
Profil Profile		
Art.Br. Art.Nr.	M45-751	
Težina Weight	kg/m'	0.234
Opseg Perimeter	mm	122.00
L	mm	6500



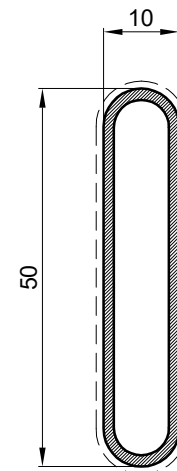
Pokrivni profil Shroud profile		
Art.Br. Art.Nr.	M45-756	
Težina Weight	kg/m'	0.225
Opseg Perimeter	mm	132.00
L	mm	6500



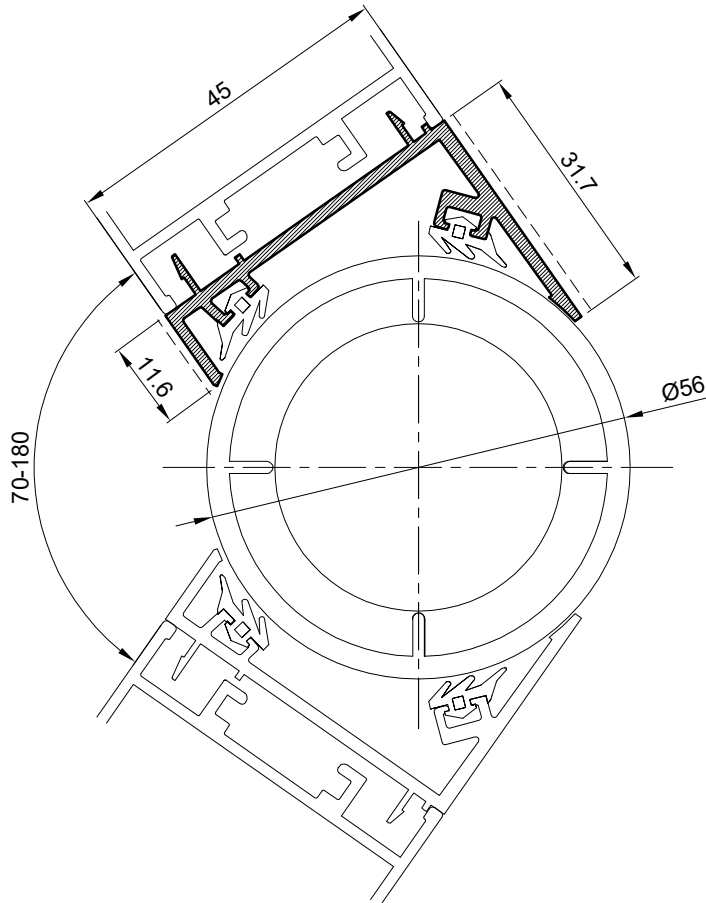
Profil Profile		
Art.Br. Art.Nr.	H-638	
Težina Weight	kg/m'	0.291
Opseg Perimeter	mm	167.00
L	mm	6500



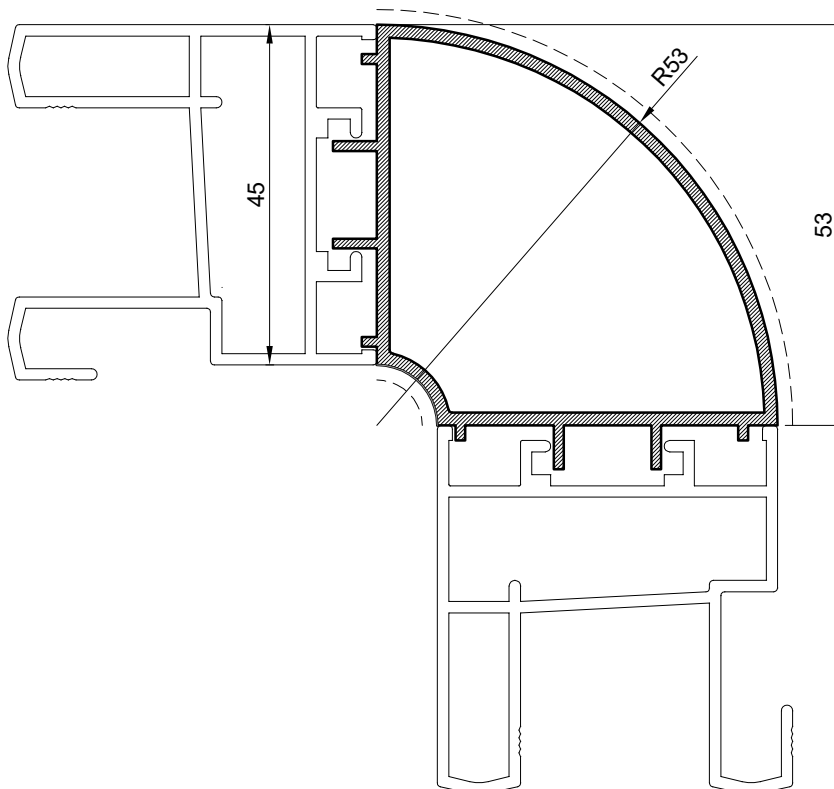
Profil ispunje Fill profile		
Art.Br. Art.Nr.	F-0681	
Težina Weight	kg/m'	0.920
Opseg Perimeter	mm	305
Moment inerције	I _x (cm ⁴)	32.68
	I _y (cm ⁴)	2.44
Moments of inertia	W _x (cm ³)	6.29
	W _y (cm ³)	2.51
L	mm	6500



Profil ispunje Fill profile		
Art.Br. Art.Nr.	F-0187	
Težina Weight	kg/m'	0.397
Opseg Perimeter	mm	111.00
L	mm	6500



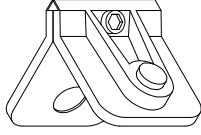
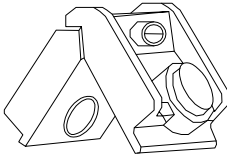
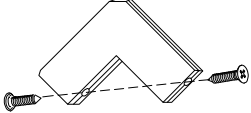
Profil Profile		
Art.Br. Art.Nr.	M45-752	
Težina Weight	kg/m'	0.510
Opseg Perimeter	mm	239
Moment inercije	I _x (cm ⁴)	1.28
	I _y (cm ⁴)	4.96
Moments of inertia	W _x (cm ³)	0.64
	W _y (cm ³)	1.76
L	mm	6500



Profil Profile		
Art.Br. Art.Nr.	M45-754	
Težina Weight	kg/m'	0.932
Opseg Perimeter	mm	248
Moment inercije	I _x (cm ⁴)	12.28
	I _y (cm ⁴)	12.28
Moments of inertia	W _x (cm ³)	3.94
	W _y (cm ³)	3.94
L	mm	6500

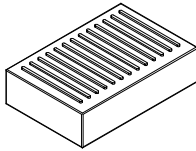
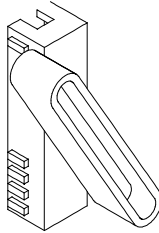
Vezni elementi

Connection elements

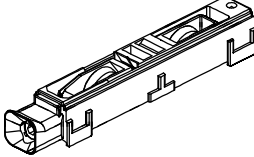
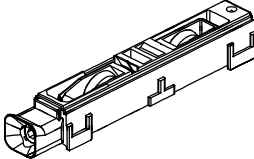
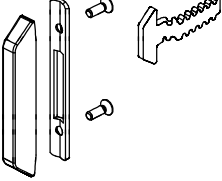
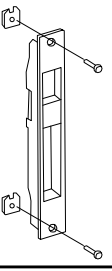
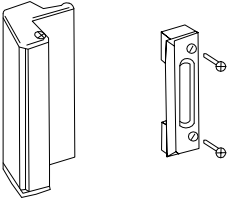
Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
730.013		<ul style="list-style-type: none"> - Kutnik okvira - Stara oznaka 0432 - Frame corner bracket - Former code 0432 		
730.014		<ul style="list-style-type: none"> - Kutnik krila - Stara oznaka 0404 - Sash corner bracket - Former code 0404 		
140.005		<ul style="list-style-type: none"> - Kutnik komarice - Corner bracket for mosquito net 	PVC	

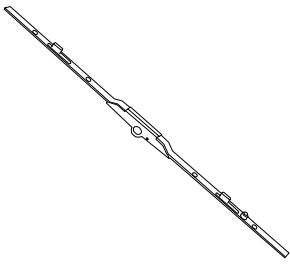
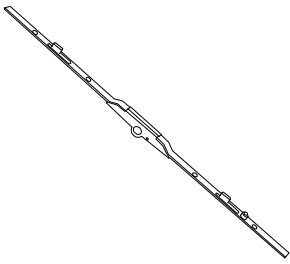
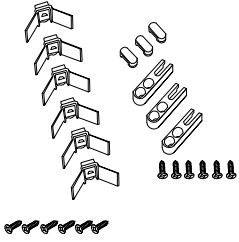
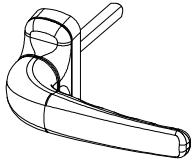
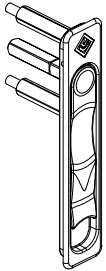
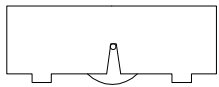
PVC elementi
PVC elements

Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
375.069		<ul style="list-style-type: none"> -Odstojnik i osigurač od vađenja krila (Harmo) -Stara oznaka: 5606006 -Spacer and protector from sash extraction (Harmo) -Former code: 5606006 	PVC	
370.008		<ul style="list-style-type: none"> - Umetak-mask za profil H-633 - Stara oznaka 560GI03 - Insert-mask for profile H-633 - Former code: 560GI03 	PVC	
373.003		<ul style="list-style-type: none"> - Maska za drenažni otvor - Stara oznaka 2328 - Mask for drainage hole - Former code: 2328 	PVC	
373.065		<ul style="list-style-type: none"> - Umetak za profil H-636 - Stara znaka: 370.010 i 560GI04 - Insert for profile H-636 - Former code: 370.010 and 560GI04 	PVC	
370.000		<ul style="list-style-type: none"> - Podmetači za staklo (3 mm) 	PVC	
370.001		<ul style="list-style-type: none"> - Podmetači za staklo (5 mm) 	PVC	

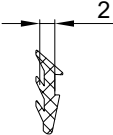
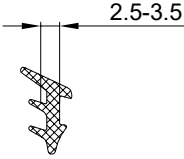
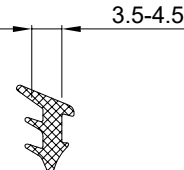
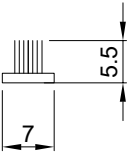
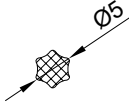
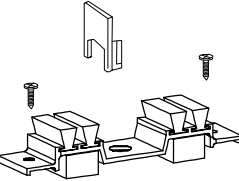
Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
370.002		- Podmetači za staklo (7 mm)	PVC	
373.005		-Umetak za fiksnu grijlu -umeće se u profil H-638 -prihvaća profil F-0187 - Stara oznaka: 2101-PR -Fixed shutter insert -insert into profile H-638 -accepts profile F-0187 -Former code:2101-PR	PVC	

Mehanizmi Mechanisms

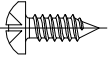
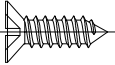
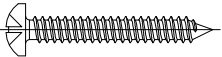
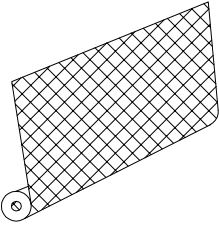
Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
140.001		<ul style="list-style-type: none"> - Kotačići-nosivost 100 kg/par - Stara oznaka 0595 RC - Bogies - capacity 100 kg/pair - Former code 0595 RC 	-	
143.008		<ul style="list-style-type: none"> - Kotačići - nosivost 110 kg/par - Stara oznaka GS 3120 - Bogies - capacity 110 kg/pair - Former code GS 3120 	-	
140.003		<ul style="list-style-type: none"> - Bravica-jezičak sa prihvatnikom - Stara oznaka 0995 RC - Lock - tongue with acceptor (panel) - Stara oznaka 0995 RC 	-	
		<ul style="list-style-type: none"> - Bravica - pogonski dio - Lock - driving part 	-	
105.001		<ul style="list-style-type: none"> - Rukohvat za pogon krila - Stara oznaka 3172 - Handle for sash driving - Former code 3172 	-	

Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
130.003		<ul style="list-style-type: none"> - Ključanje u dvije točke - Stara oznaka A6392 ključanje FAST LOCK L=1000 mm - Locking in three points - Former code A6392 locking FAST LOCK L=1000 mm 		
130.006		<ul style="list-style-type: none"> - Ključanje u tri točke - Stara oznaka A6394 ključanje FAST LOCK L=1800 mm - Locking in three points - Former code A6394 locking FAST LOCK L=1800 mm 		
130.007		<ul style="list-style-type: none"> - Ključanje u više točaka - Stara oznaka A6392.A2 - KIT FAST LOCK - klizno Harmo - Locking in more points - Former code A6392.A2 - KIT FAST LOCK - sliding Harmo 		
107.001.01 02 03		<ul style="list-style-type: none"> - Ručka COMFORT crna bijela siva -Stara oznaka art.6394 (Master) - Handle COMFORT black white gray -Former code art.6394 (Master) 		
107.004.01 02 03		<ul style="list-style-type: none"> - Pogonska ručica crna bijela siva - Stara oznaka art.6397 (Master) - Driving handle black white gray - Former code art.6397 (Master) 		
140.006		<ul style="list-style-type: none"> - Kotačići komarice - Mosquito net rollers 		

Brtila Gaskets

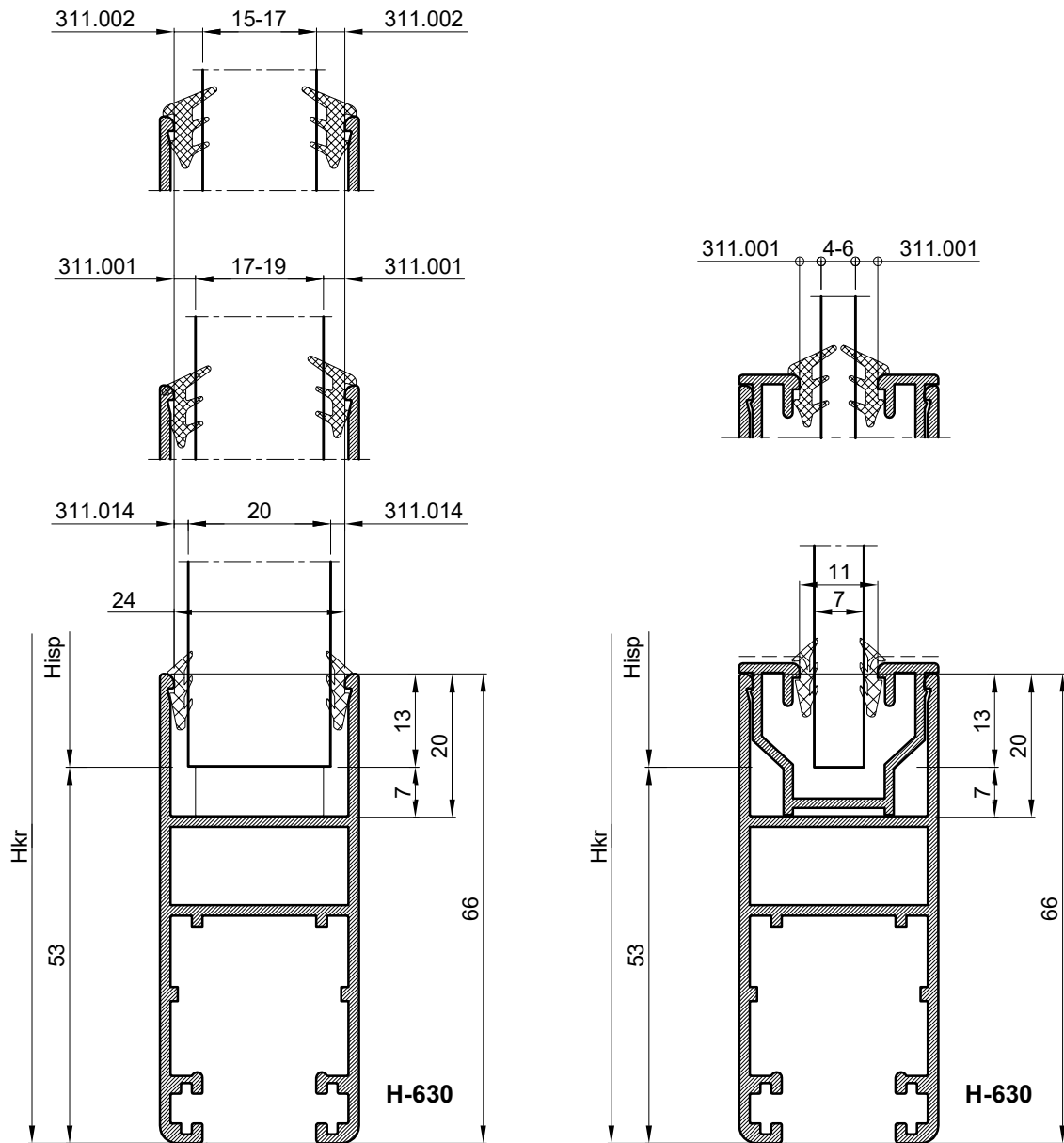
Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
311.014		<ul style="list-style-type: none"> -Brtva prema staklu /unutarnja/ -Stare oznake UP-2 -Gasket to the glass /interior/ -Former code UP-2 		
311.001		<ul style="list-style-type: none"> - Brtva prema staklu /unutarnja/ - Stara oznaka (921) - Gasket to the glass /interior/ - Former code (921) 	EPDM	
311.002		<ul style="list-style-type: none"> -Brtva prema staklu /unutarnja/ -Stara oznaka (918) -Gasket to the glass /interior/ -Former code (918) 	EPDM	
347.004		<ul style="list-style-type: none"> - Četkasta brtva 7x5.5 - Stara oznaka PB*HFC - Brush gasket 7x5.5 - Former code PB*HFC 		
340.048		<ul style="list-style-type: none"> -Brtva - držač mreže komarice -Stara oznaka 00600/55 -Gasket - mosquito net holder -Former code 00600/55 		
340.010		<ul style="list-style-type: none"> - Komplet brtvilo i maska - Stara oznaka 560GI01 - Set sealing and mask - Former code 560GI01 	-	

Dodaci Accessories

Oznaka Code	Izgled-presjek View-cross section	Opis Description	Materijal Material	Napomena Remark
433.002		- 3.5x9.5 DIN 7981	-	
433.116		- 4.2X13DIN 7982	-	
433.032		- 4.2x25 DIN 7981	-	
340.047		Mreža komarice Mosquito net	PVC	
			-	

Prikaz stakljenja Glazing

MJERE ISPUNE I BRTVLJENJE PREMA ISPUNI
FILLING MEASURE AND SEALING TOWARDS FILLING



MJERA ISPUNE PREMA PROFILIMA KRILA

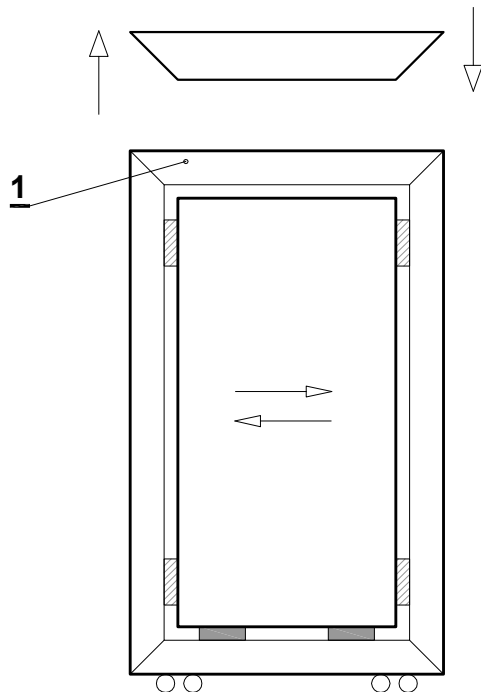
- $H_{isp} = H_{kr} - 106$
- $L_{isp} = L_{kr} - 106$

Za profile krila i prečke: H-630, H-633, H-635

FILLING MEASURE TOWARDS SASH PROFILES

- $H_{fill} = H_{sh} - 106$
- $L_{fill} = L_{sh} - 106$

For sash and mullion profiles: H-630, H-633, H-635



- nosivi podmetač
support packer
- odstojni podmetač
spacing packer

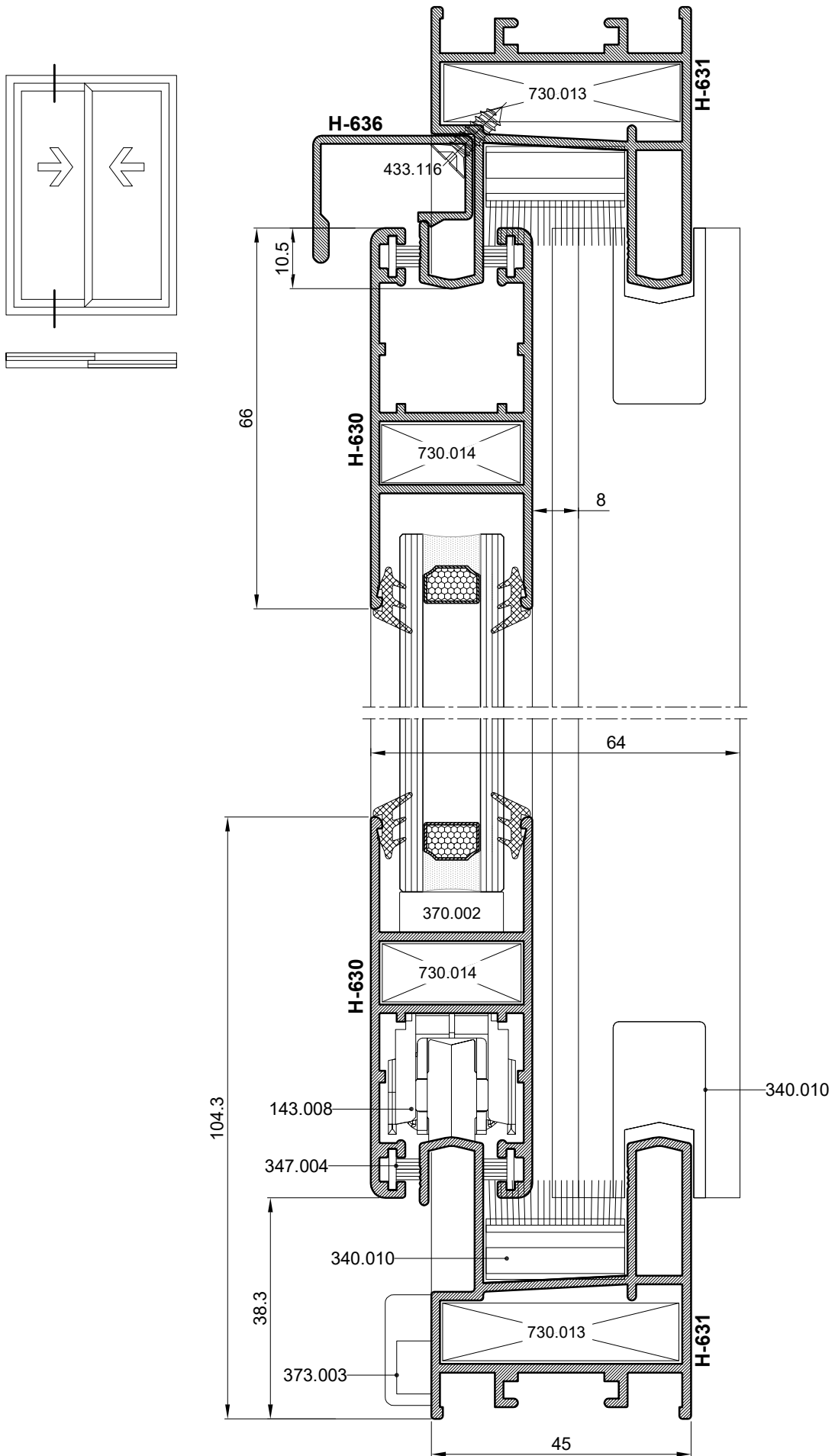
UGRADNJA ISPUNE U KRILO

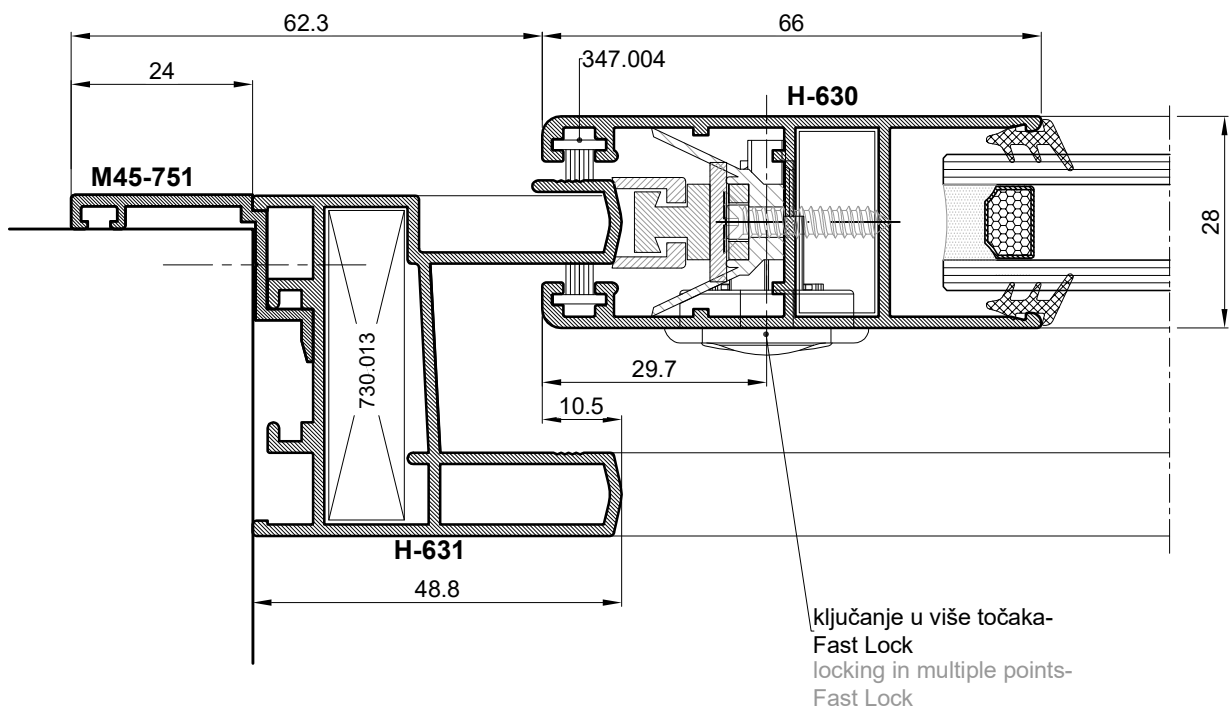
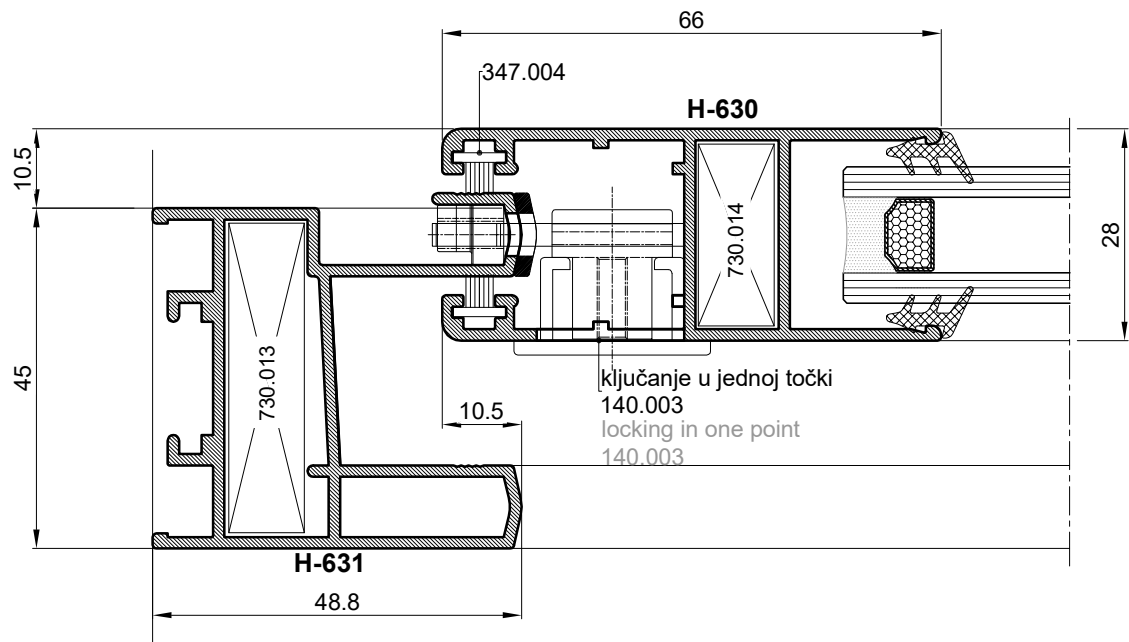
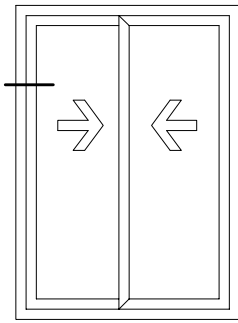
1. gornji vodoravni pojas krila 1 odvojiti od okvira krila
2. umetnuti ispunu u okvir krila s rasporedom podmetača
-prema skici
3. vratiti vodoravni pojas krila 1 u prvobitno stanje
4. zabrtviti prostor između ispune i profila EPDM brtvama

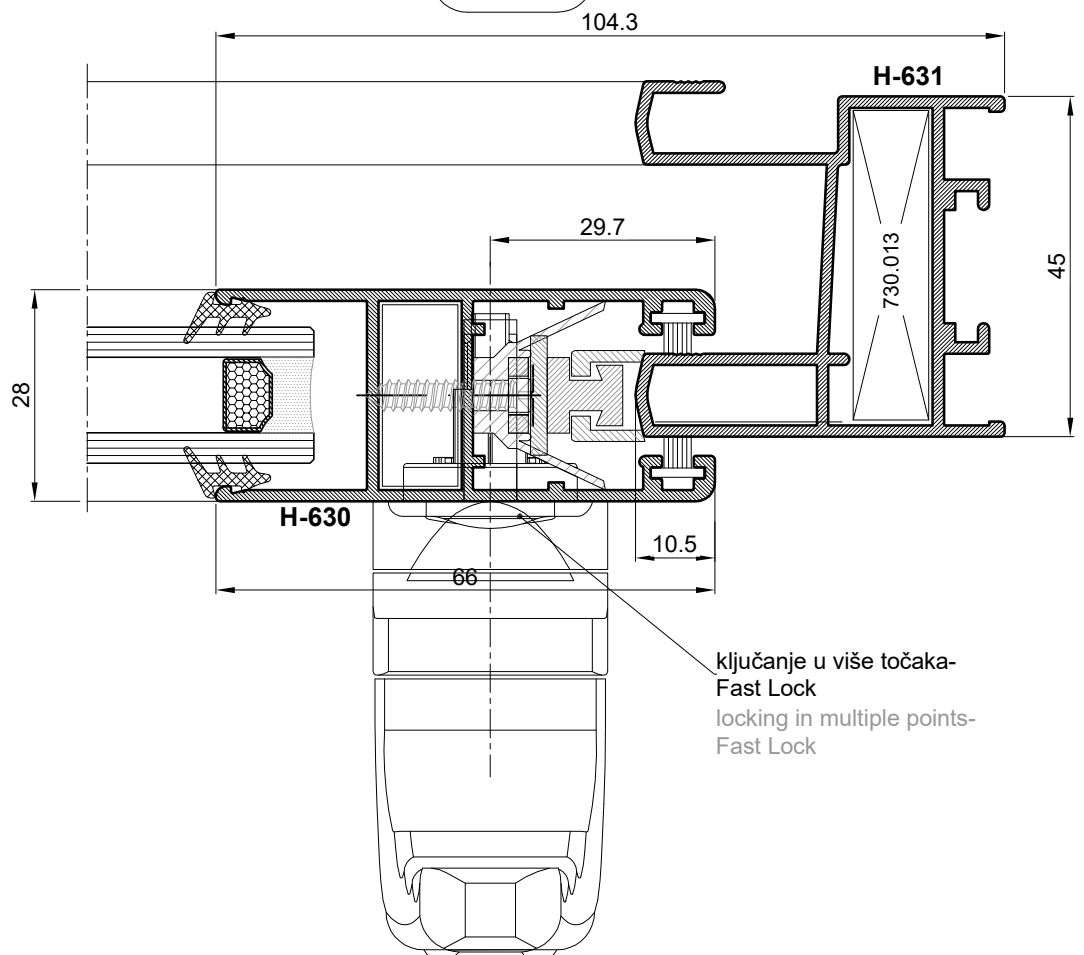
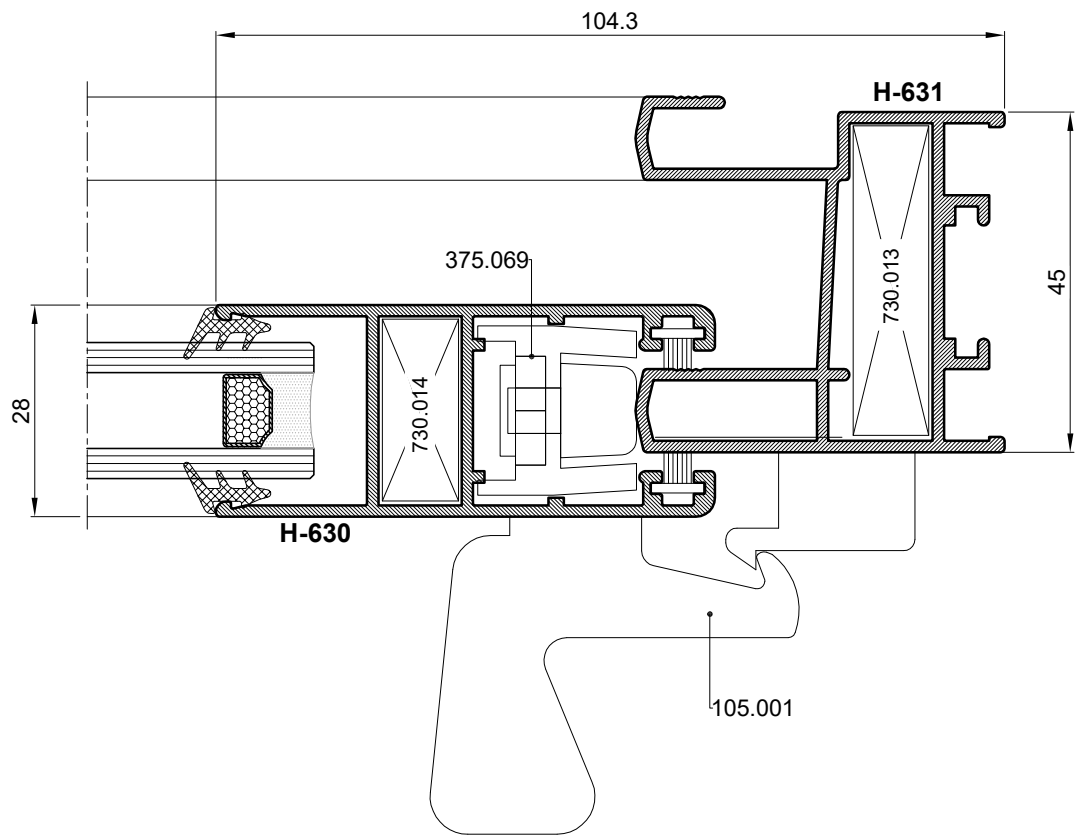
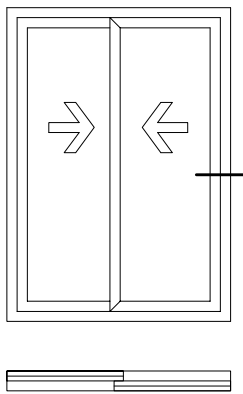
FILLING MONTAGE INTO SASH

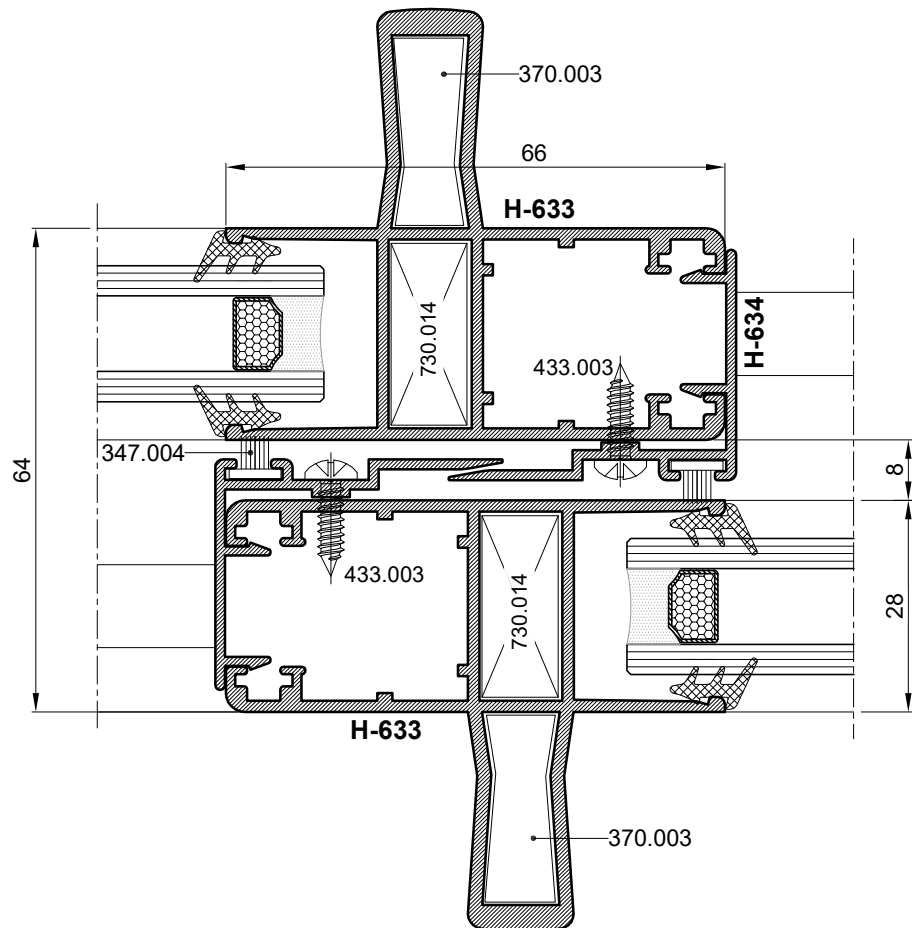
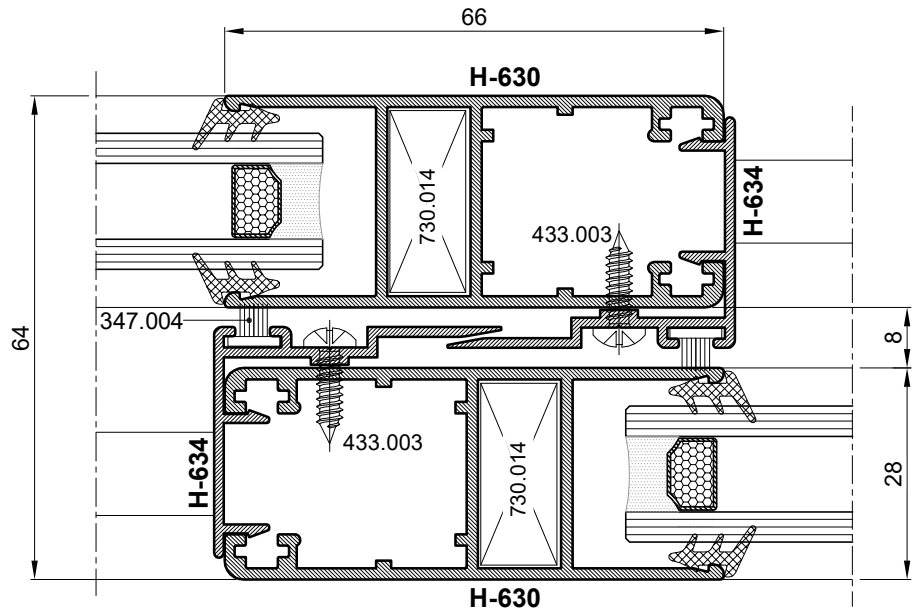
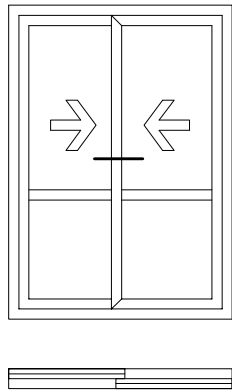
1. Upper sash horizontal field 1 separate from sash frame
2. insert filling into sash frame with packer arrangement
-as shown on drawing
3. return ash horizontal field 1 in originally state
4. seal space between filling and profile with EPDM gaskets

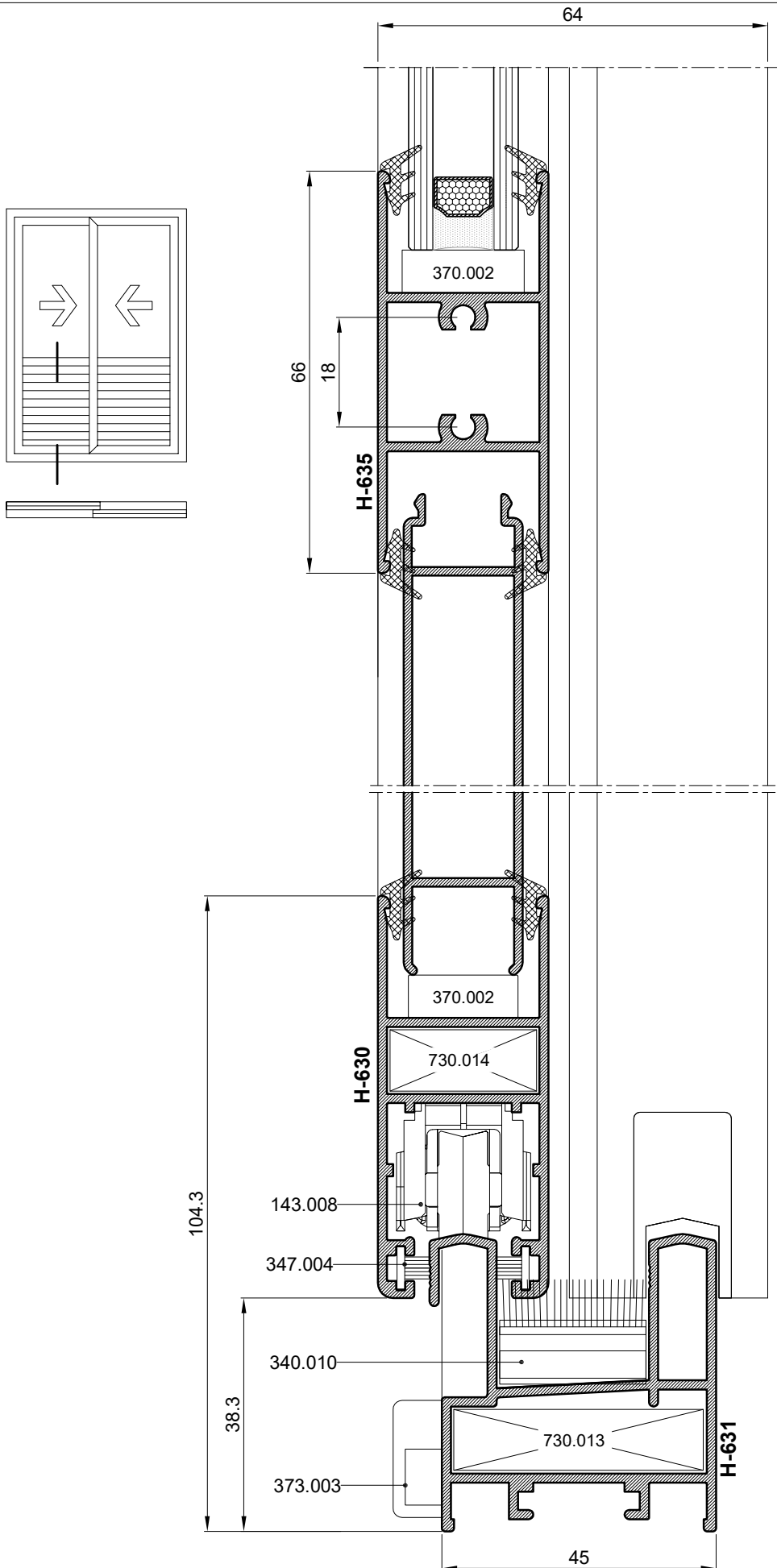
Presjeci Cross sections



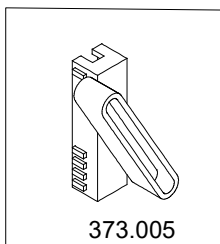
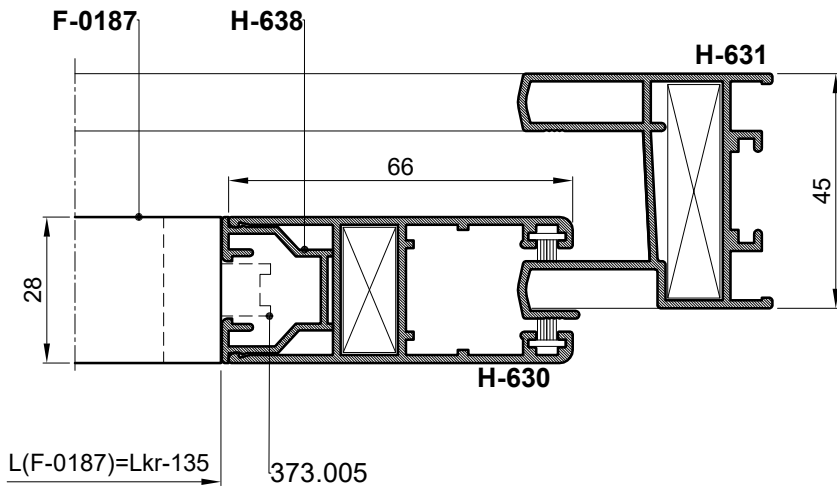
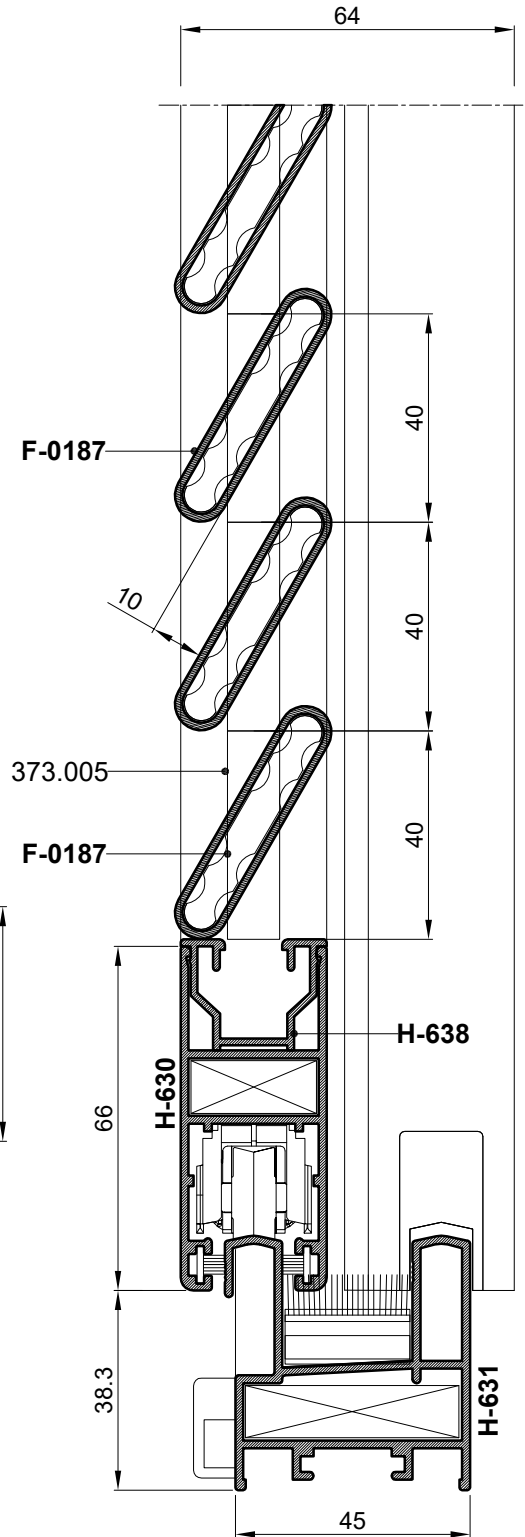
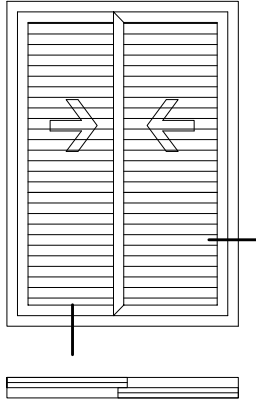


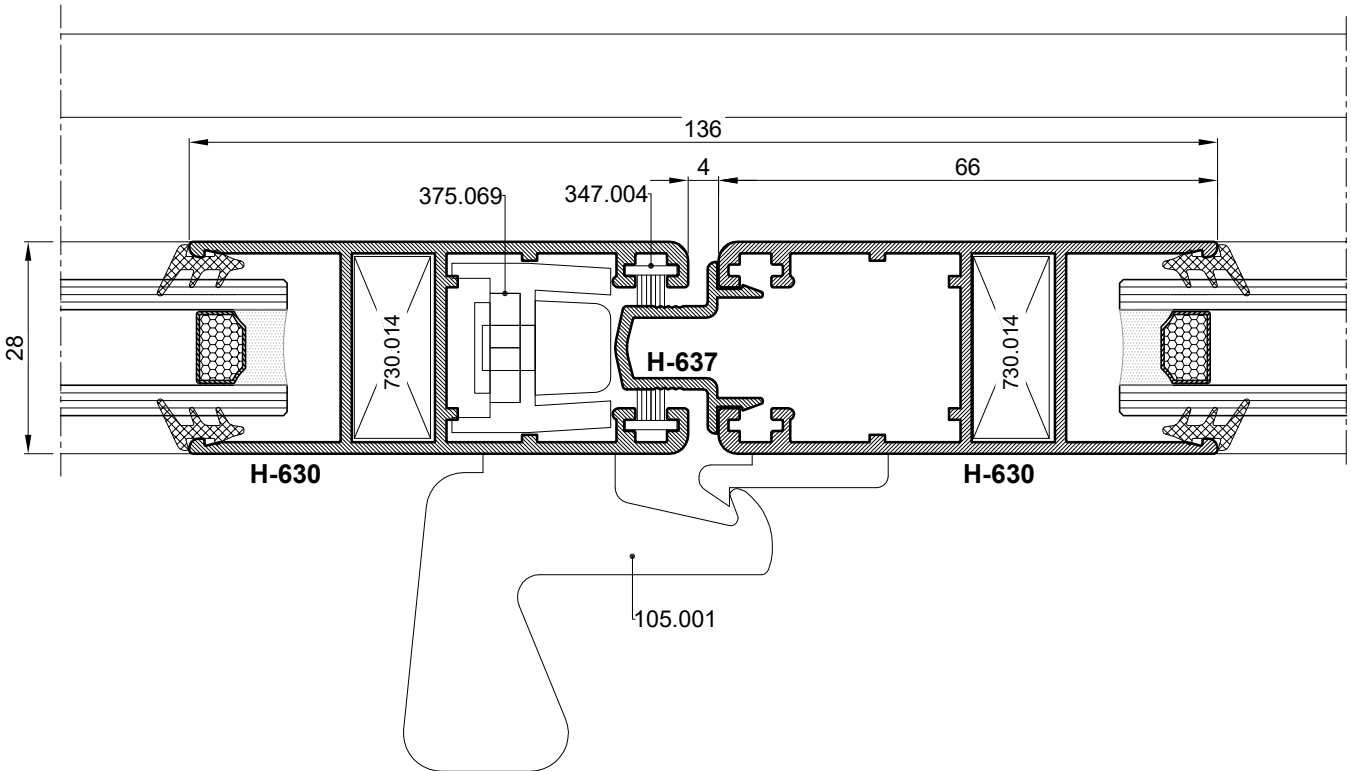
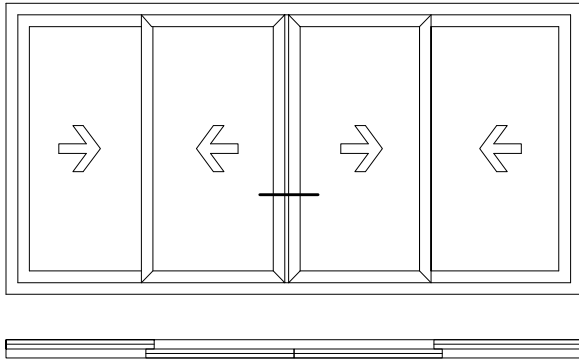


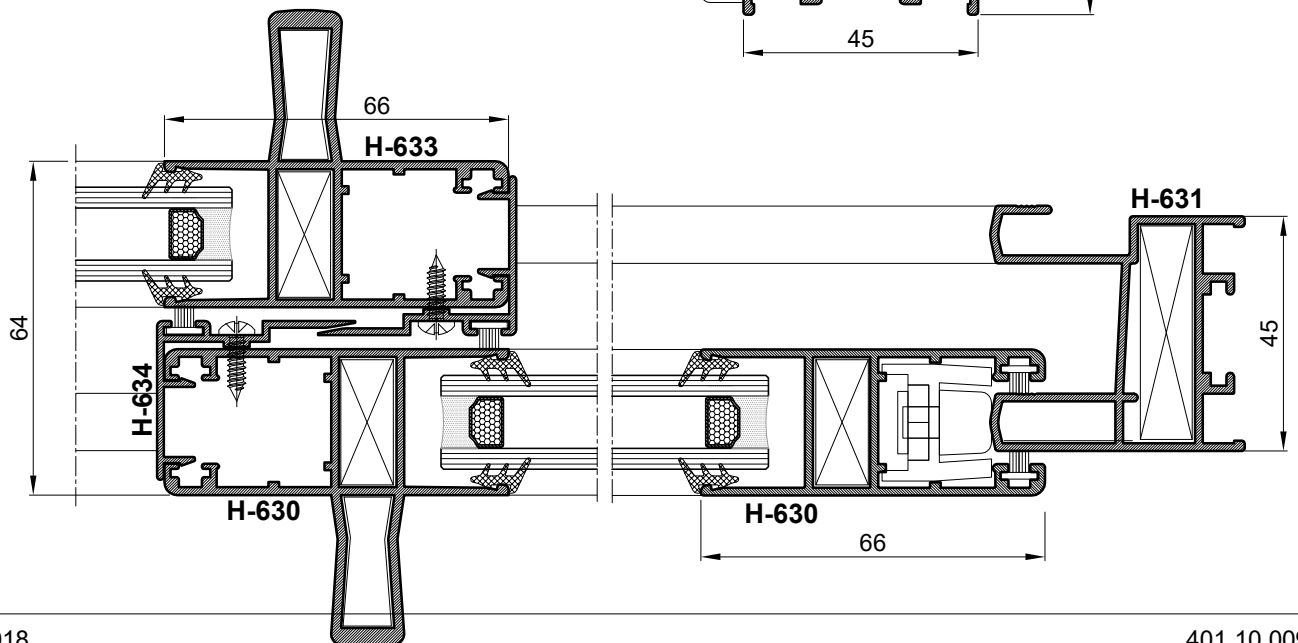
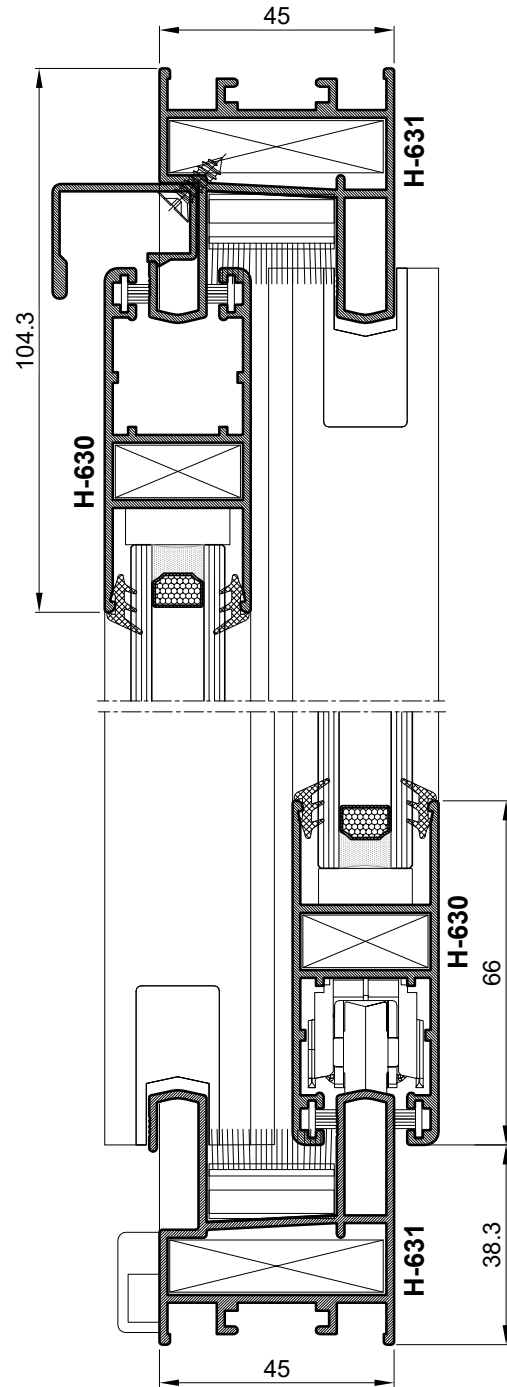
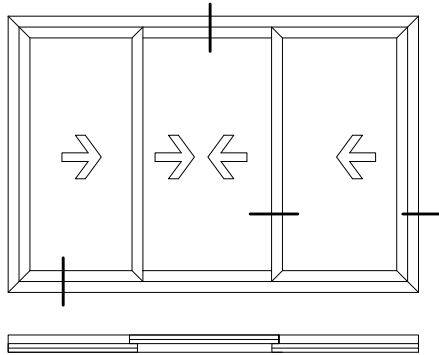




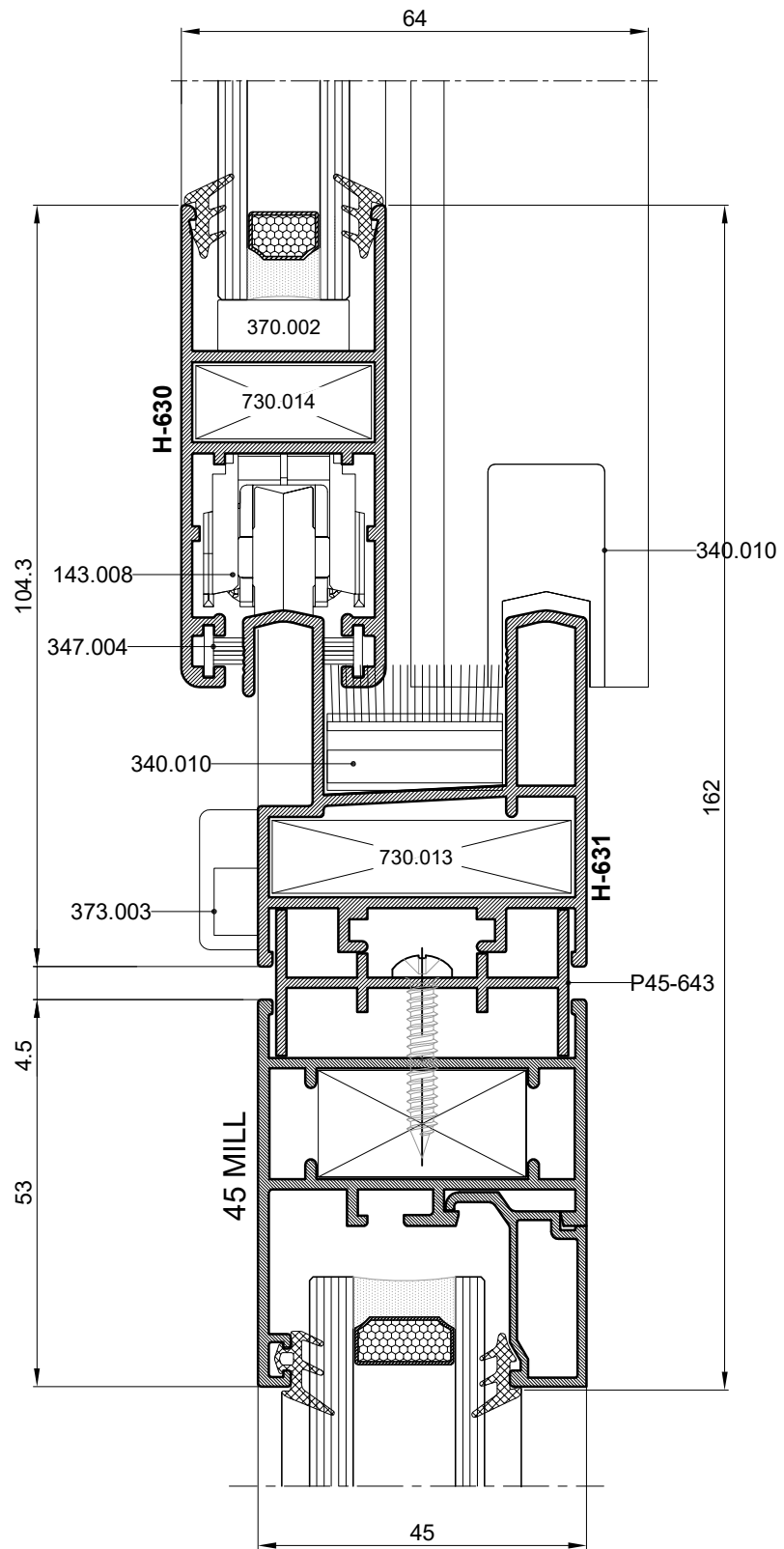
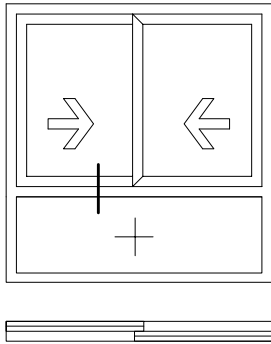
Fiksna ispuna od profila F-0187
Fixed filling from profile F-0187



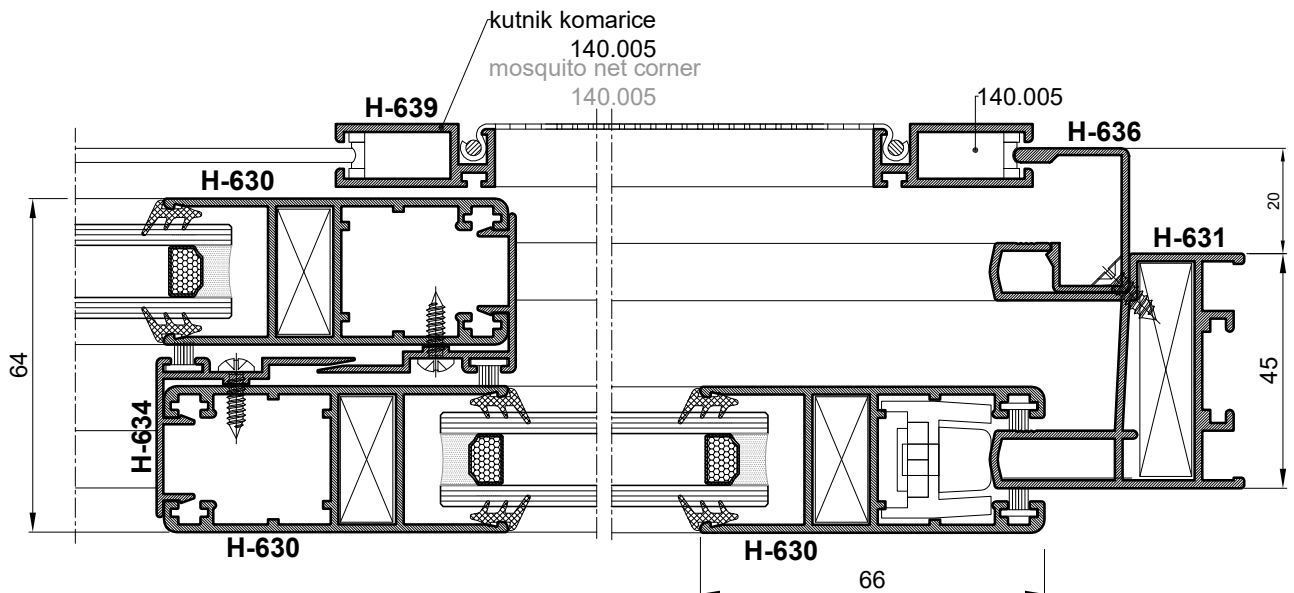
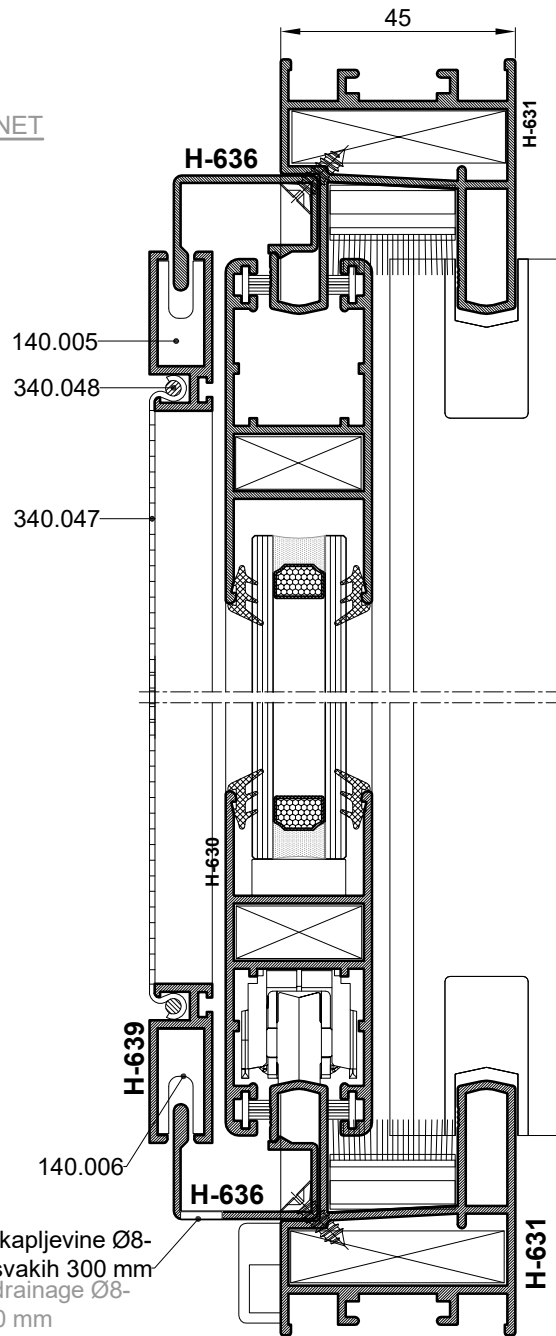
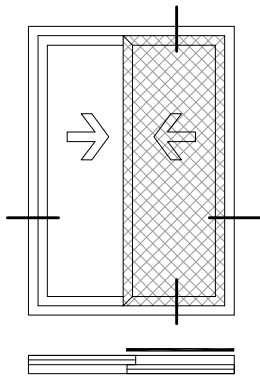


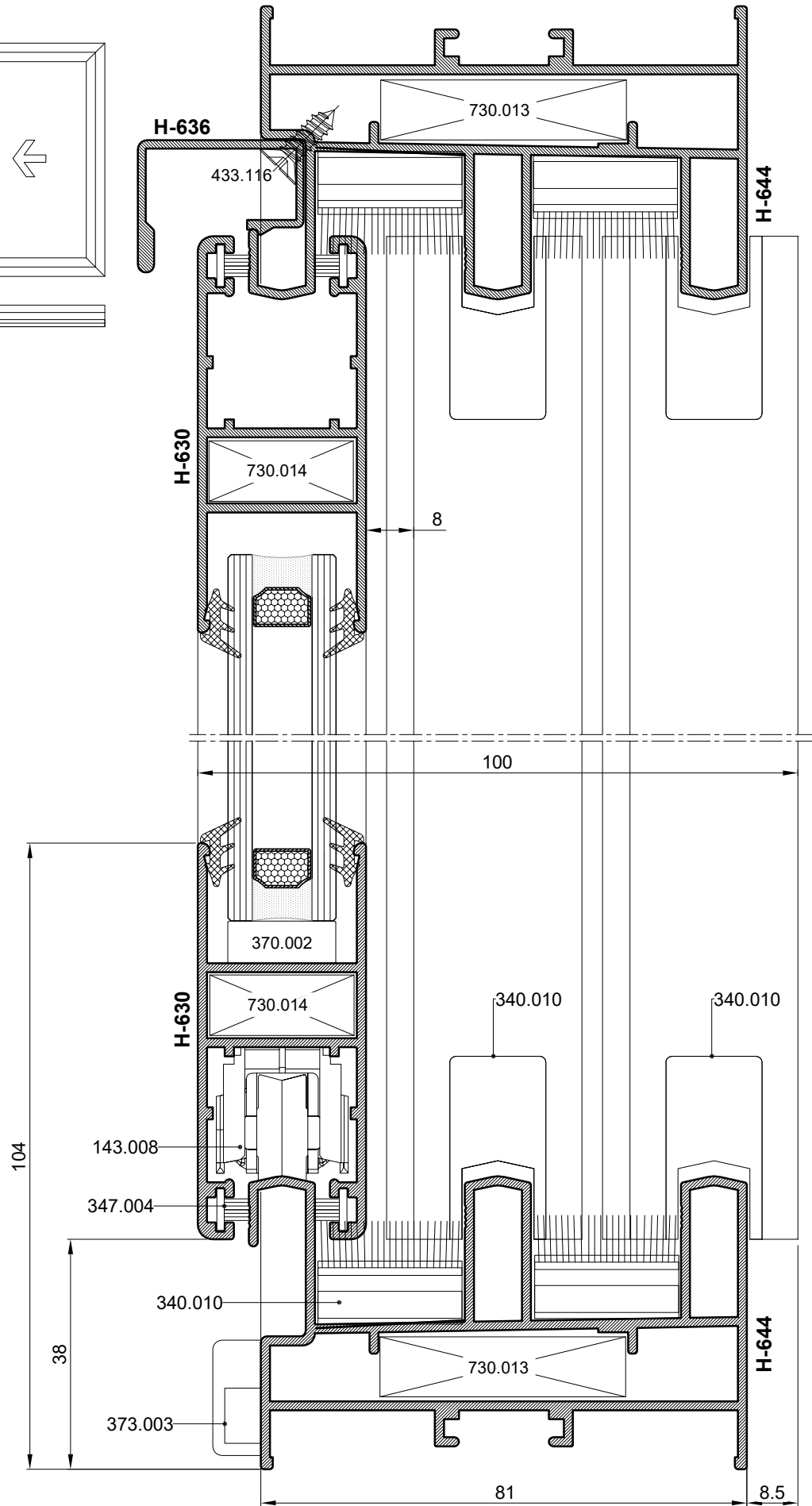
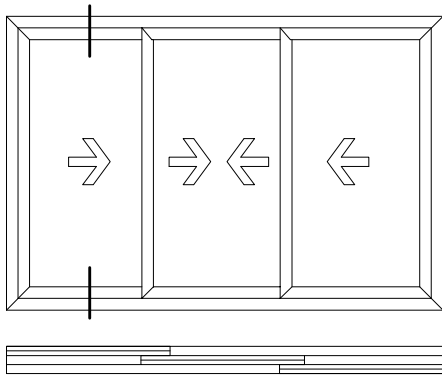


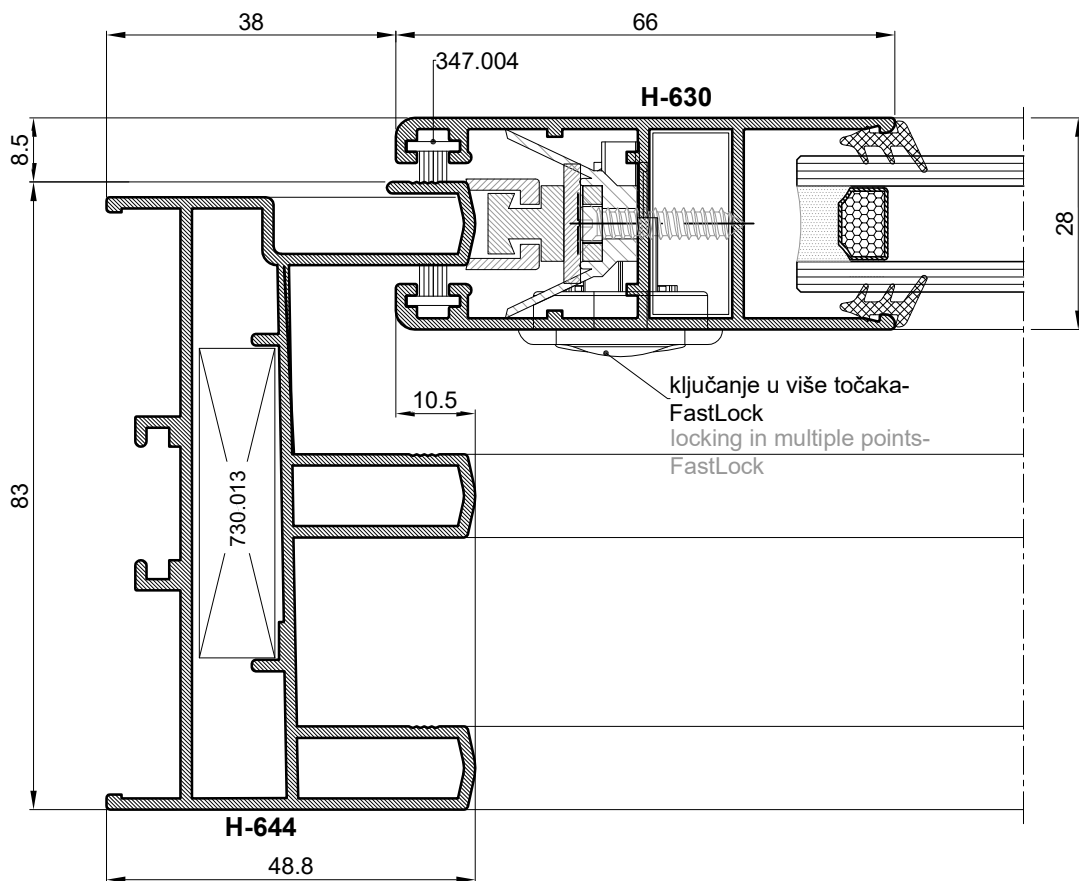
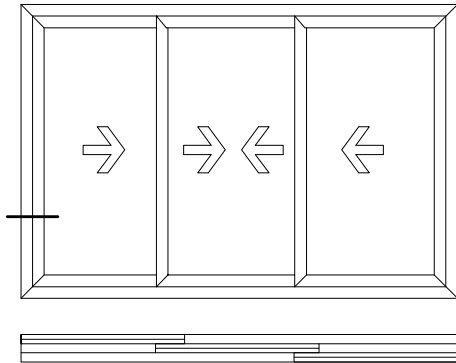
Spoj serije Harmo (dvostazno) sa serijom 45 Mill
Connection of Harmo series (two-rail) with series 45 Mill

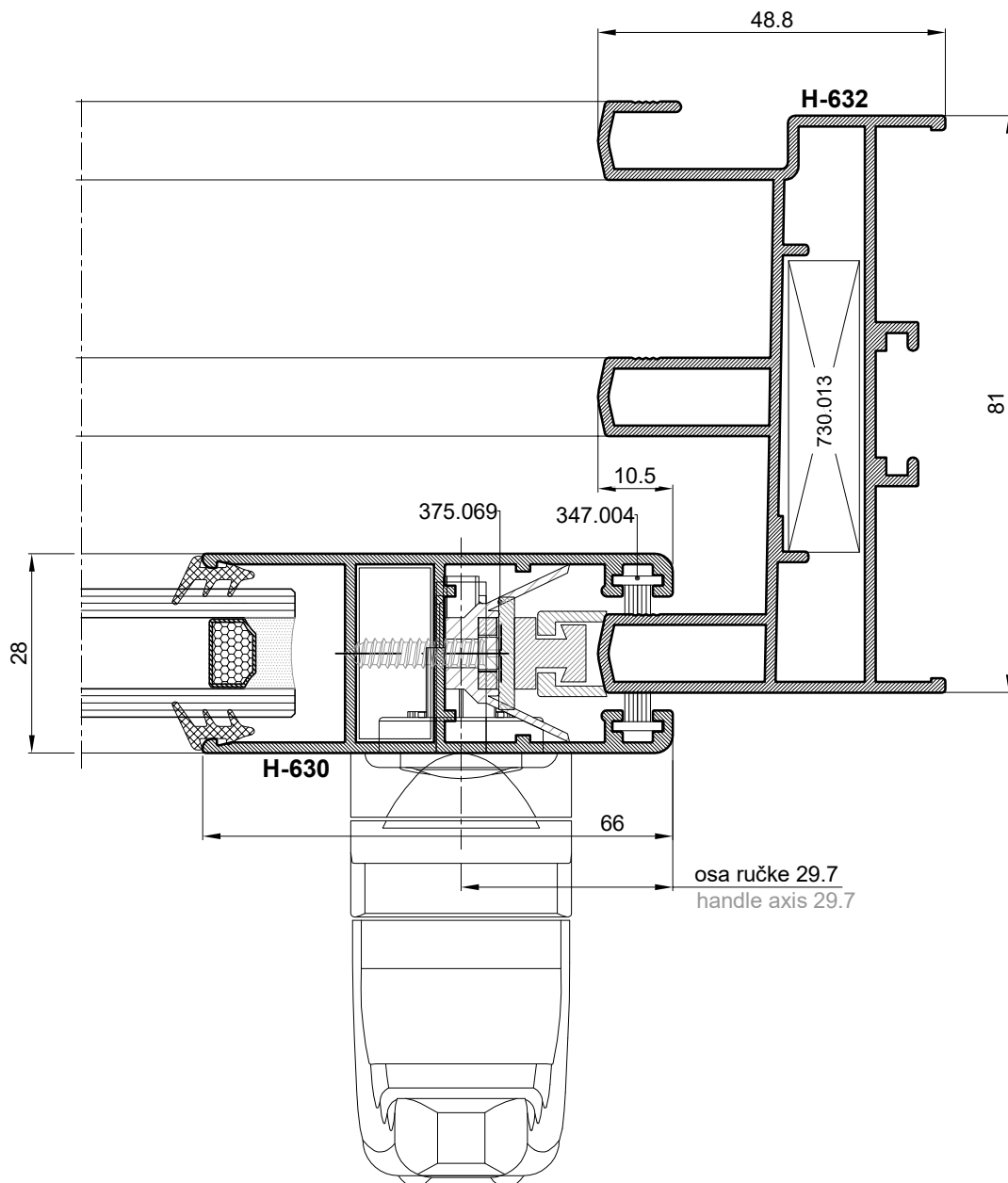
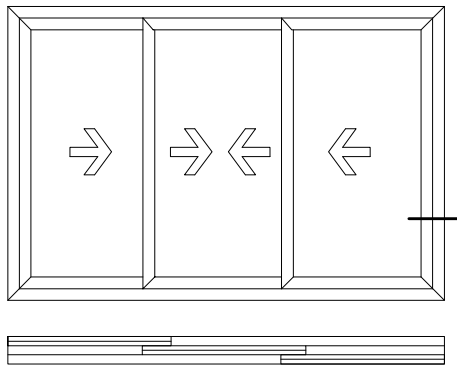


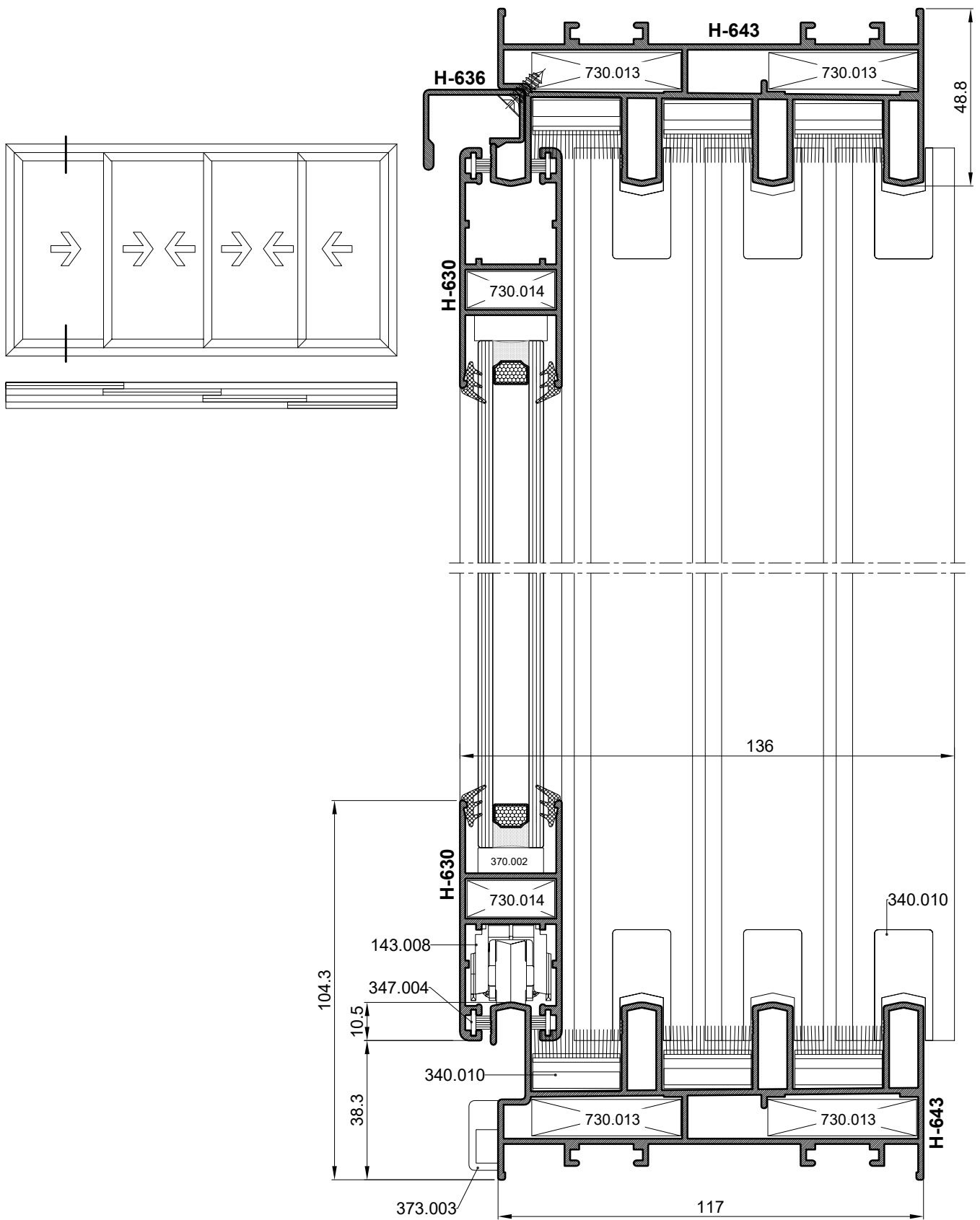
DETALJ S KLIZNOM KOMARICOM DETAIL WITH SLIDING MOSQUITO NET

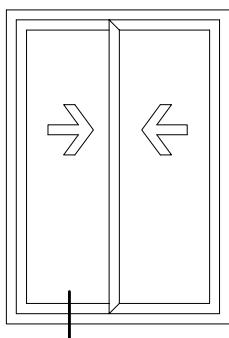




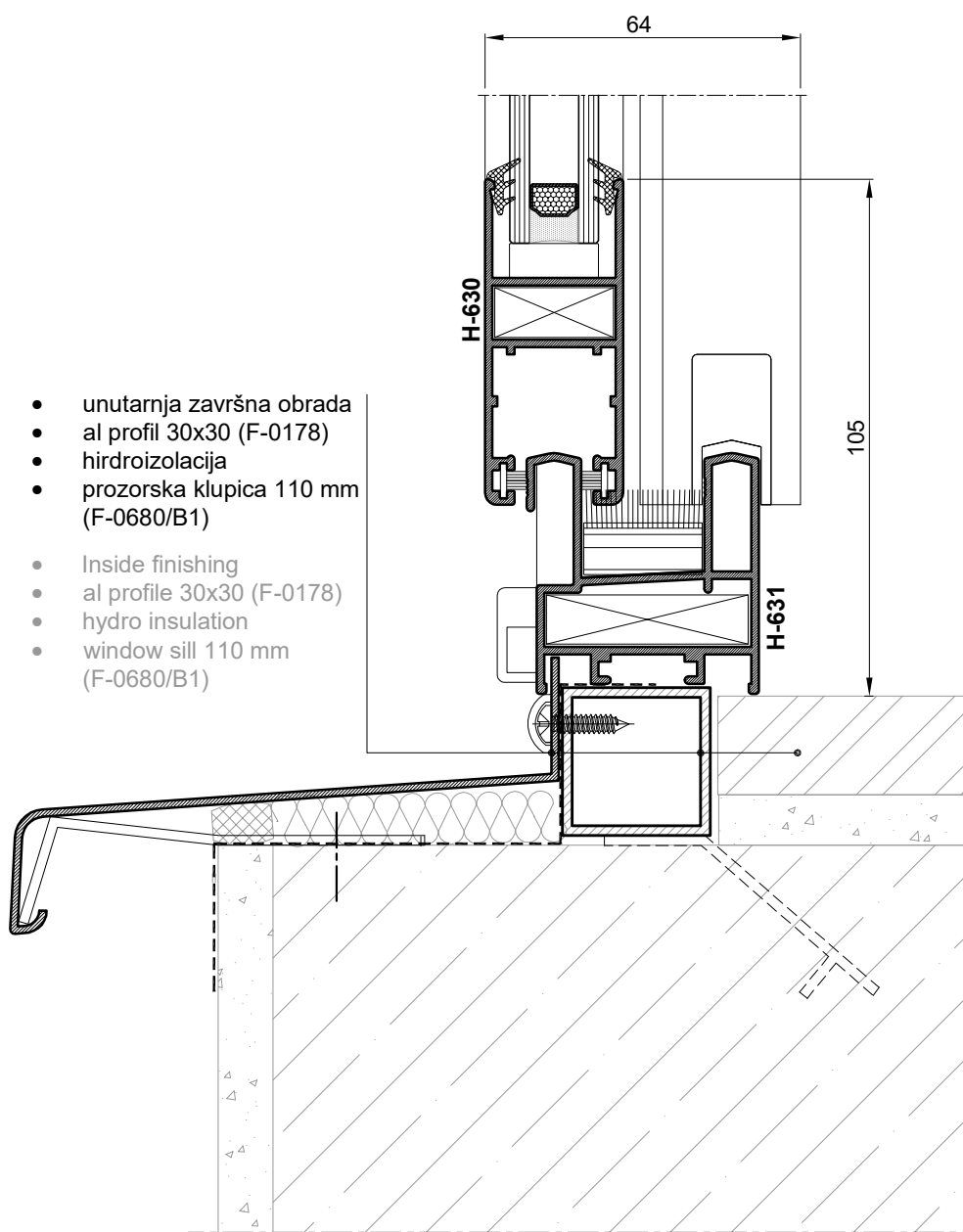






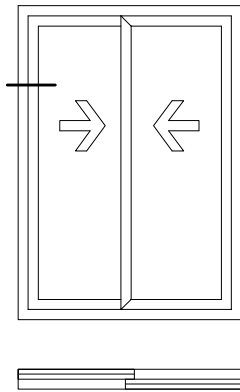


DETALJI UGRADNJE
INSTALLATION DETAIL



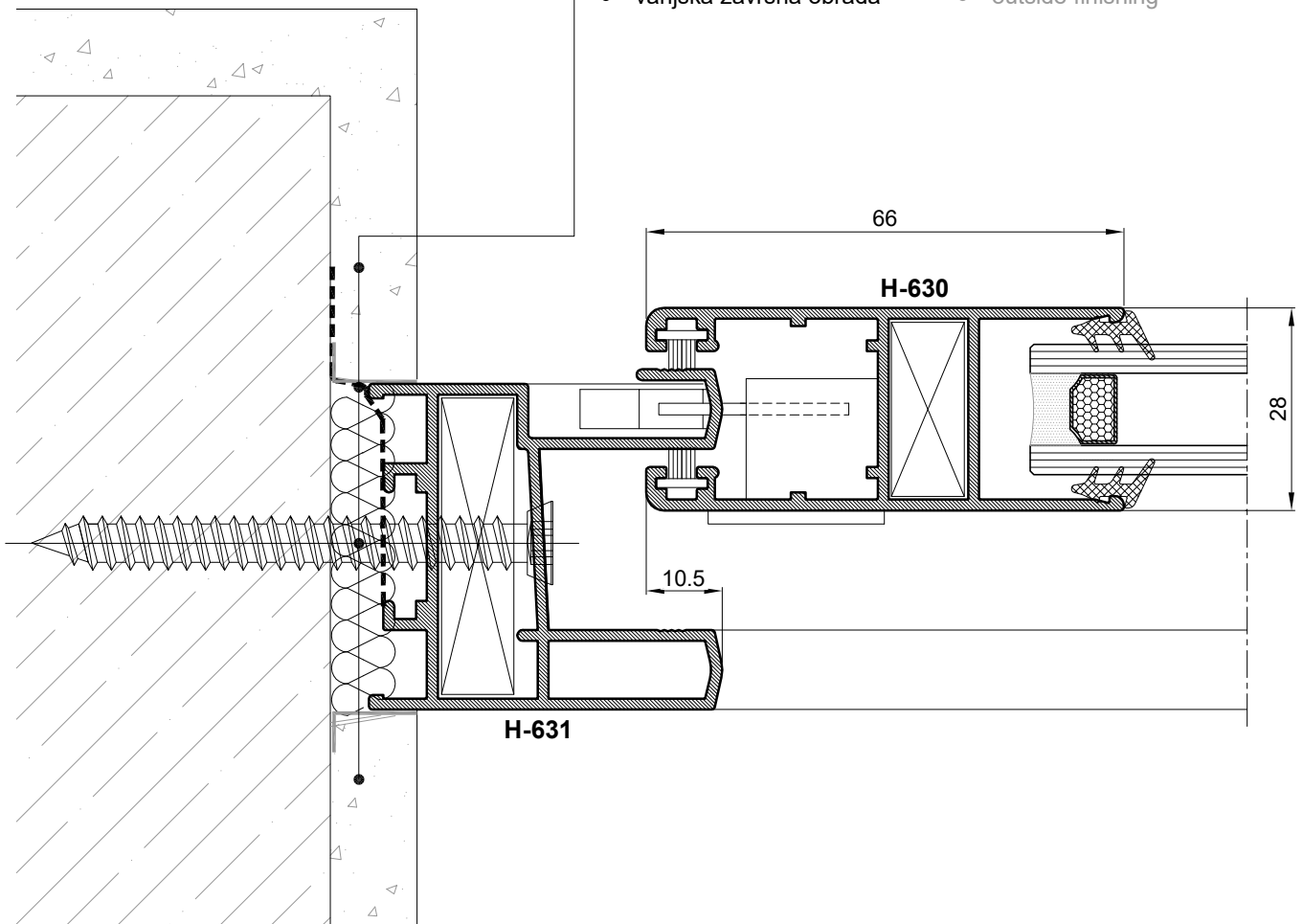
- unutarnja završna obrada
- al profil 30x30 (F-0178)
- hidroizolacija
- prozorska klupica 110 mm (F-0680/B1)

- Inside finishing
- al profile 30x30 (F-0178)
- hydro insulation
- window sill 110 mm (F-0680/B1)



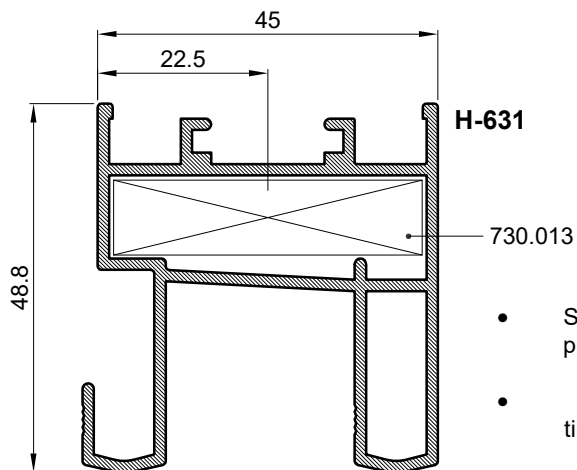
DETALJ SPOJA PREMA ZIDU
DETAIL CONNECTION TOWARDS WALL

- unutarnja završna obrada • inside finishing
- turbovijak za ugradnju 7.5x70 • concrete screw 7.5x70
- hidroizolacija • hydro insulation
- vanjska završna obrada • outside finishing



Obrada i montaža

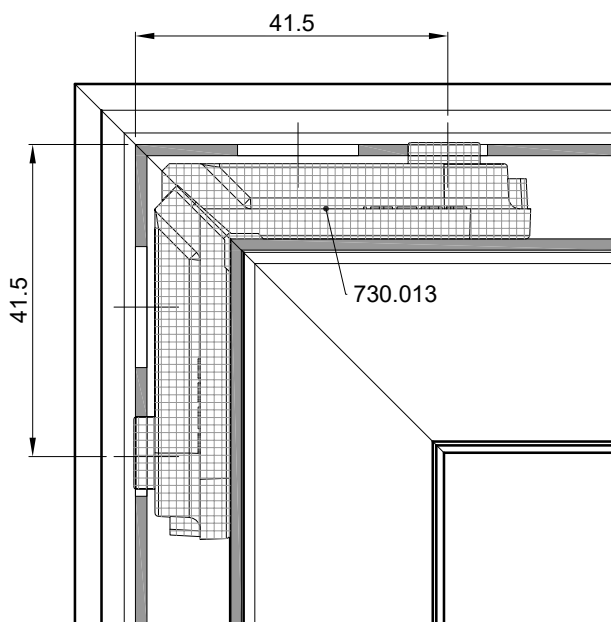
Processing and montage



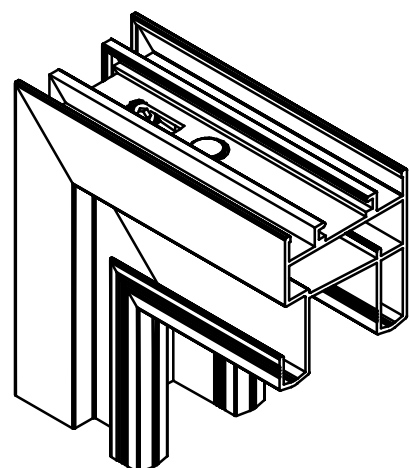
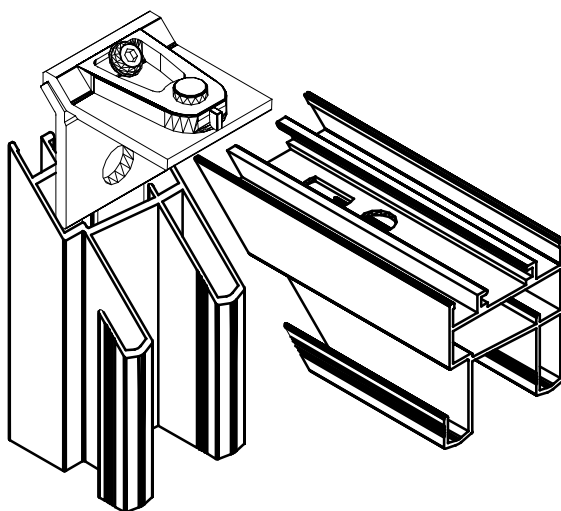
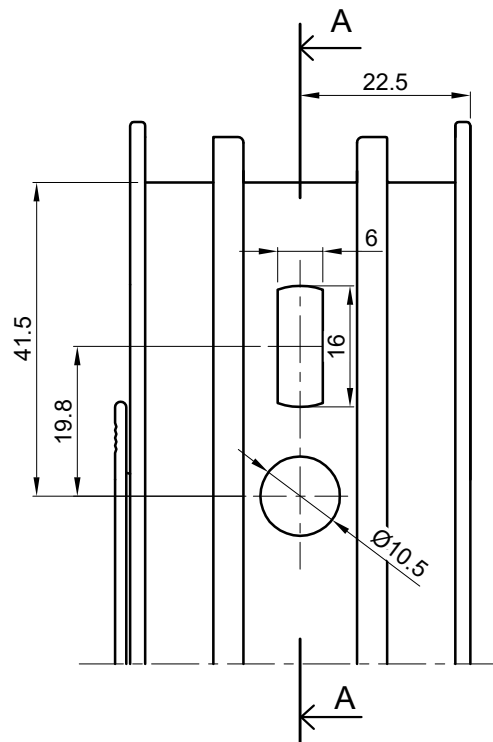
Obrada profila H-631 za kutnik 730.013

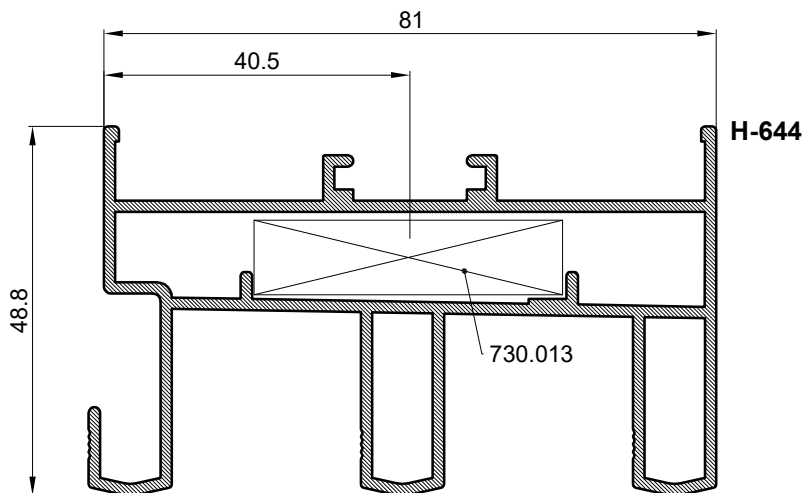
Processing profile H-631 for corner bracket 730.013

- Spajanje kutnikom 730.013 s predobradom štancanja
- Obrada na pneumatskoj štanci tipa Feal br.2-art.210.003
- Connection with corner bracket 730.013 with punching preprocessing
- Processing on pneumatic punching machine type Feal br.2-art.210.003



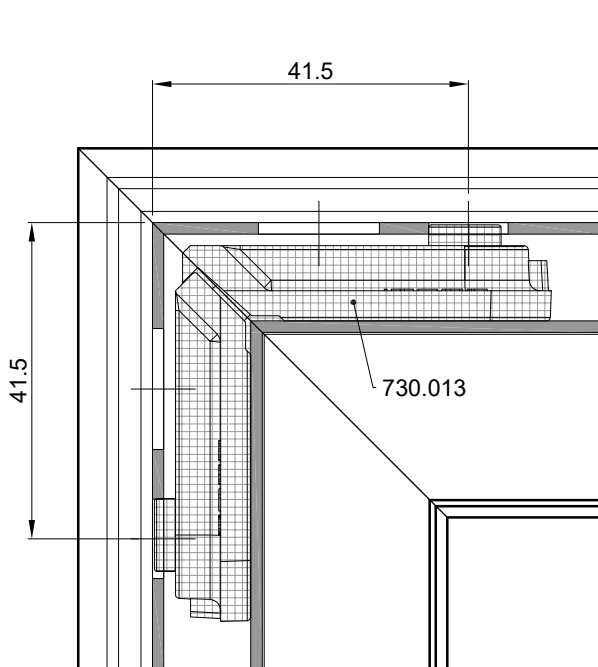
PRESJEK A-A
CROSS SECTION A-A



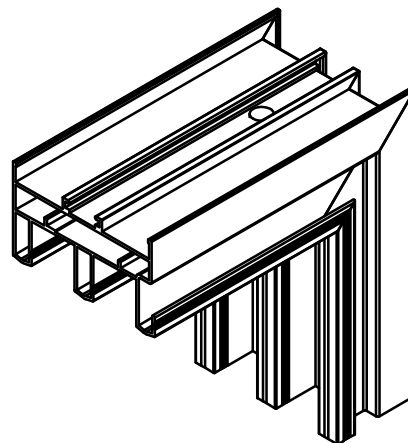
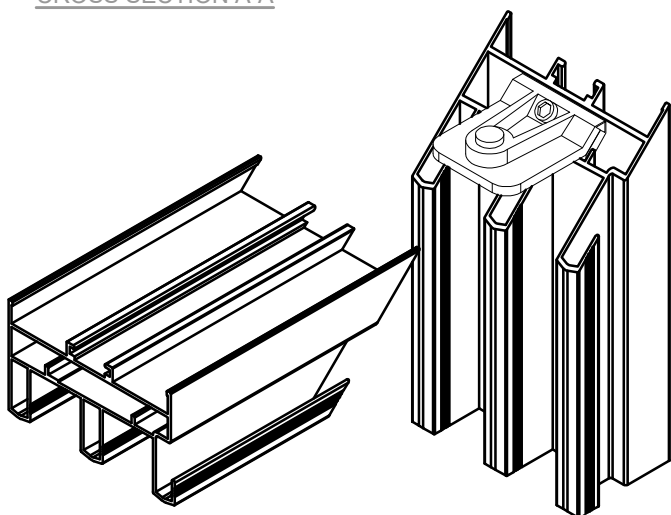
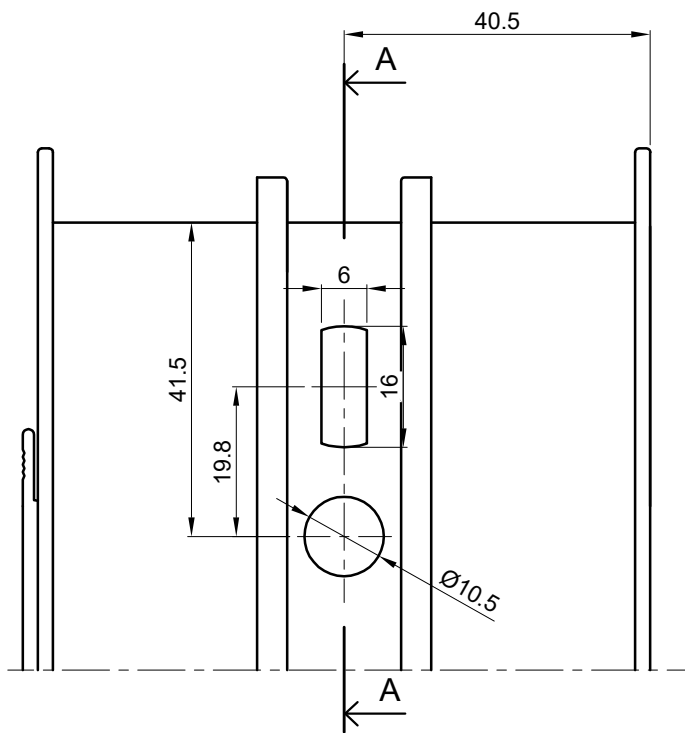


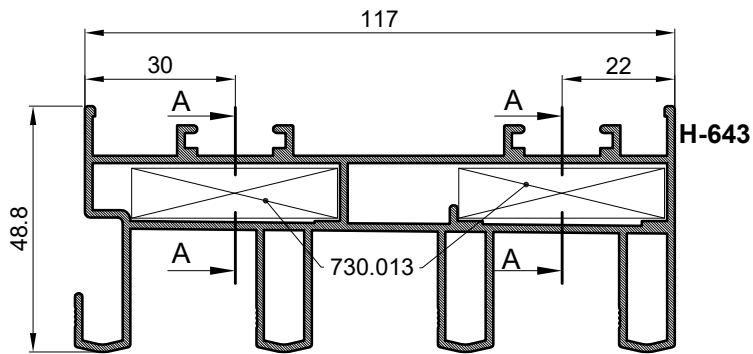
- Obrada profila H-644 za kutnik 730.013
- Processing profile H-644 for corner bracket 730.013

- Spajanje kutnikom 730.013 s predobradom štancanja
- Obrada na pneumatskoj štanci tipa Feal br.2-art.210.003
- Connection with corner bracket 730.013 with punching preprocessing
- Processing on pneumatic punching machine type Feal br.2-art.210.003



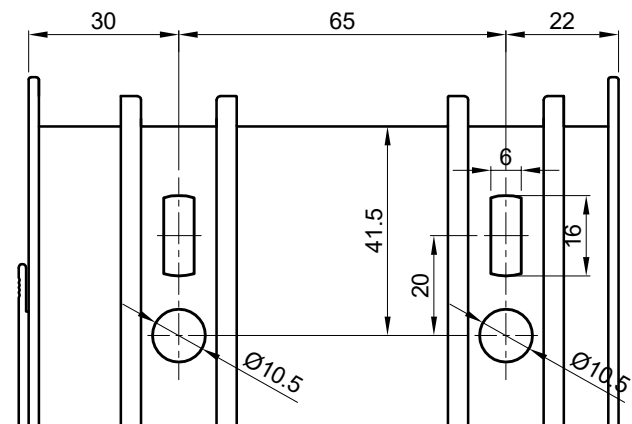
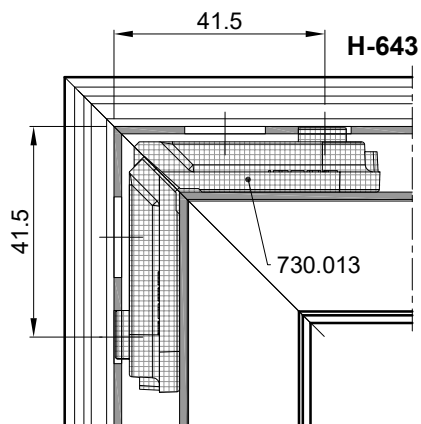
PRESJEK A-A
CROSS SECTION A-A



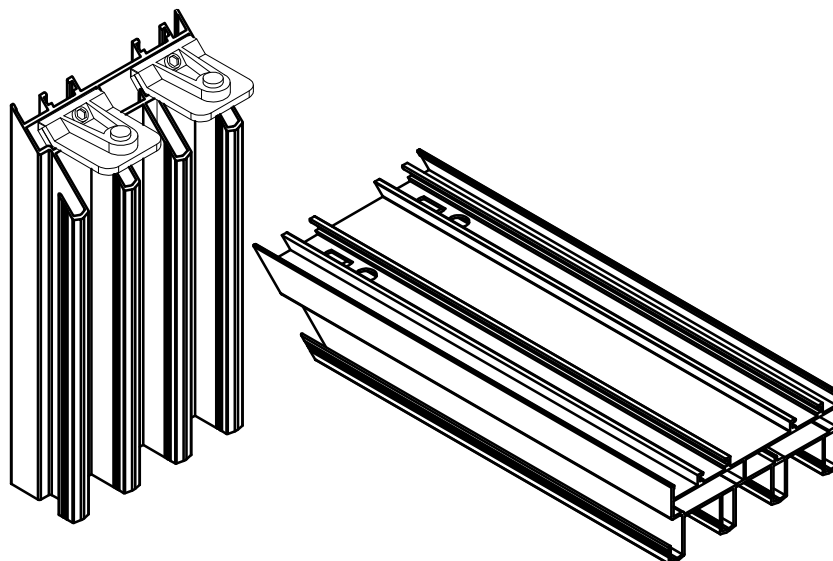


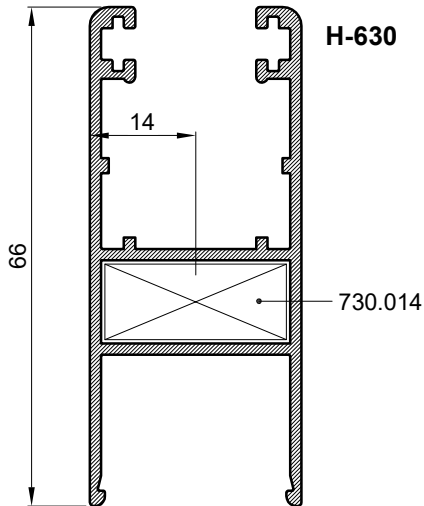
- Obrada profila H-643 za kutnik 730.013
- Processing profile H-643 for corner bracket 730.013

- Spajanje kutnikom 730.013 s preobradom štancanja
- Obrada na pneumatskoj štanci tipa Feal br.2-art.210.003
- Connection with corner bracket 730.013 with punching
- Processing on pneumatic punching machine type Feal br.2-art.210.003



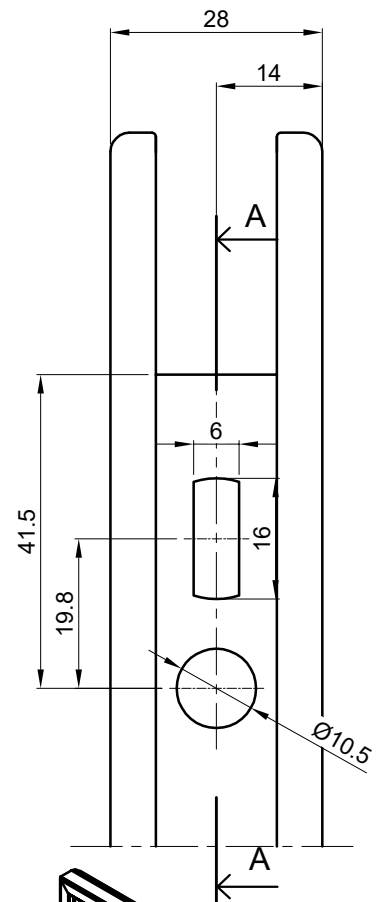
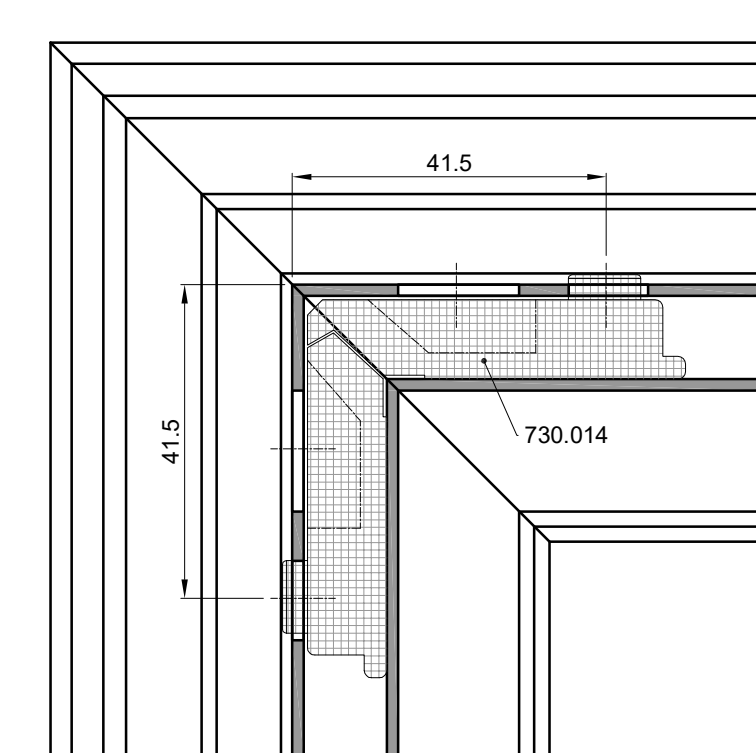
PRESJEK A-A
CROSS SECTION A-A



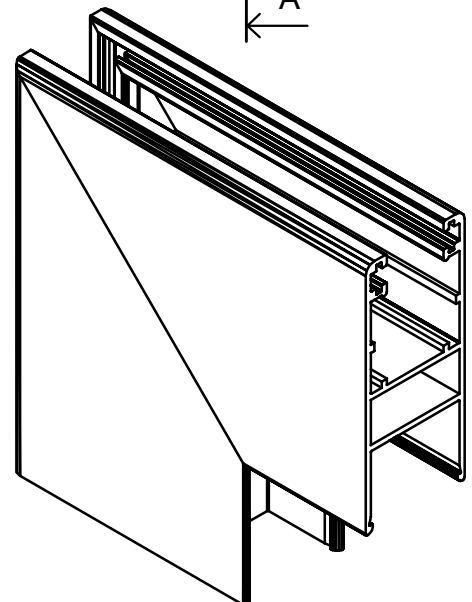
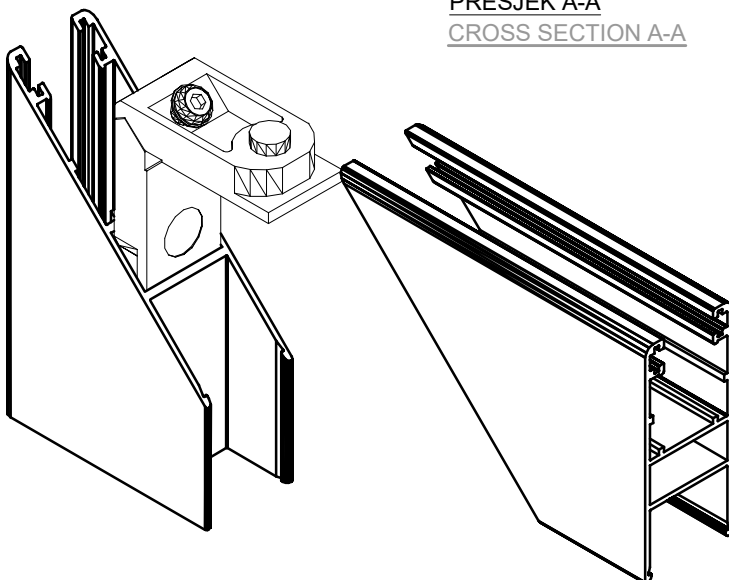


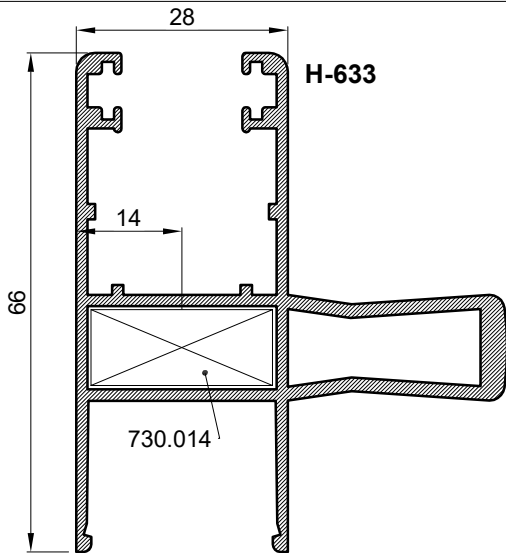
-Obrada profila H-630 za kutnik 730.014
-Processing profile H-630 for corner bracket 730.014

- Obrada na pneumatskoj štanci tipa Feal br.2-art.210.003
- Processing on pneumatic punching machine type Feal br.2-art.210.003



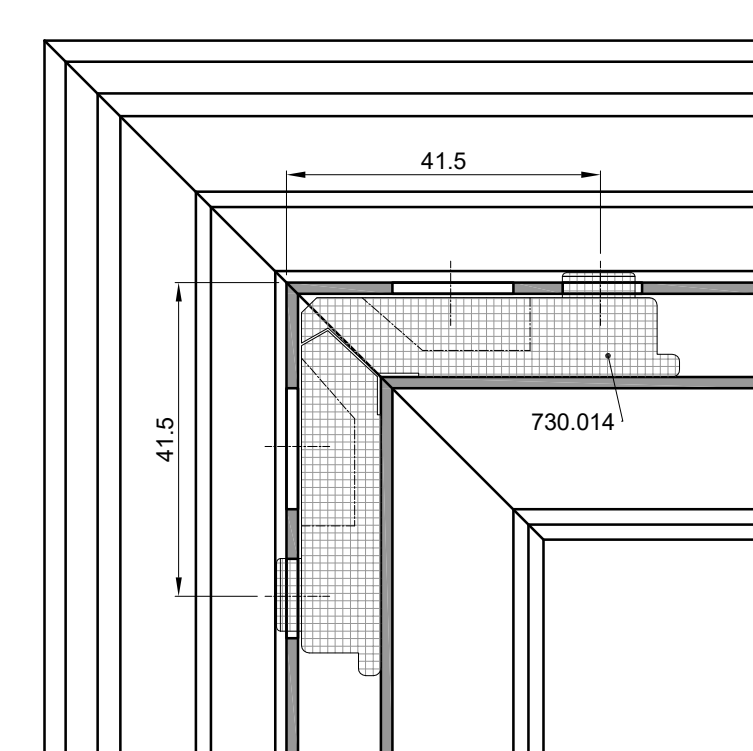
PRESJEK A-A
CROSS SECTION A-A



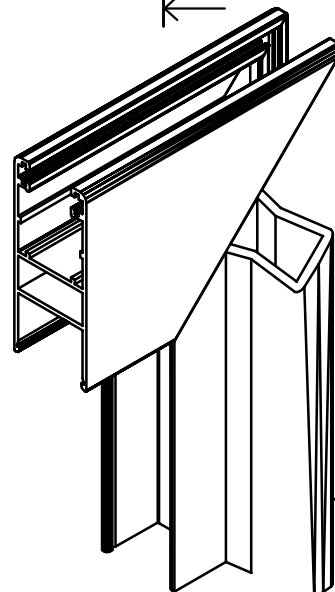
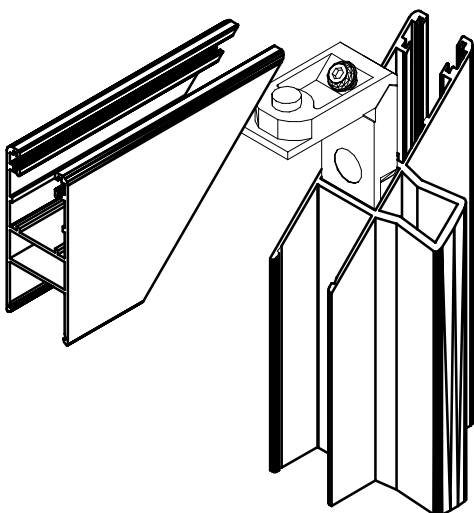
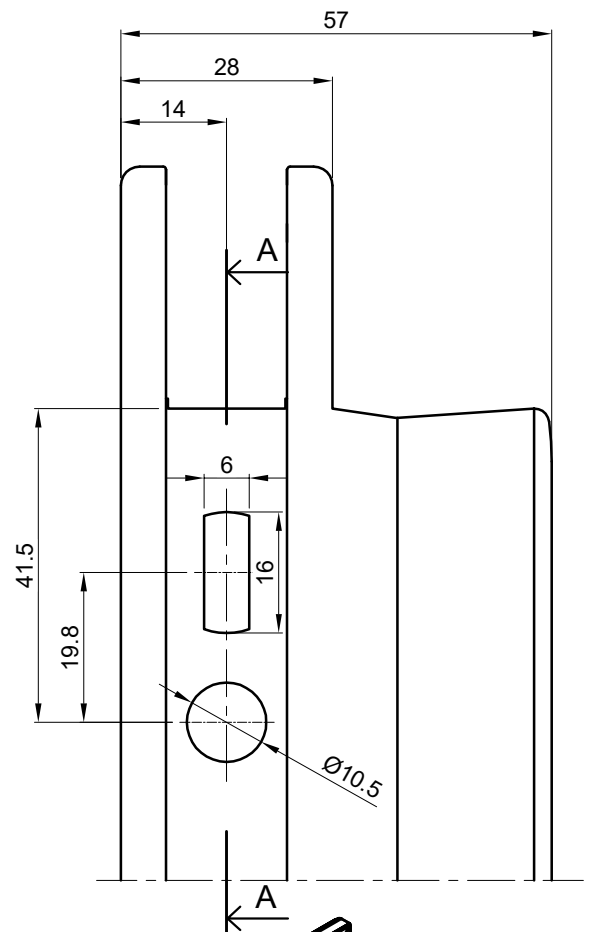


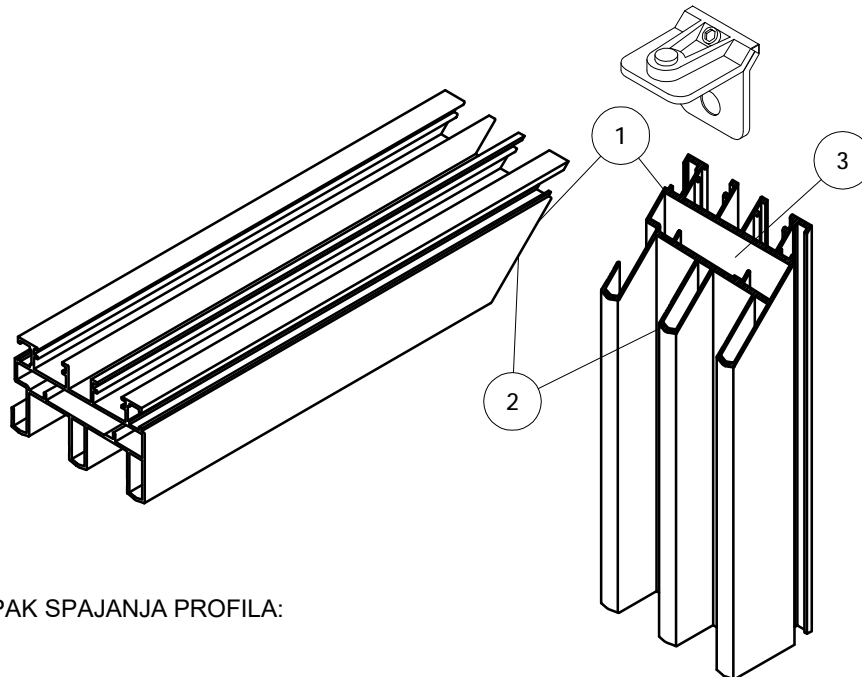
- Obrada profila H-633 za kutnik 730.014
- Processing profile H-633 for corner bracket 730.014

- Obrada na pneumatskoj štanci tipa Feal br.2-art.210.003
- Processing on pneumatic punching machine type Feal br.2-art.210.003



PRESJEK A-A
CROSS SECTION A-A



SPAJANJE PROFILA KUTNICIMA POD KUTEM OD 90°
CONNECTING PROFILES WITH CORNER BRACKETS AT 90°

POSTUPAK SPAJANJA PROFILA:

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

NAPOMENA:

Ovaj postupak spajanja profila primjenjiv je za sve Feal-ove kutnike i njima odgovarajuće komore. Lijepljenjem rezova i kutnika ljepilima za metal osigurava se potrebna zrako- i vodonepropusnosti spoja kao i dodatna mehanička čvrstoća spoja.

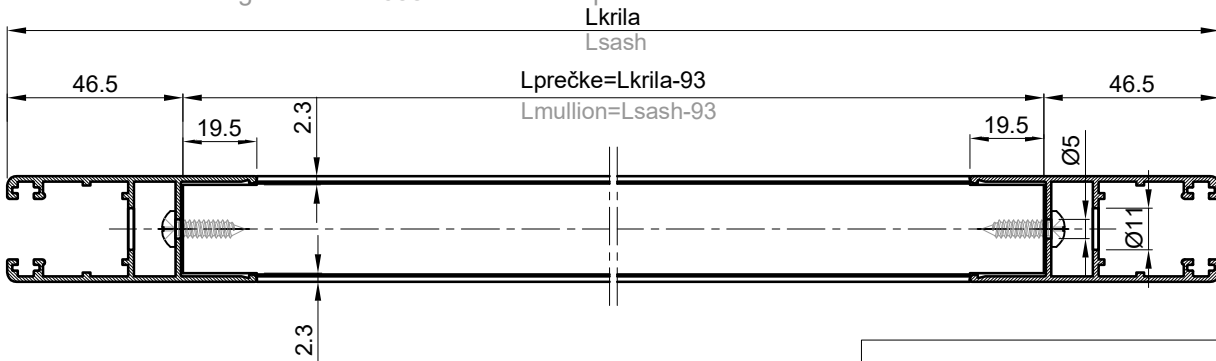
PROFILE CONNECTION PROCEDURE:

1. Surfaces that are connecting - clean and degreased the cut with suitable products
/e.g. Sika Remover 208; Wurth-kat. no.:892 130 30/.
2. Smear surfaces that are connecting with metal glue
/e.g. Sika Force 7851; Wurth-kat.no.:892 130 010/.
3. Spurt metal glue into chambers for the corner bracket (on chamber circumference)
4. Level profiles with corner brackets and connect
5. Leaking glue that comes from the joints remove with ceaning nad degrease product
/e.g. Sika Remover 208; Wurth-kat.no.:892 130 30/.

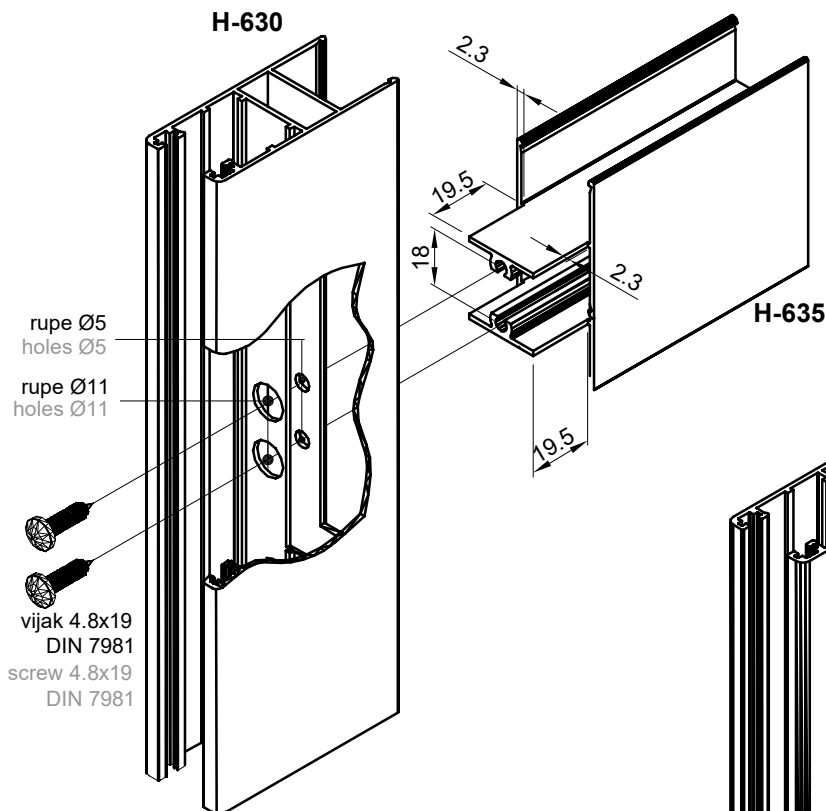
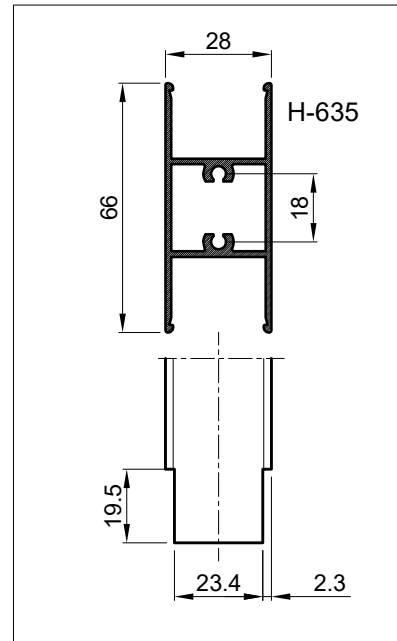
REMARK:

This profile connection procedure is applicable for all Feal corner brackets and their appropriate chambers. Gluing cuts and corners with metal glues provides necessary air and water tightness of the joint nad additional mechanical properties.

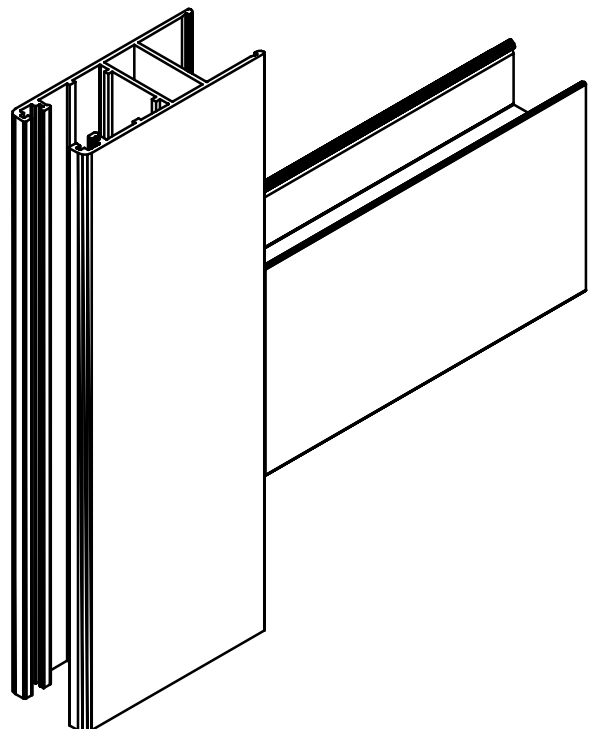
- Obrada prečke H-635 prema profilu krila
- Processing mullion H-635 towards sash profile

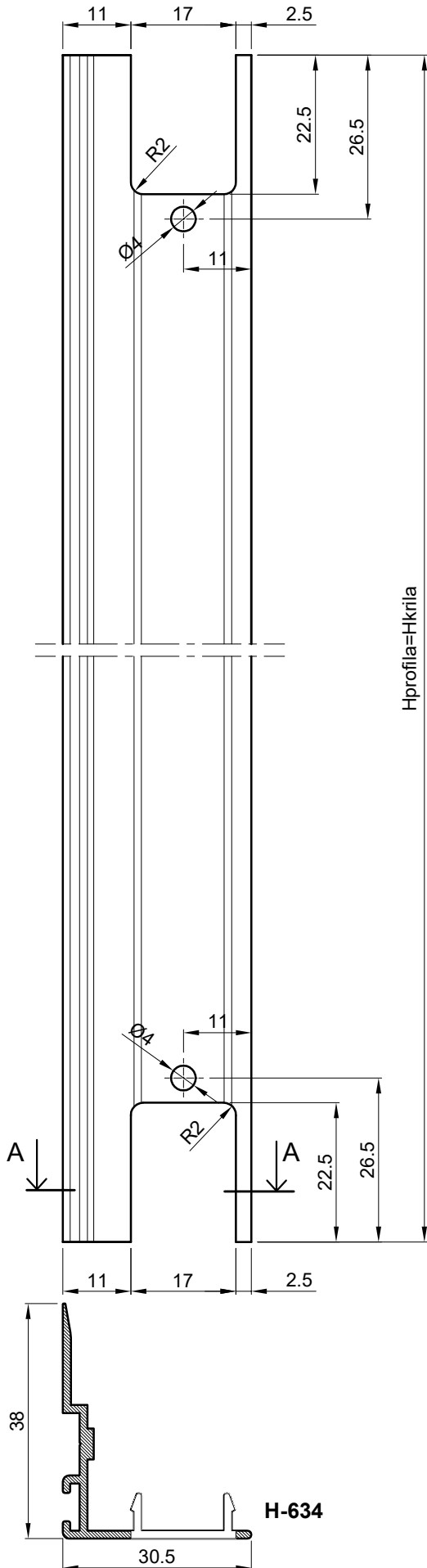


- Obrada profila H-635 čeonim glodalom na vertikalnoj glodalici
- Processing profile H-635 with shell end mill on vertical mill machine

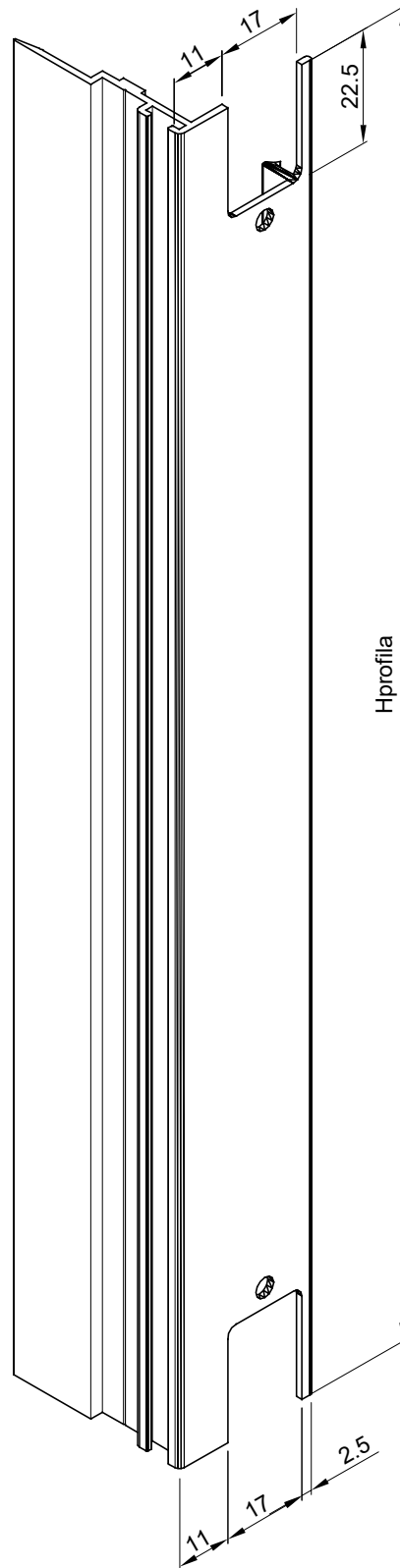


- Obrada profila H-630 na vertikalnoj glodalici /stubnoj bušilici/ vretenastim glodalom /svrdlom/ $\varnothing 5$ i $\varnothing 11$
- Processing profile H-630 on vertical mill machine/press drill with end mill/bore $\varnothing 5$ and $\varnothing 11$



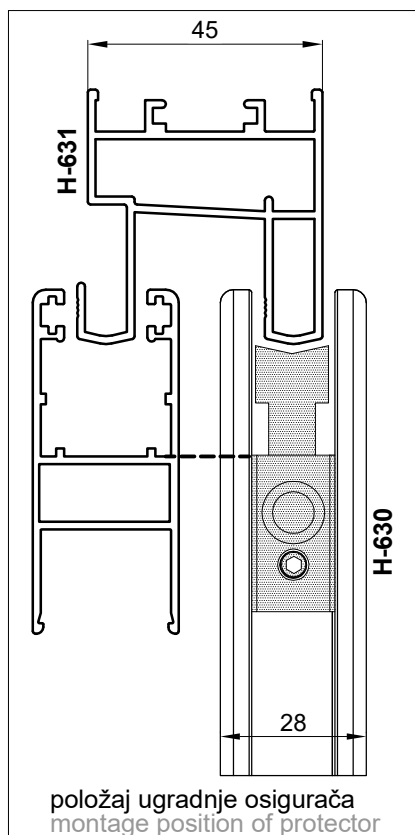
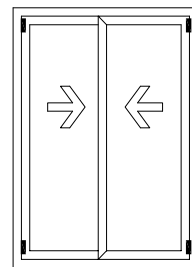


- Obrada profila H-634
- Processing profile H-634



- Obrada na pneumatskoj štanci tipa Feal br.2-art.210.003
- Processing on pneumatic punching machine type Feal br.2-art.210.003

Detalj ugradnje osigurača od vađenja krila 375.069 Montage detail of protector for sash extraction 375.069



Postupak ugradnje:

-Pri izradi okvira krila u profil H-630 se uvuče osigurač od vađenja krila art. 375.069 (dva komada, gore i dolje)

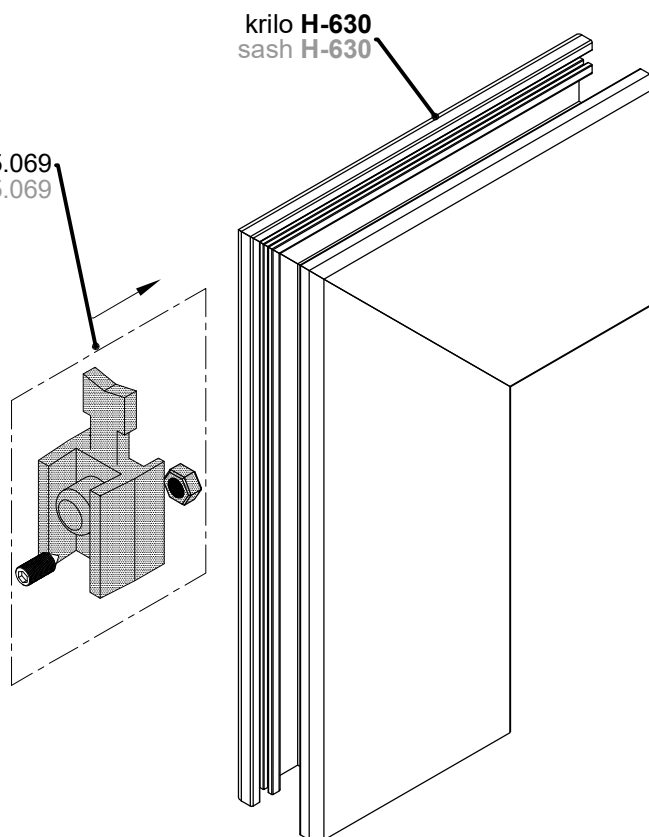
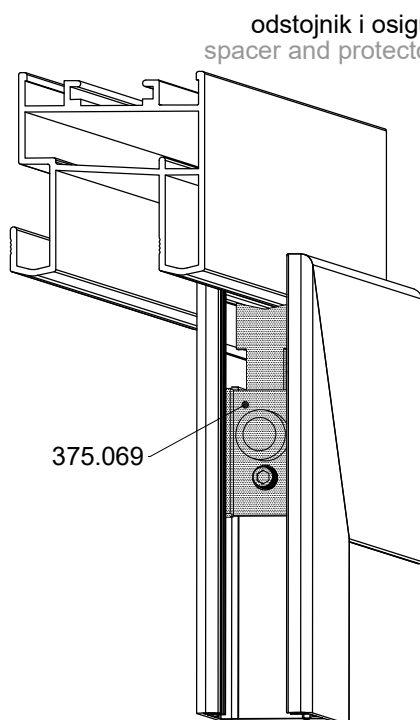
Kad se okvir krila dovede u okvir rama, osigurač od vađenja krila art.375.069 koji smo prethodno već ubacili u okvir krila, se dovodi u radni položaj (vidi crtež) te se imbus vijkom fiksira za krilo.

-Na svako krilo se ugrađuju po dva navedena artikla (gore i dolje).

Procedure of montage:

-While processing sash frame in profile H-630 protector for sash extraction art. nr. 375.069 (two pieces, up and down) is tucked in
When sash frame comes into frame, protector for sash extraction art.375.069, which is already tucked in sash frame, comes into working position (see drawing) and fixed afterwards with allen key to sash.

-On every sash two pieces are mounted (up and down).



Detalj ugradnje maske art. 340.010

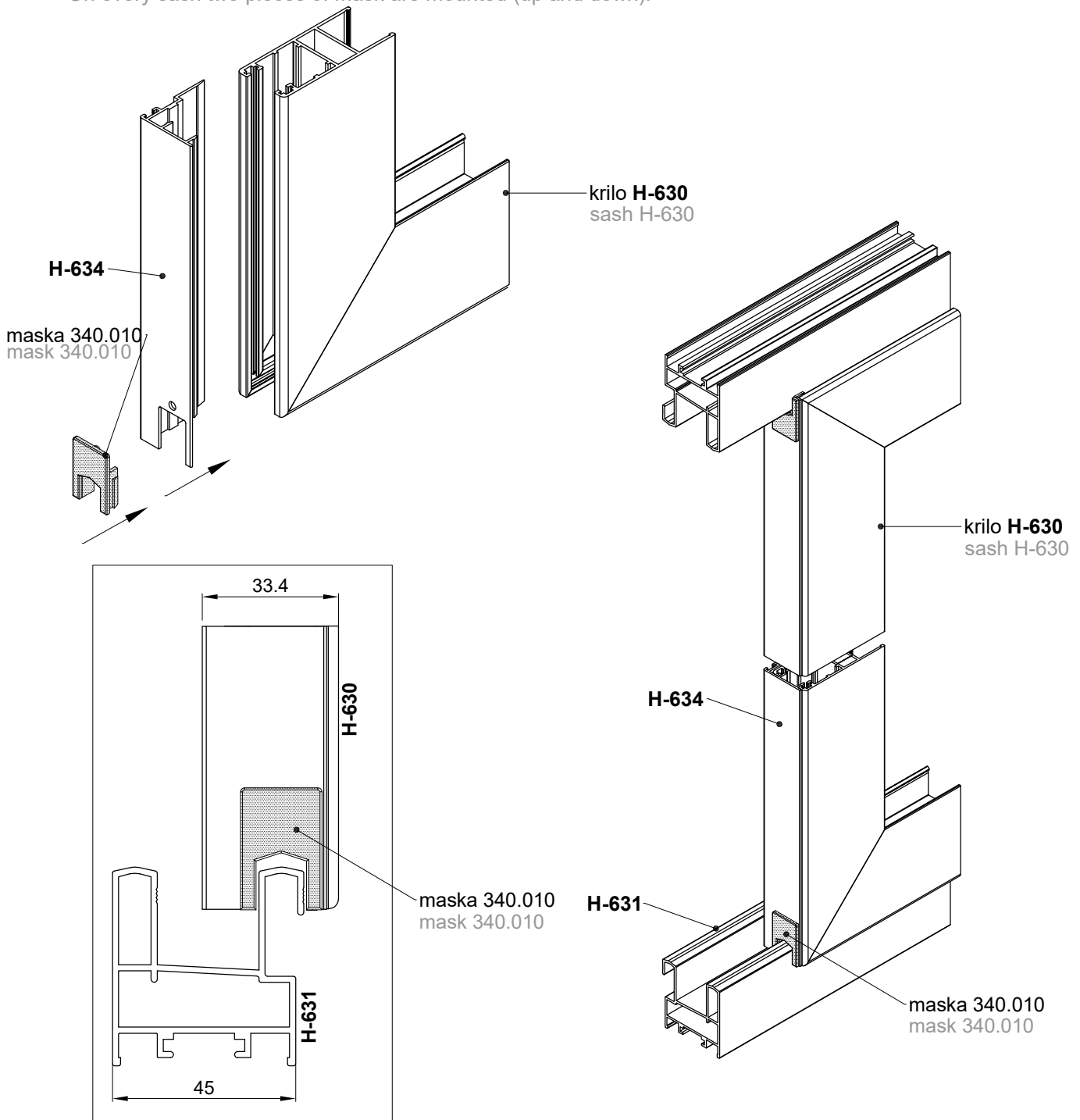
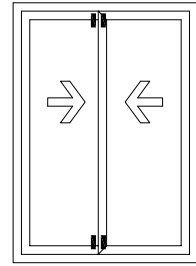
Detail of mask montage art. 340.010

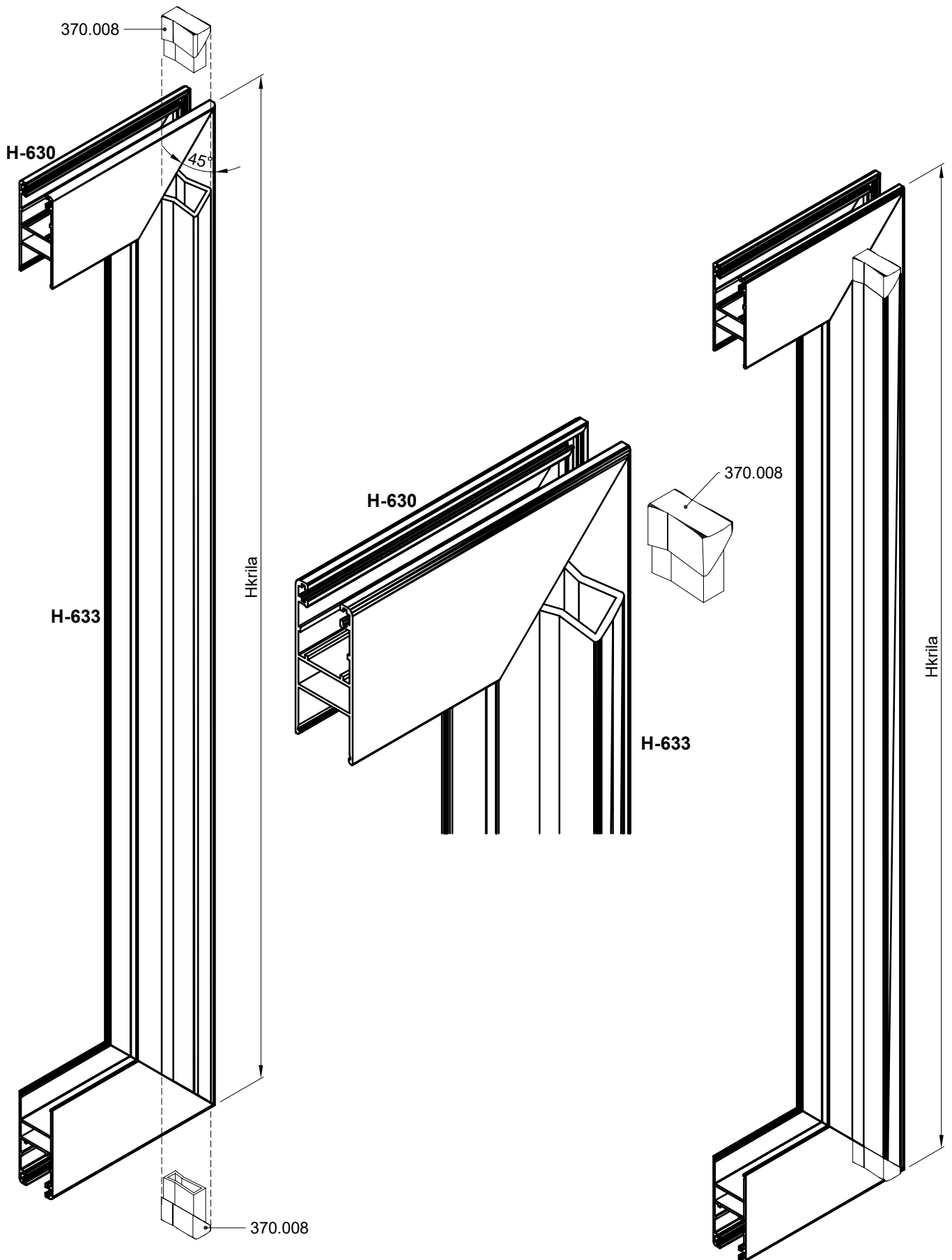
Postupak ugradnje:

- Nakon ugradnje krila u okvir rama, na krajevima krila (gore i dolje), na prethodno obrađeni profil H-634 se ugrađuje maska (art. 340.010) koja maskira prostor za namještanje kotačića (dolje) i prostor za ugradnju krila (gore).
- Na svako krilo se ugrađuju po dva navedena artikla (gore i dolje).

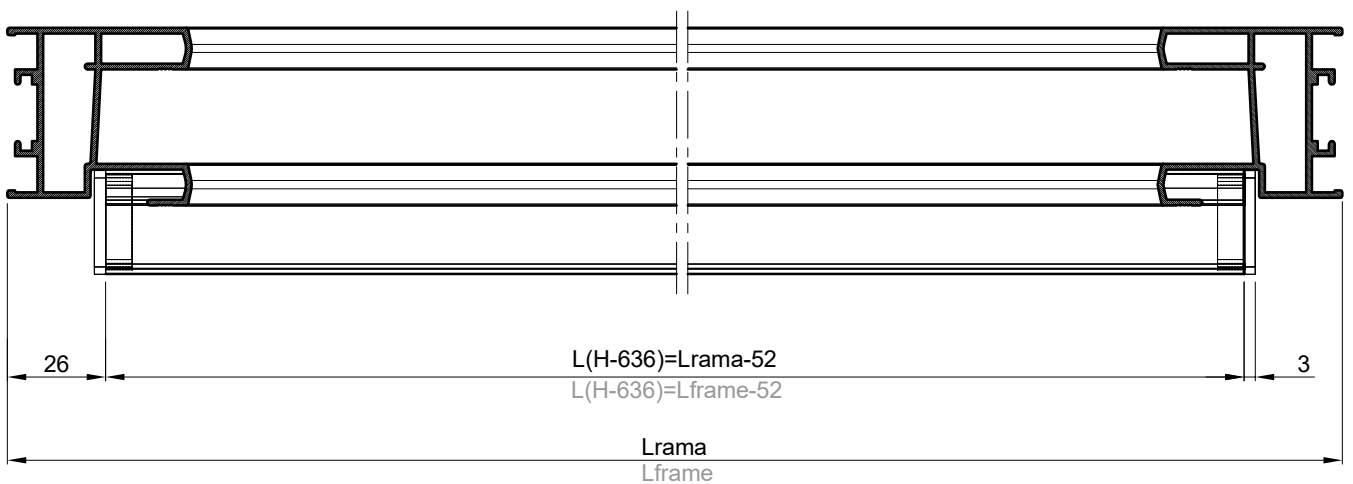
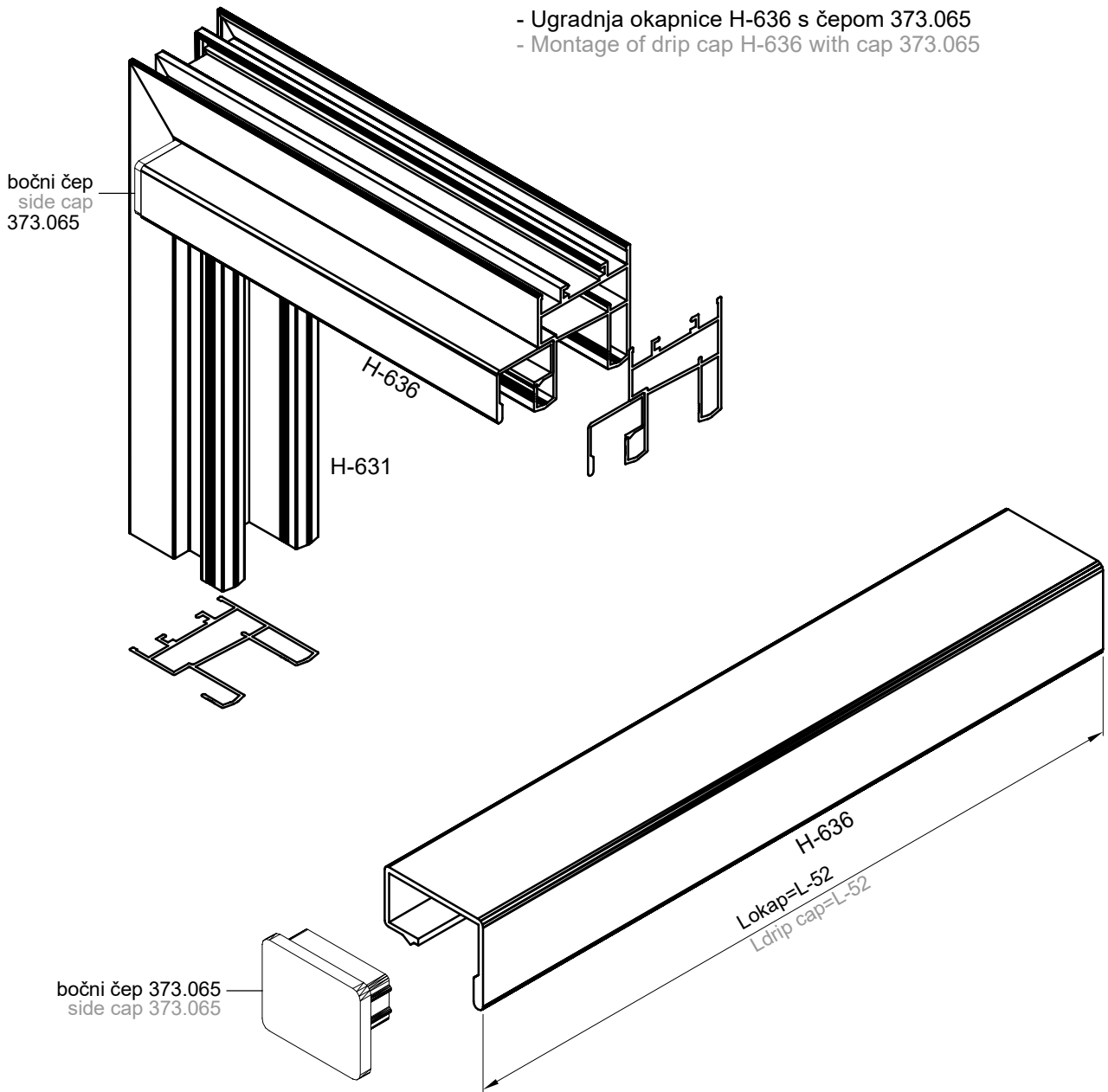
Procedure of montage:

- After installing sash to the frame, on ends of sash (up and down), on preprocessed profile H-634 is placed mask (art. 340.010) which hides the place for positioning bogies (down), and place for positioning sash (up).
- On every sash two pieces of mask are mounted (up and down).

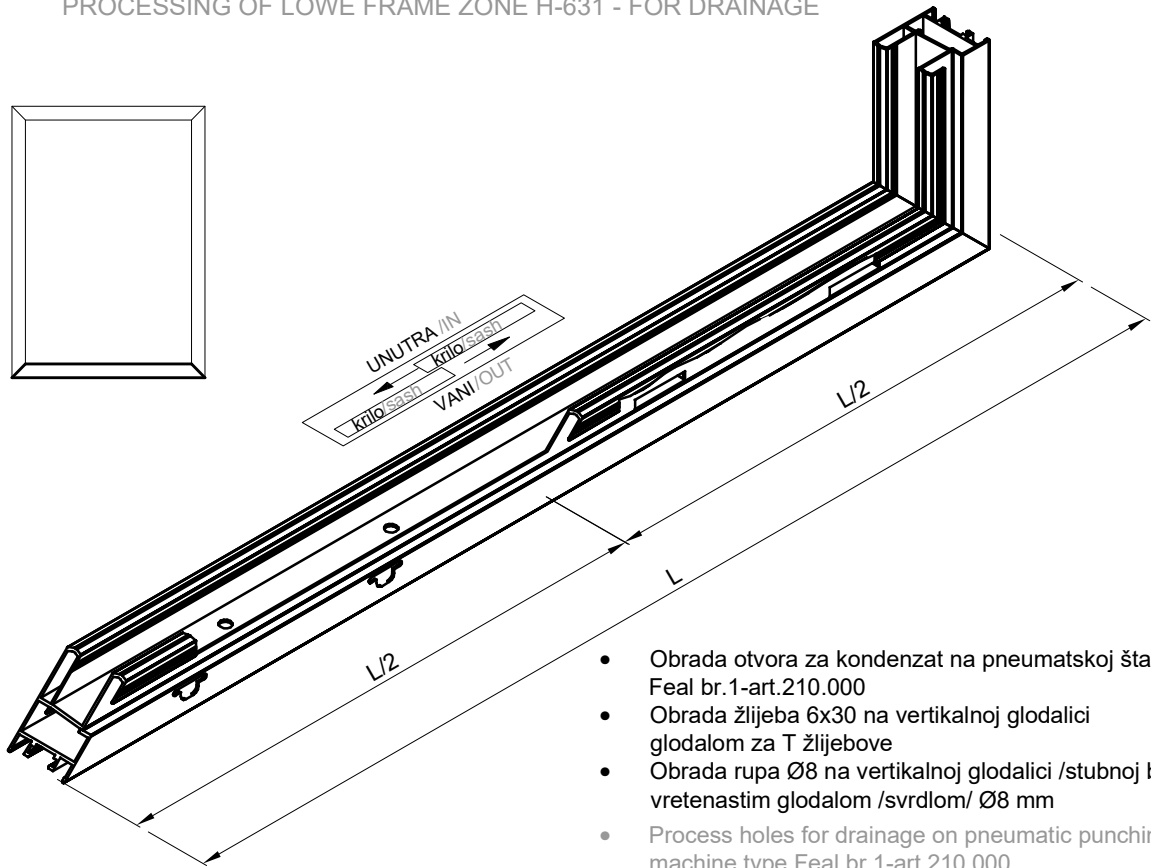




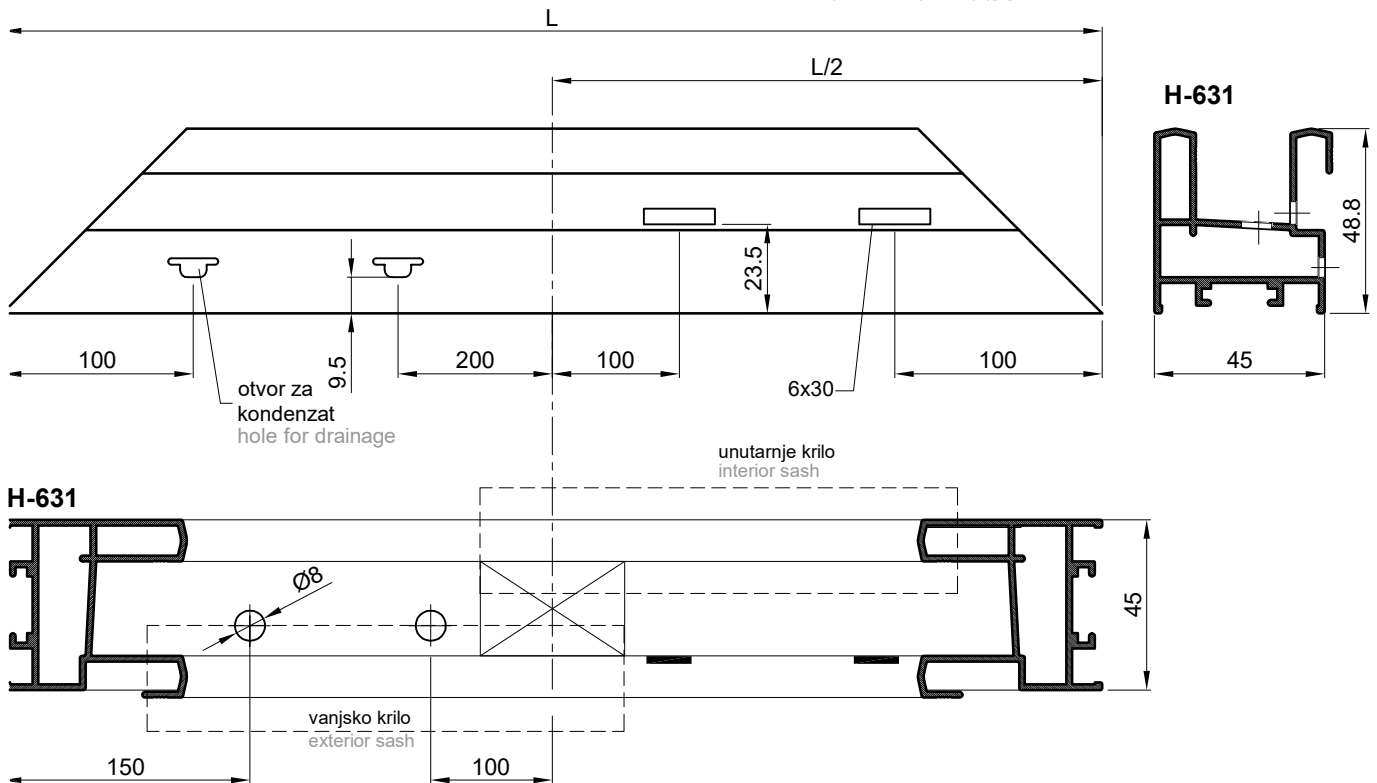
- Ugradnja okapnice H-636 s čepom 373.065
- Montage of drip cap H-636 with cap 373.065



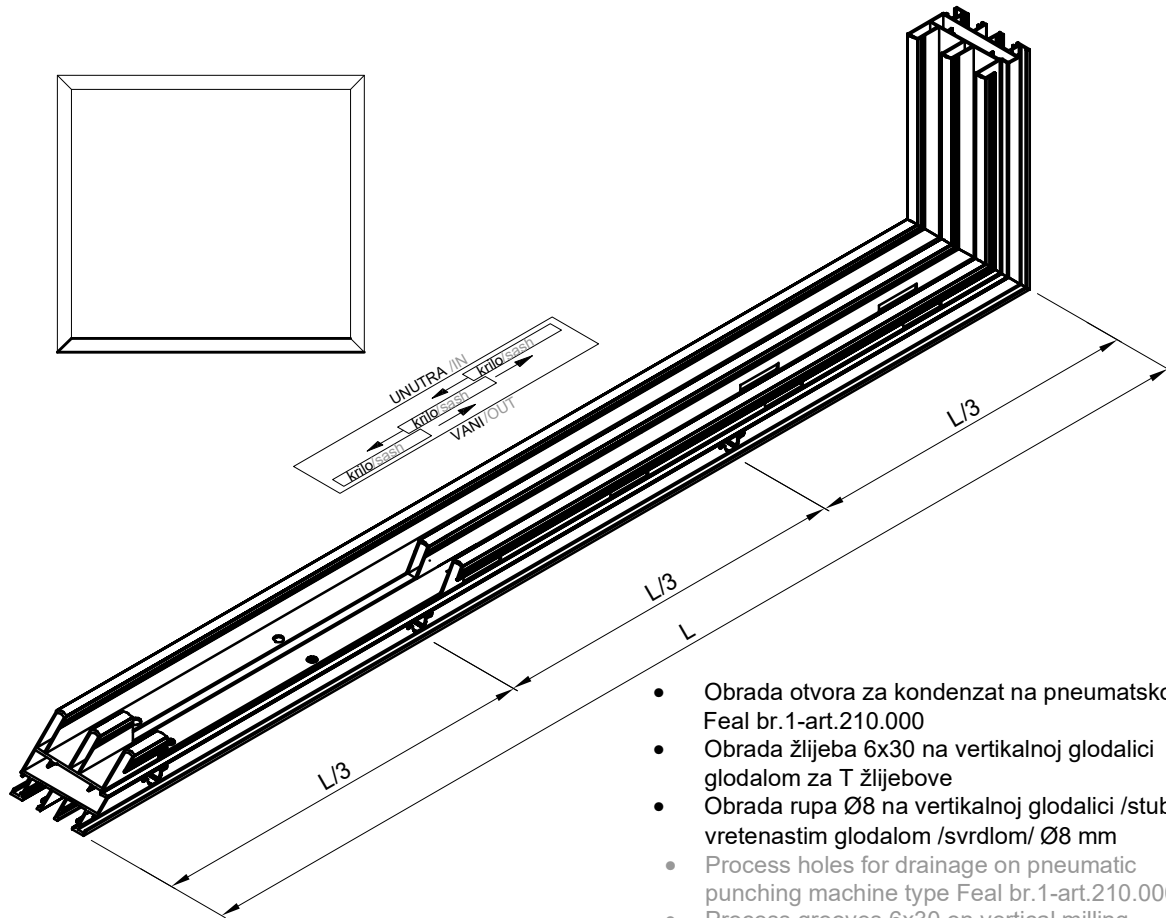
OBRADA DONJEG POJASA RAMA H-631 - ZA ODVOD KAPLJEVINA PROCESSING OF LOWE FRAME ZONE H-631 - FOR DRAINAGE



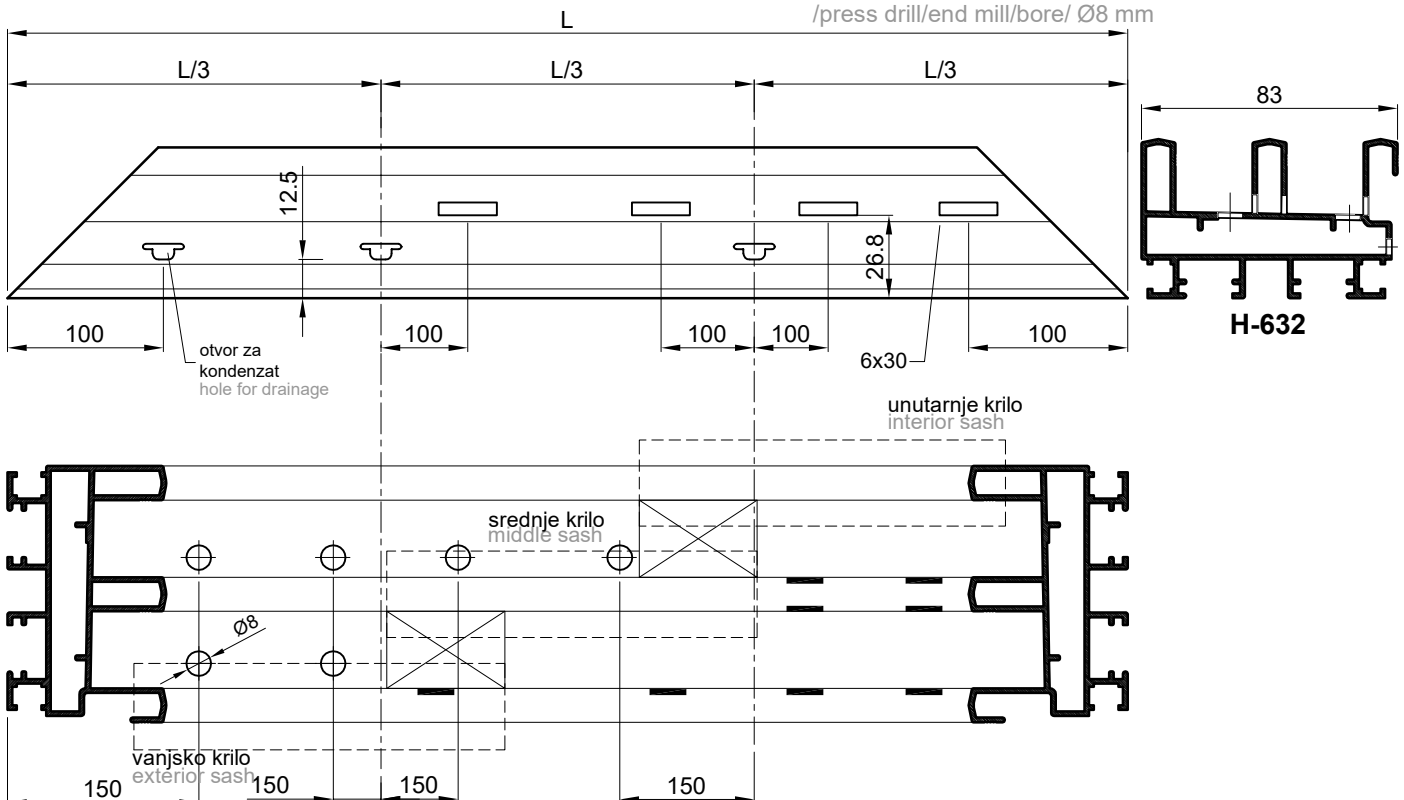
- Obrada otvora za kondenzat na pneumatskoj štanci tipa Feal br.1-art.210.000
- Obrada žlijeba 6x30 na vertikalnoj glodalici glodalom za T žlijebove
- Obrada rupa Ø8 na vertikalnoj glodalici /stubnoj bušilici/ vretenastim glodalom /svrdlom/ Ø8 mm
- Process holes for drainage on pneumatic punching machine type Feal br.1-art.210.000
- Process grooves 6x30 on vertical milling machine with end mill for T groove
- Process holes Ø8 on vertical milling machine /press drill/end mill/bore/ Ø8 mm

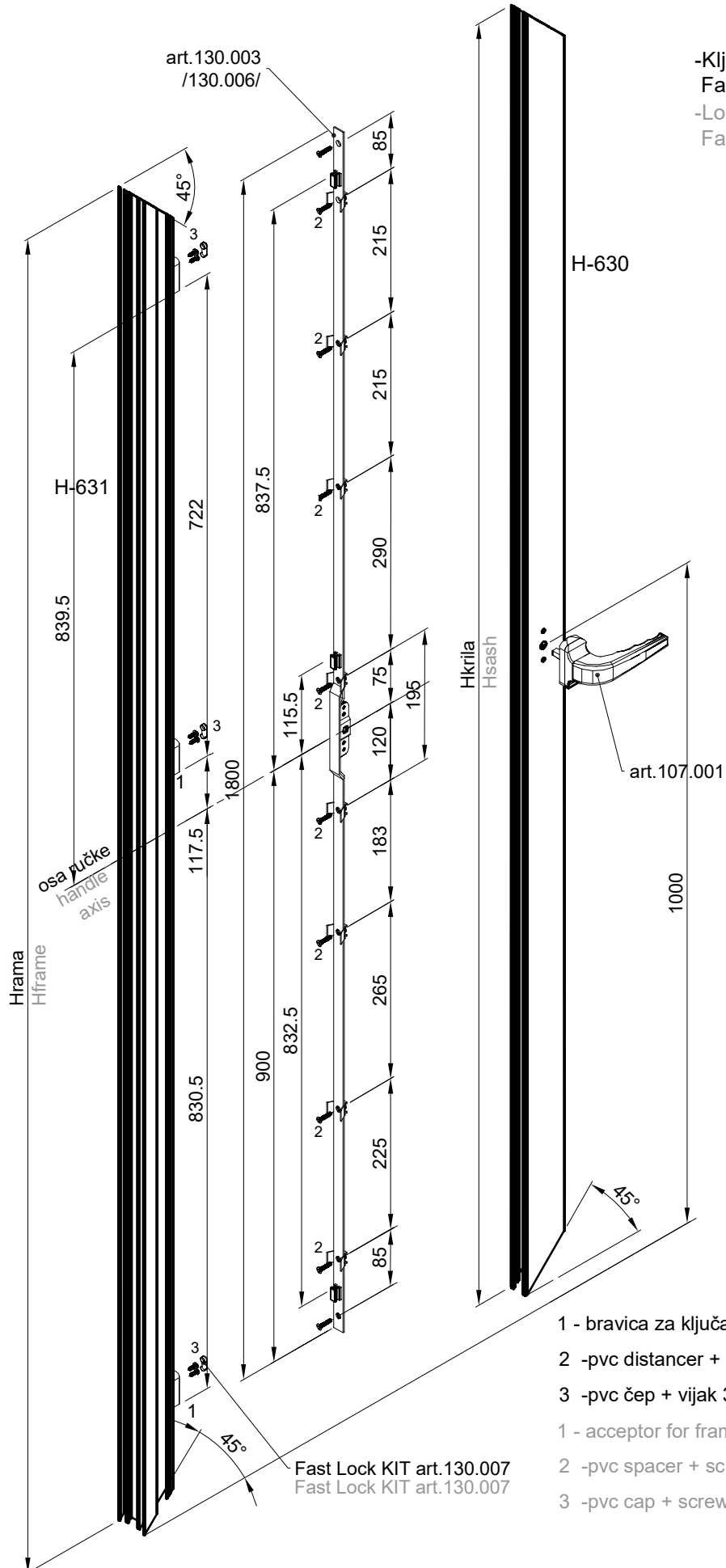


OBRADA DONJEG POJASA RAMA H-632 - ZA ODVOD KAPLJEVINA PROCESSING OF LOWER FRAME ZONE H-632 - FOR DRAINAGE

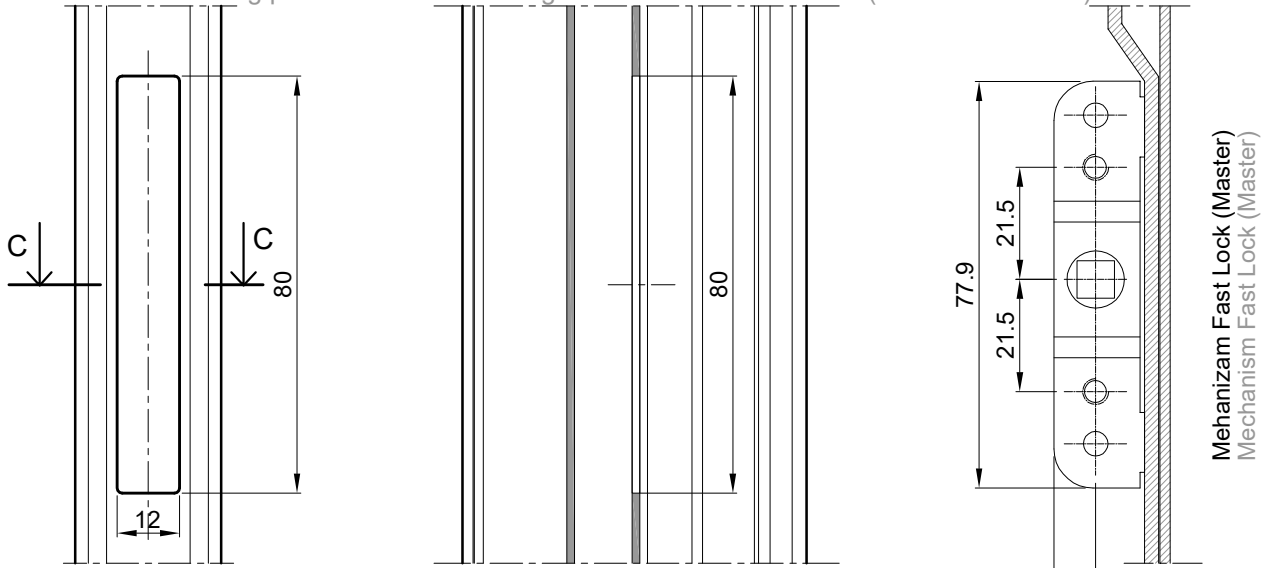


- Obrada otvora za kondenzat na pneumatskoj štanci tipa Feal br.1-art.210.000
- Obrada žlijeba 6x30 na vertikalnoj glodalici glodalom za T žlijebove
- Obrada rupa Ø8 na vertikalnoj glodalici /stubnoj bušilici/ vretenastim glodalom /svrdlom/ Ø8 mm
- Process holes for drainage on pneumatic punching machine type Feal br.1-art.210.000
- Process grooves 6x30 on vertical milling machine with end mill for T groove
- Process holes Ø8 on vertical milling machine /press drill/end mill/bore/ Ø8 mm

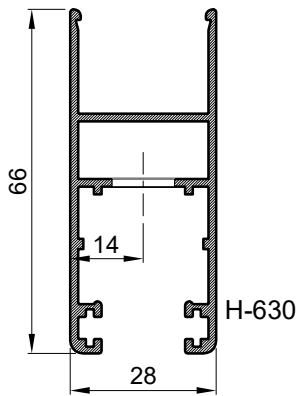




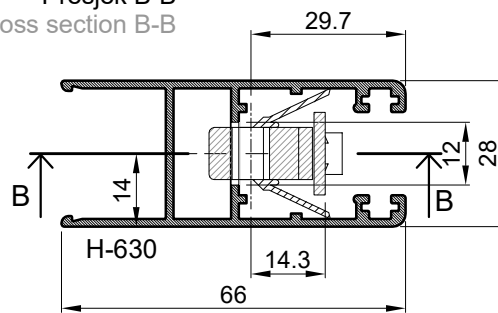
-Obrada profila H-630 za ugradnju mehanizma Fast Lock (130.003 i 130.006)
-Processing profile H-630 for montage of mechanism Fast Lock (130.003 i 130.006)



Presjek B-B
Cross section B-B



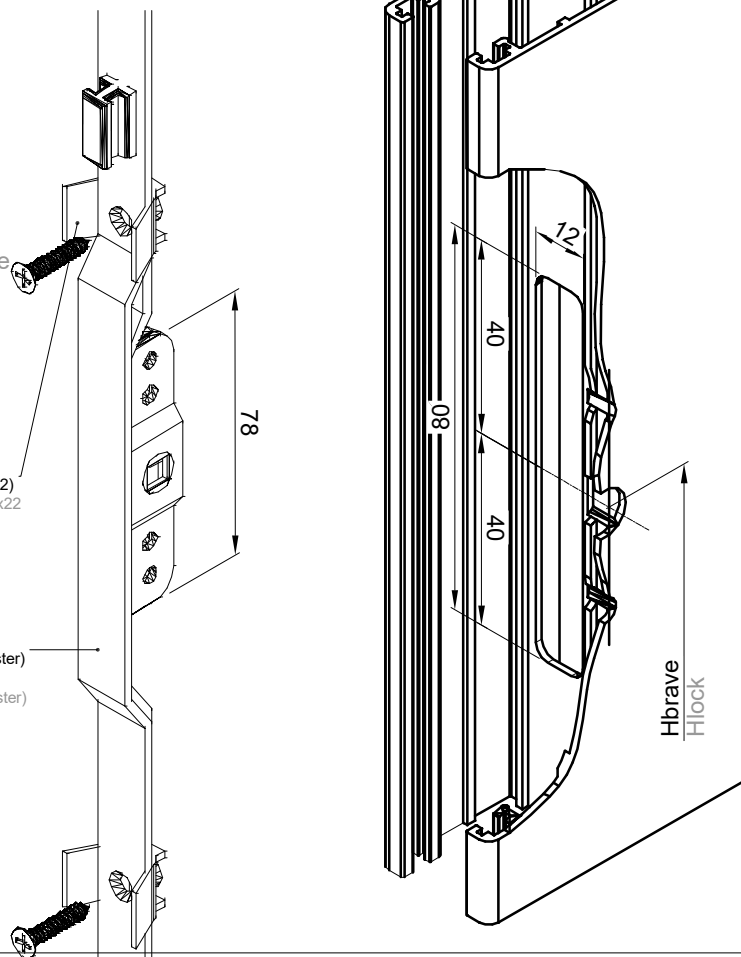
Presjek C-C
Cross section C-C



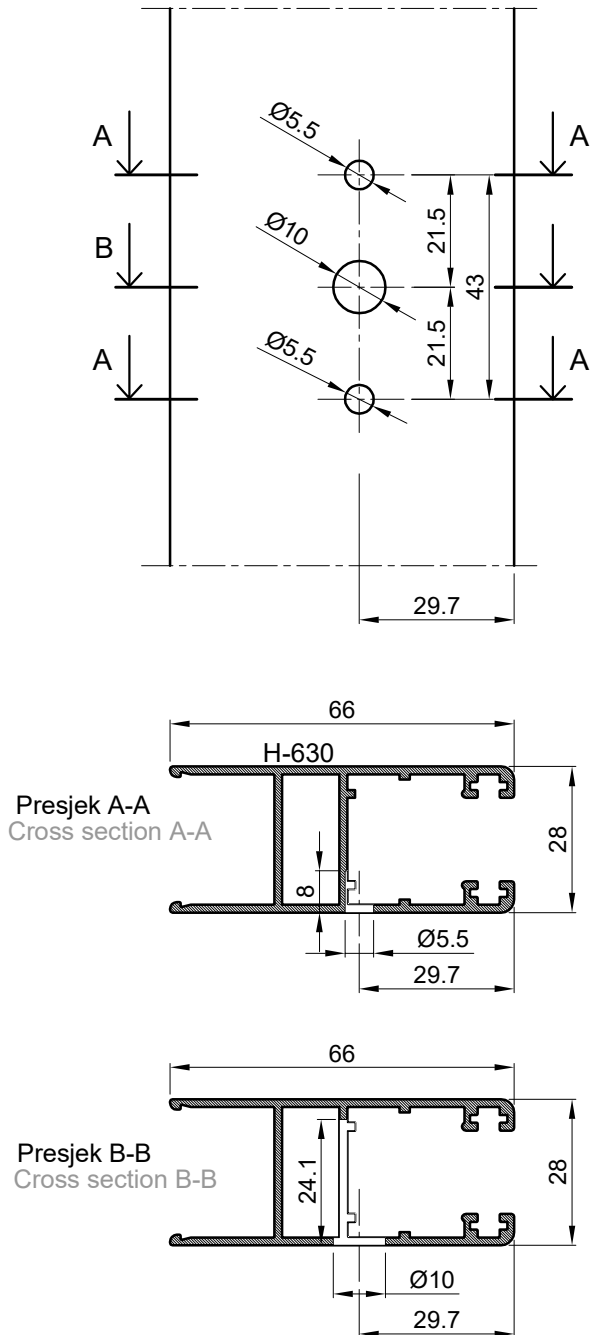
- Obrada na vertikalnoj glodalici vretenastim glodalom
- Processing on vertical milling machine with end mill

distancer s vijkom(4.8x22 DIN 7982)
spacer with screw(4.8x22 DIN 7982)

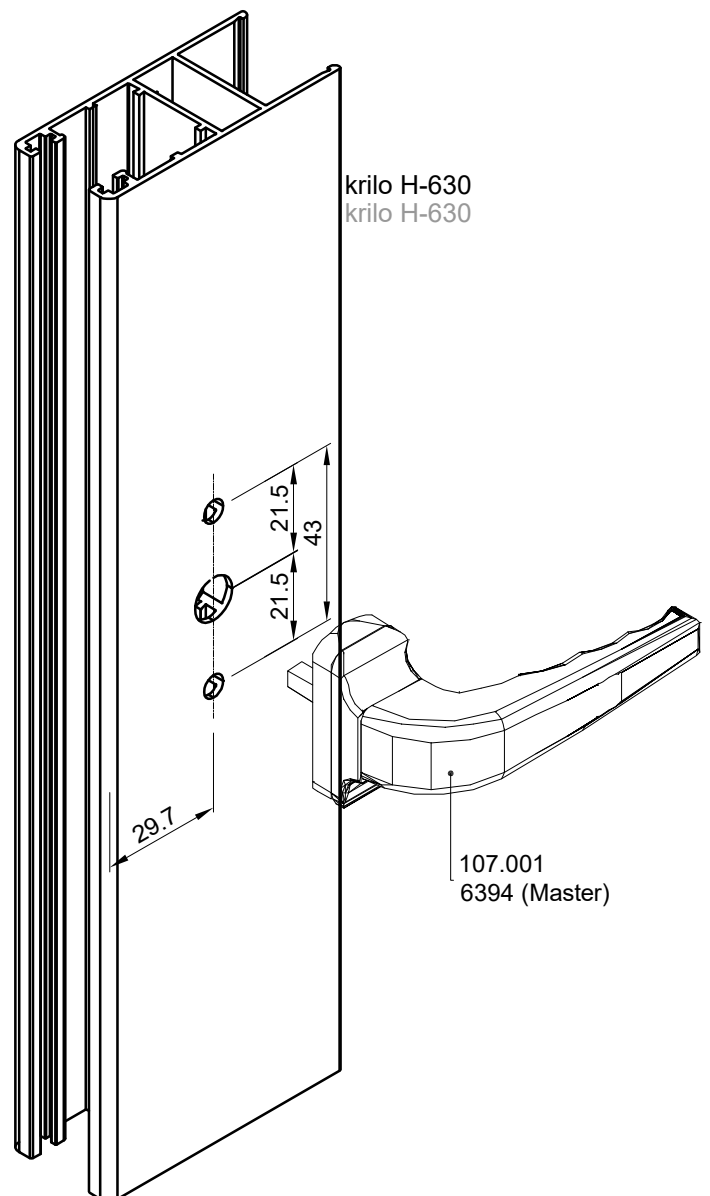
Mehanizam FAST LOCK (Master)
Mechanism FAST LOCK (Master)



- Obrada krila H-633 za ugradnja ručke 107.001 (art.6394-Master)
- Processing sash profile H-633 for handle montage 107.001 (art.6394-Master)

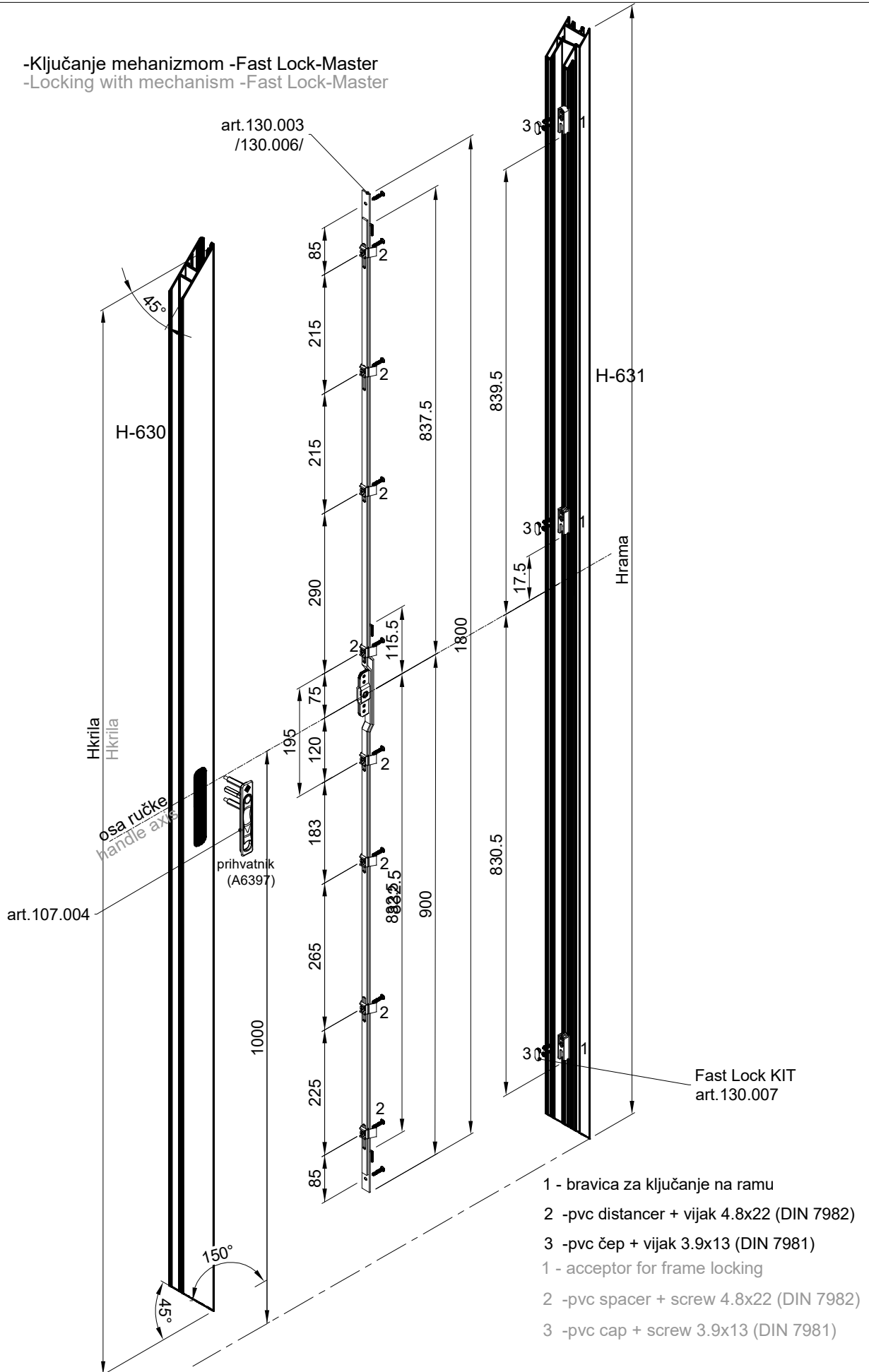


- Obrada rupa na vertikalnoj glodalici /stubnoj bušilici/ vretenastim glodalom /svrdlom/
- Processing on vertical milling machine/press drill end mill/bore/

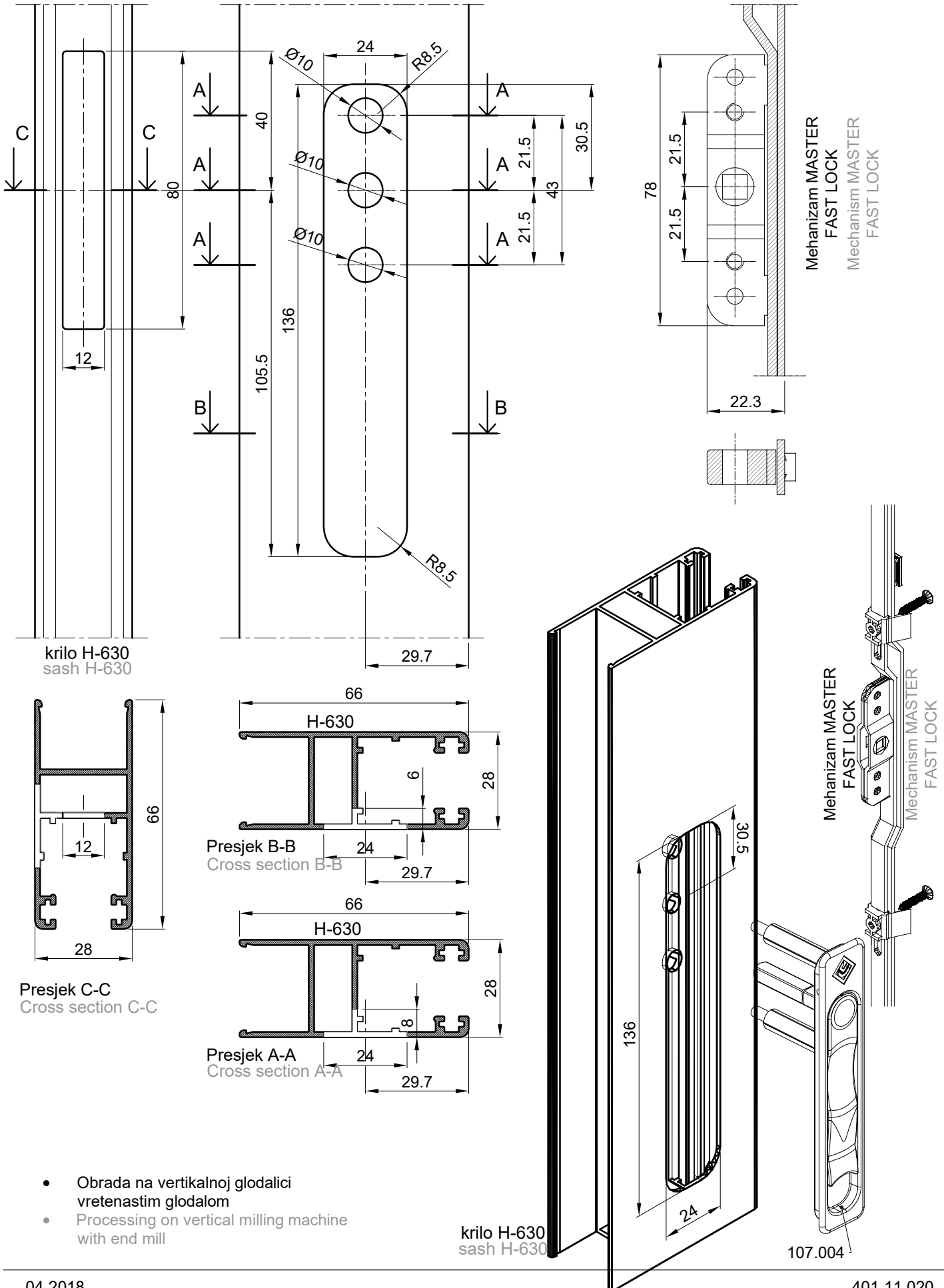


- Obrada na vertikalnoj glodalici vretenastim glodalom
- Processing on vertical milling machine with end mill

-Ključanje mehanizmom -Fast Lock-Master
-Locking with mechanism -Fast Lock-Master

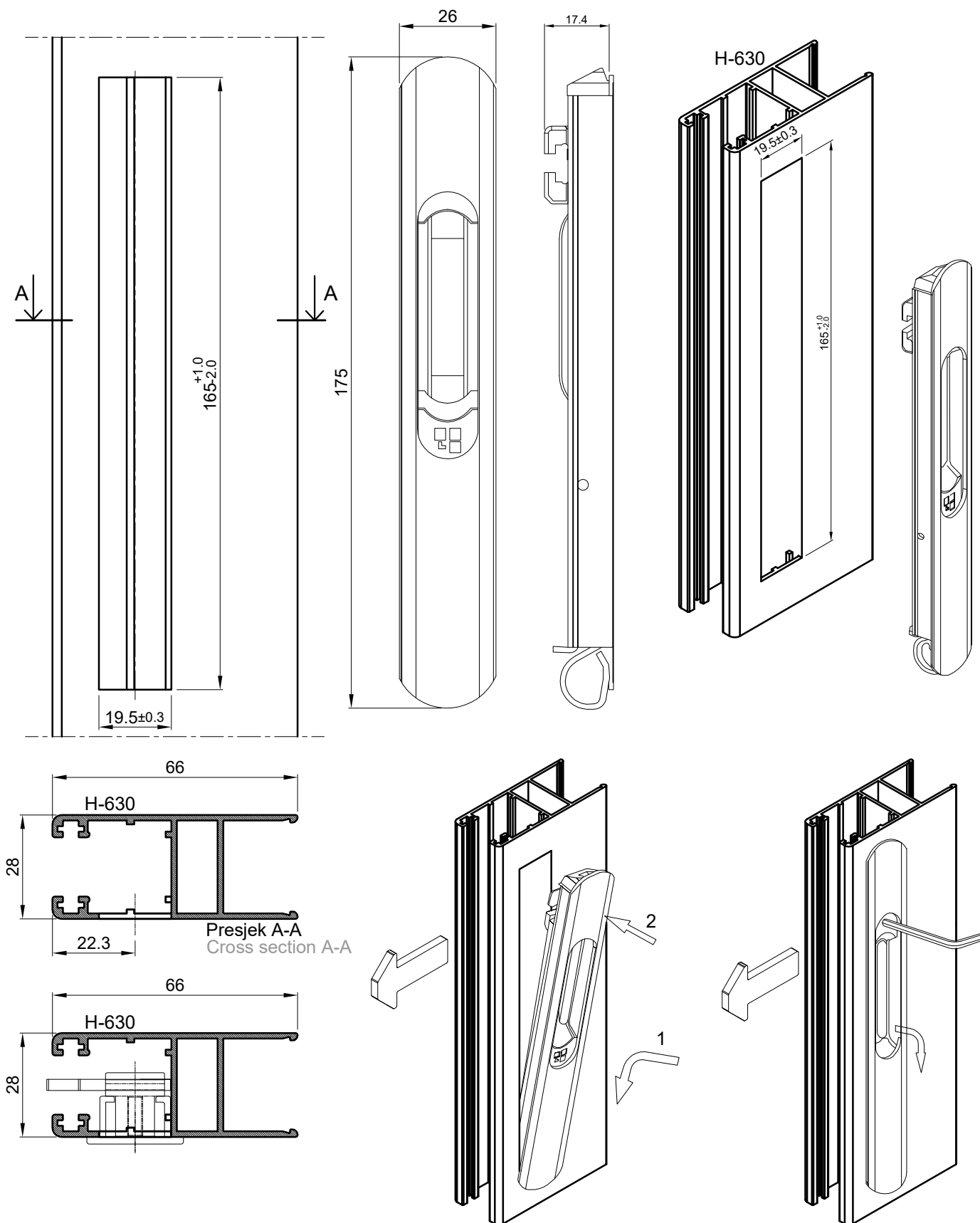


- Obrada krila H-633 za ugradnja mehanizma art.130.003(130.006) i pogonske ručice 107.004 (art. 6397-Master)
 - Processing profile H-633 for montage of mech. art.130.003(130.006) and driving handle 107.004 (art. 6397-Master)



- Obrada na vertikalnoj glodalici vretenastim glodalom
- Processing on vertical milling machine with end mill

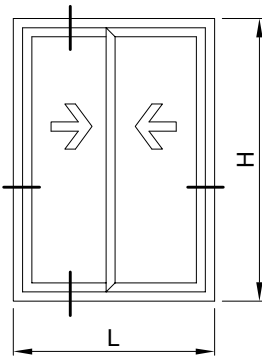
- Obrada krila H-630 za ugradnja mehanizma art.140.003 (bravica za ključanje u jednoj točki art.02988 Giese)
- Processing profile H-630 for montage of mech. art.140.003 (lock in one point art.02988 Giese)



Nakon postavljanja bravice u obrađeni otvor, jezičak se pričvrsti pomoću imbusa prema skici.

After placing the lock in the machined hole, the tab is fastened with an hex key as shown in the sketch

Rezna lista
Cutting list



PROFILI PROFILES		kom pcs	mjera measure	pilanje cutting
H-631	vodoravnica okvira frame horizontal profile	2	L	45-45
H-631	okomica okvira frame vertical profile	2	H	45-45
H-630	vodoravnica krila sash horizontal profile	4	Lkr=L/2-5	45-45
H-630	okomica krila sash vertical profile	4	Hkr=H-76.5	45-45
H-634	završni profil finish profile	2	H-76.5	90-90
H-636	okapnica drip cap profile	1	L-52	90-90

OKOVI HARDWARE

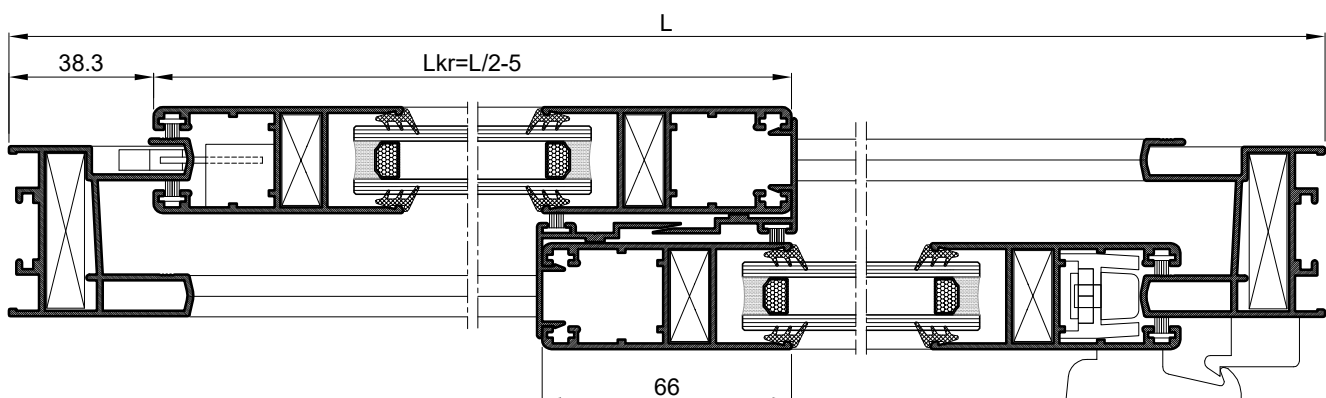
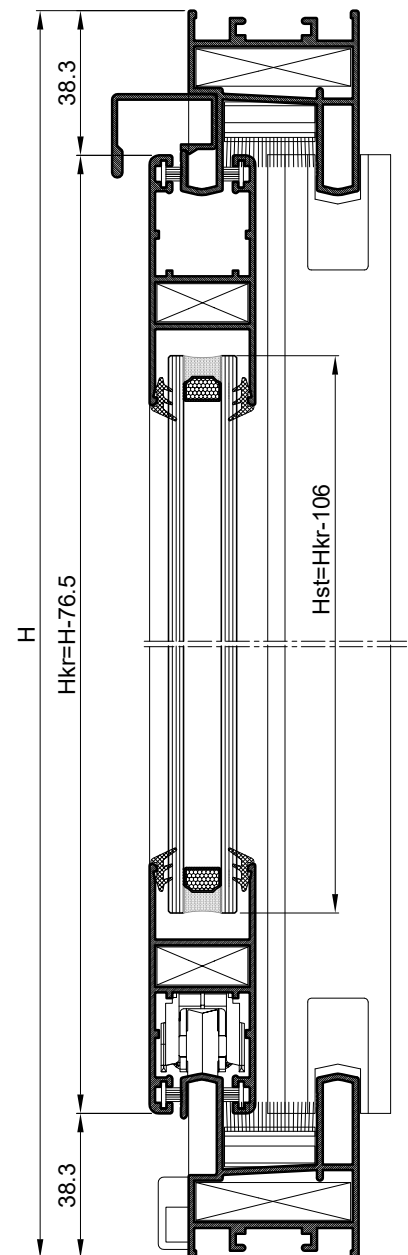
730.013	kutnik okvira corner bracket frame	4		
730.014	kutnik krila corner bracket sash	8		
143.008	kotačići-komplet za dva krila bogies-set for two sash			
140.003	3087 bravica-jezičak s prihvatnikom 1 3087 espag.-fatchbolt with acceptor (safety panel)	1		
140.003	GS 3000 bravica-pogonski dio 1 GS 3000 espag.-driving part	1		
105.001	ručka za pogon i zatvarač Handle driving and closer	1		
340.010	komplet brtvilo i maska set gasket and mask	1+4		
373.003	maska za drenažni otvor mask for drainage hole	2		
375.069	odstojnik spacer	4		
373.065	umetak za H-636 insert for H-636	par pair		

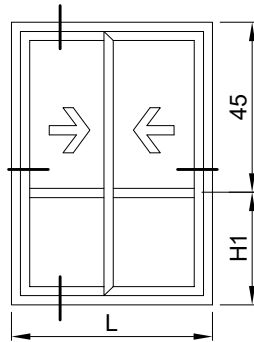
BRTVE GASKET

311.001	brtva prema staklu gasket to the glass	4L+8H	
Četkasta brtva 7x5.5 347.004 brush gasket 7x5.5 347.004		4L+6H	

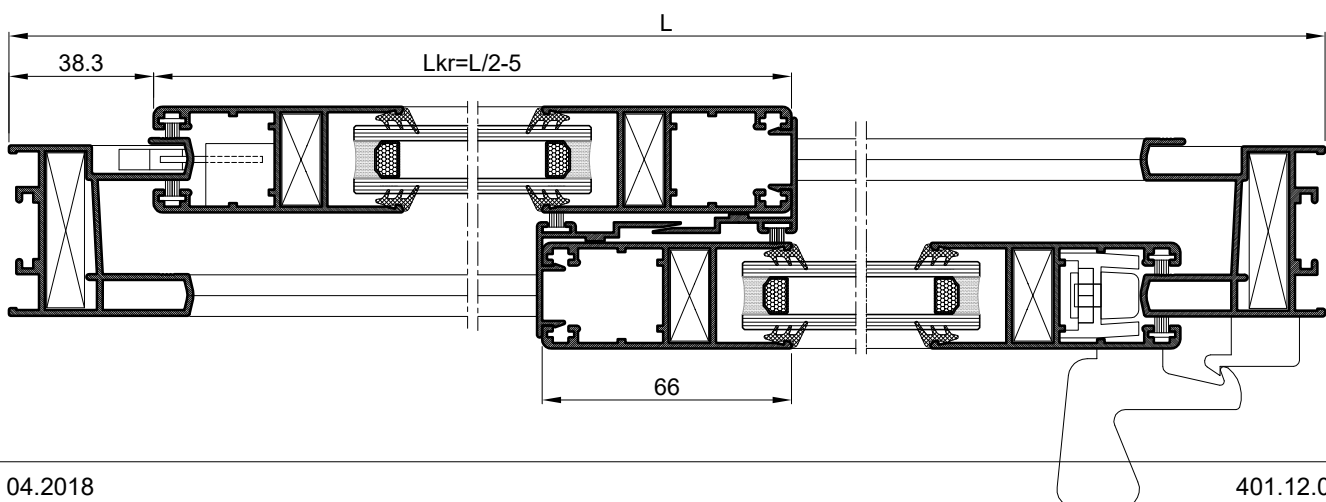
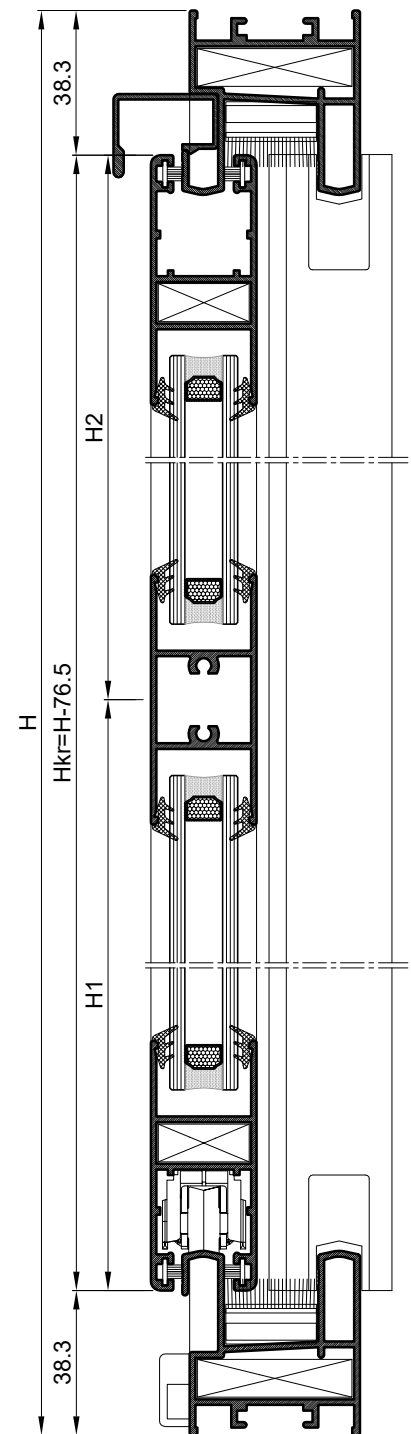
STAKLO GLASS

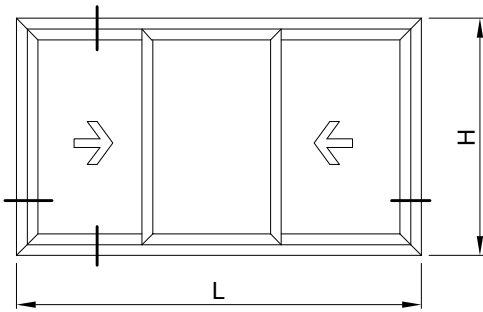
18 mm	2	Lkr-106 x Hkr-106
-------	---	-------------------





PROFILI PROFILES		kom pcs	mjera measure	pilanje cutting
H-631	vodoravnica okvira frame horizontal profile	2	L	45-45
H-631	okomica okvira frame vertical profile	2	H	45-45
H-630	vodoravnica krila sash horizontal profile	4	L/2-5	45-45
H-630	okomica krila sash vertical profile	4	H-76.5	45-45
H-635	prečka mullion	2	Lkr-92	90-90
H-634	završni profil finish profil	2	H-76.5	90-90
H-636	okapnica drip cap profile	1	L-52	90-90
OKOVI HARDWARE				
730.013	kutnik okvira corner bracket frame	4		
730.014	kutnik krila corner bracket sash	8		
143.008	kotačići-komplet za dva krila bogies-set for two sash			
140.003	3087 bravica-jezičak s prihvatnikom 3087 espag-latchbolt with acceptor	1		
140.003	GS 3000 bravica-pogonski dio 1 GS 3000 espag.-driving part			
105.001	ručica za pogon i zatvarač handle for driving and closer	1		
340.010	komplet-brtvilo i maska set gasket and mask	1+4		
373.003	maska za drenažni otvor mask for drainage hole	2		
375.069	odstojnik spacer	4		
373.065	umetak za H-636 insert for H-636	par pair		
BRTVE GASKETS				
311.001	brtva prema staklu gasket to the glass		8L+8H	
Četkasta brtva 7x5.5 347.004 brush gasket 7x5.5 347.004			4L+6H	
STAKLO GLASS				
18 mm		2	Lkr-106 x H1-73	
18 mm		2	Lkr-106 x H2-73	





PROFILI PROFILES		kom pcs	mjera measure	pilanje cutting
H-631	vodoravnica okvira frame horizontal profile	2	L	45-45
H-631	okomica okvira frame vertical profile	2	H	45-45
H-630	vodoravnica krila sash horizontal profile	6	L/3+18.5	45-45
H-630	okomica krila sash vertical profile	6	H-76.5	45-45
H-634	završni profil finish profile	4	H-76.5	90-90
H-636	okapnica drip cap profile	1	L-52	90-90

OKOVI HARDWARE

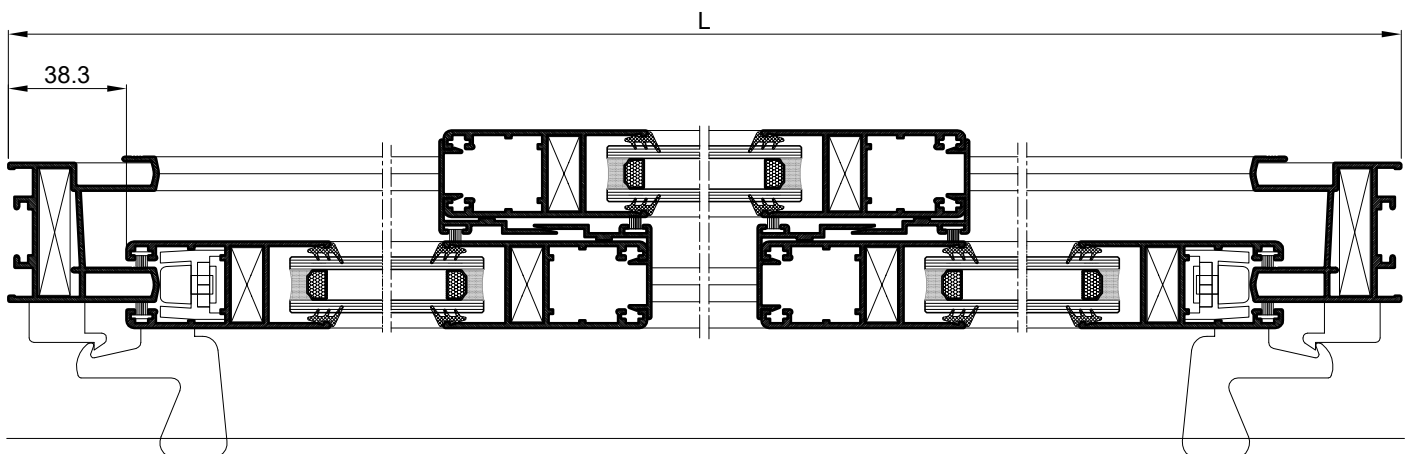
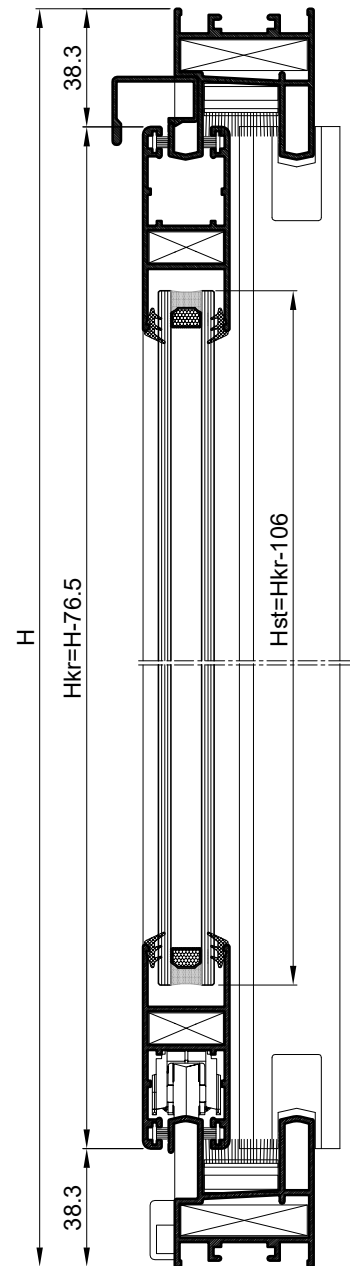
730.013	kutnik okvira corner bracket frame	4		
730.014	kutnik krila corner bracket sash	12		
143.008	kotačići-komplet za tri krila bogies-set for three sash			
105.001	ručka za pogon i zatvarač handle for driving and closer	2		
340.010	komplet brtvilo i maska set gasket and mask	2+8		
373.003	maska za drenažni otvor mask for drainage hole	3		
375.069	odstojnik spacer	4		
373.065	umetak za H-636 insert for H-636	par pair		

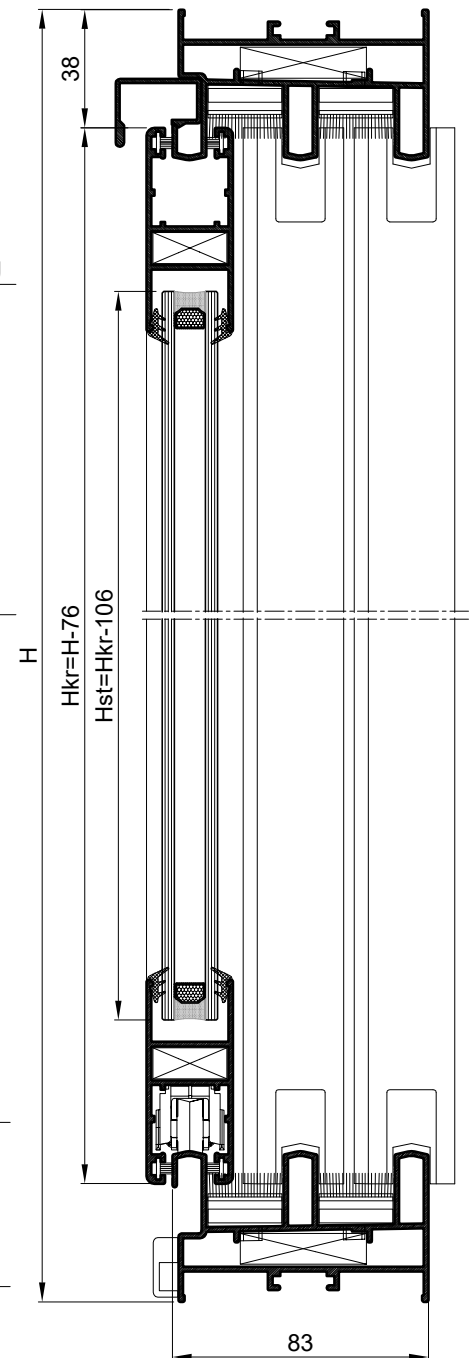
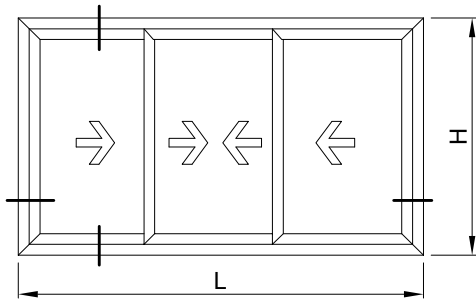
BRTVE GASKET

311.001	brtva prema staklu gasket to the glas		4L+12H	
Četkasta brtva 7x5.5 347.004 brush gasket 7x5.5 347.004			4L+8H	

STAKLO GLASS

18 mm		3	Lkr-106 x Hkr-106	
-------	--	---	-------------------	--





PROFILI PROFILES		kom pcs	mjera measure	pilanje cutting
H-644	vodoravnica okvira frame horizontal profile	2	L	45-45
H-644	okomica okvira frame vertical profile	2	H	45-45
H-630	vodoravnica krila sash horizontal profile	6	$L/3+18.5$	45-45
H-630	okomica krila sash vertical profile	6	H-76	45-45
H-634	završni profil finish profile	4	H-76	90-90
H-636	okapnica drip cap profile	1	L-52	90-90

OKOVI HARDWARE

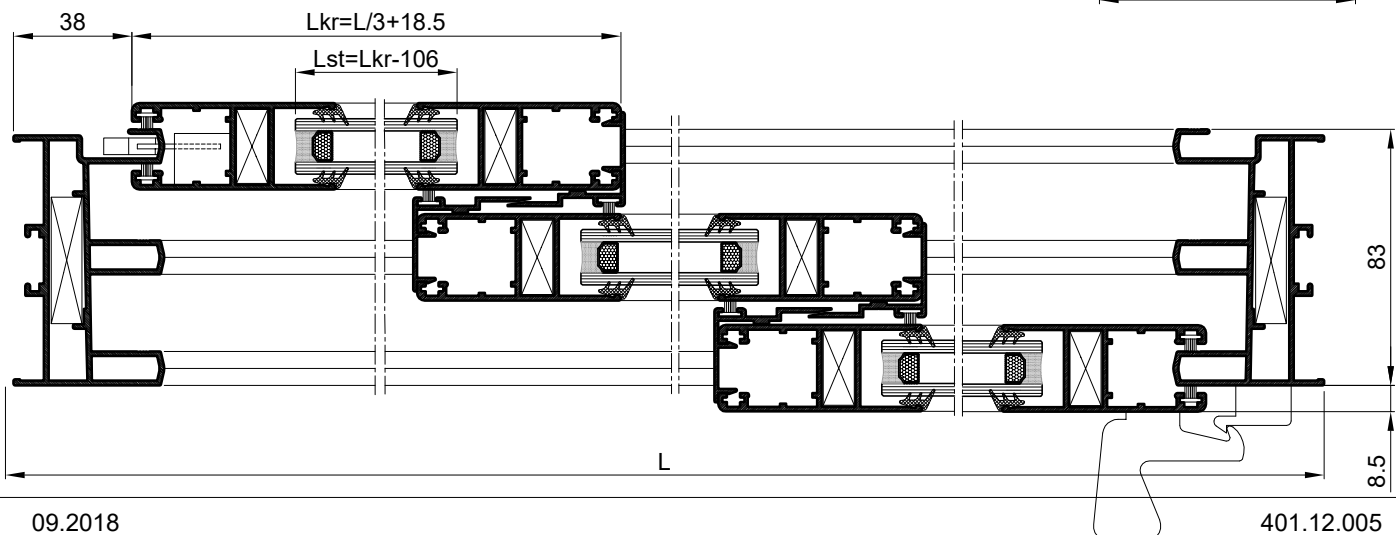
730.013	kutnik okvira corner bracket frame	4	
730.014	kutnik krila corner bracket sash	12	
143.008	kotačići komplet za tri krila bogies-set for three sash		
140.003	3087 bravica-jezičak s prihvatnikom 1 3087 espag.-latchbolt with acceptor	1	
140.003	GS 3000 bravica-pogonski dio 1 GS 3000 espag-driving part	1	
105.001	ručka za pogon i zatvarač handle for driving and closer	1	
340.010	komplet-brtvilo i maska set-gasket and mask	2+8	
373.003	maska za drenažni otvor mask for drainage hole	3	
375.069	odstojnik spacer	4	
373.065	umetak za H-636 insert for H-636	par	

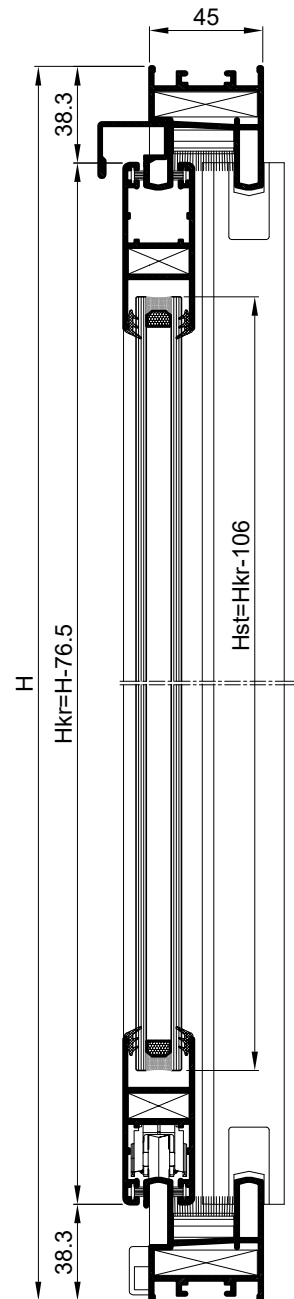
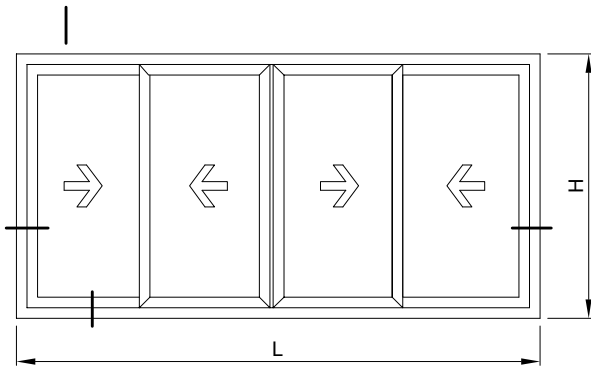
BRTVE GASKET

311.001	brtva prema staklu gasket to the glass		4L+12H
Četkasta brtva 7x5.5 347.004 brush gasket 7x5.5 347.004			4L+8H

STAKLO GLASS

218 mm	3	Lkr-106 x Hkr-106
--------	---	-------------------





PROFILI PROFILES		kom pcs	mjera measure	pilanje cutting
H-631	vodoravnica okvira frame horizontal profile	2	L	45-45
H-631	okomica okvira frame vertical profile	2	H	45-45
H-630	vodoravnica krila sash horizontal profile	8	L/4+13	45-45
H-630	okomica krila sash vertical profile	8	H-76.5	45-45
H-634	završni profil finish profile	4	H-76.5	90-90
H-637	vezni profil connection profile	1	H-100	90-90
H-636	okapnica drip cap profile	1	L-52	90-90

OKOVI HARDWARE

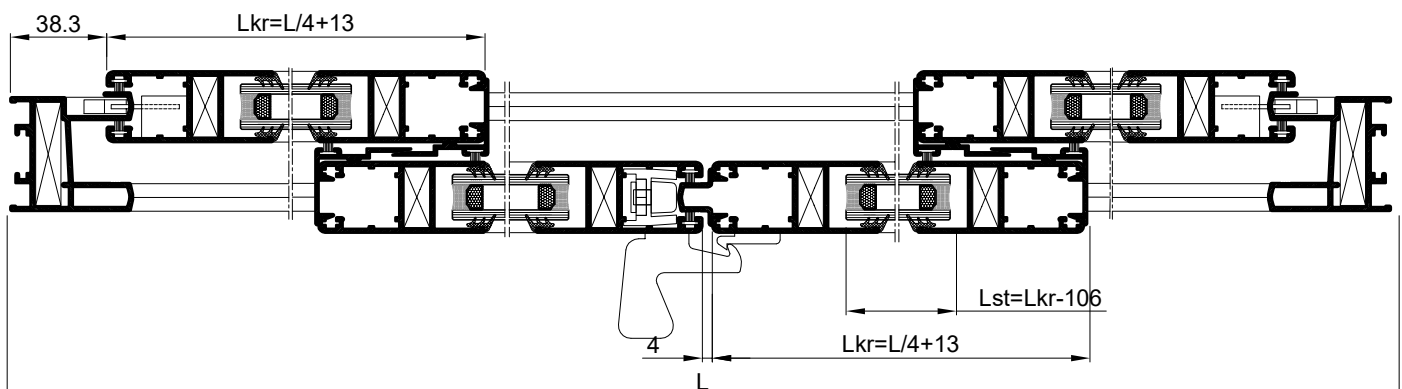
730.013	kutnik okvira corner bracket fame	4		
730.014	kutnik krila corner bracket sash	16		
143.008	kotačići-komplet za četiri krila bogies- set for four sash			
140.003	3087 bravica-jezičak s prihvatnikom 3087 espag.-latchbolt with acceptor	2		
140.003	GS 3000 bravica-pogonski dio GS 3000 espag-driving part	2		
105.001	ručka za pogon i zatvarač handle for driving and closer	1		
340.010	komplet-brtvilo i maska set for gaskets and mask	2+8		
373.003	maska za drenažni otvor mask for drainage hole	3		
375.069	odstojnik spacer	6		
373.065	umetak za H-636 insert for H-636	par pair		

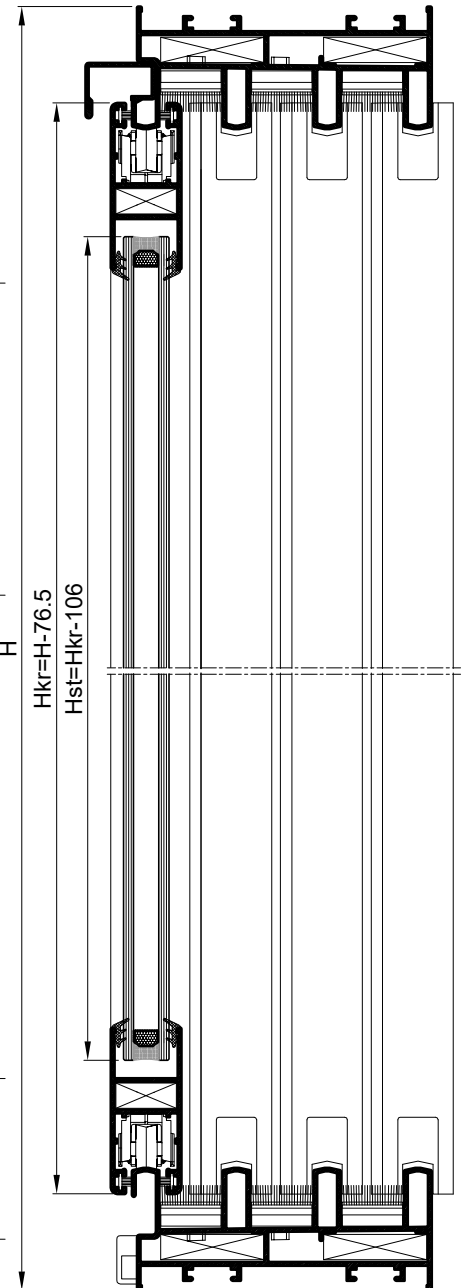
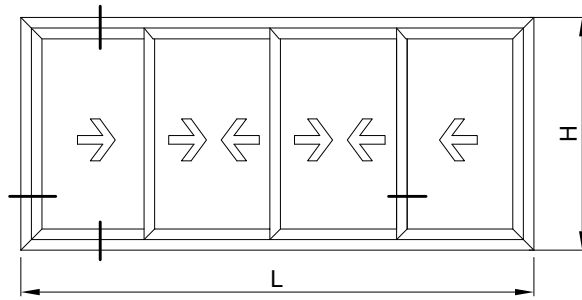
BRTVE GASKET

311.001	brtva prema staklu gasket to the glass		4L+16H	
Četkasta brtva 7x5.5 347.004 brush gasket 7x5.5 347.004			4L+10H	

STAKLO GLASS

18 mm		4	Lkr-106 x Hkr-106	
-------	--	---	-------------------	--





PROFILI PROFILI		kom pcs	mjera measure	pilanje cutting
H-643	vodoravnica okvira frame horizontal profile	2	L	45-45
H-643	okomica okvira frame vertical profile	2	H	45-45
H-630	vodoravnica krila sash horizontal profile	8	$L/4+30$	45-45
H-630	okomica krila sash vertičač profile	8	H-76.5	45-45
H-634	završni profil finish profile	6	H-76.5	90-90
H-636	okapnica drip cap profile	1	L-41	90-90

OKOVI HARDWARE

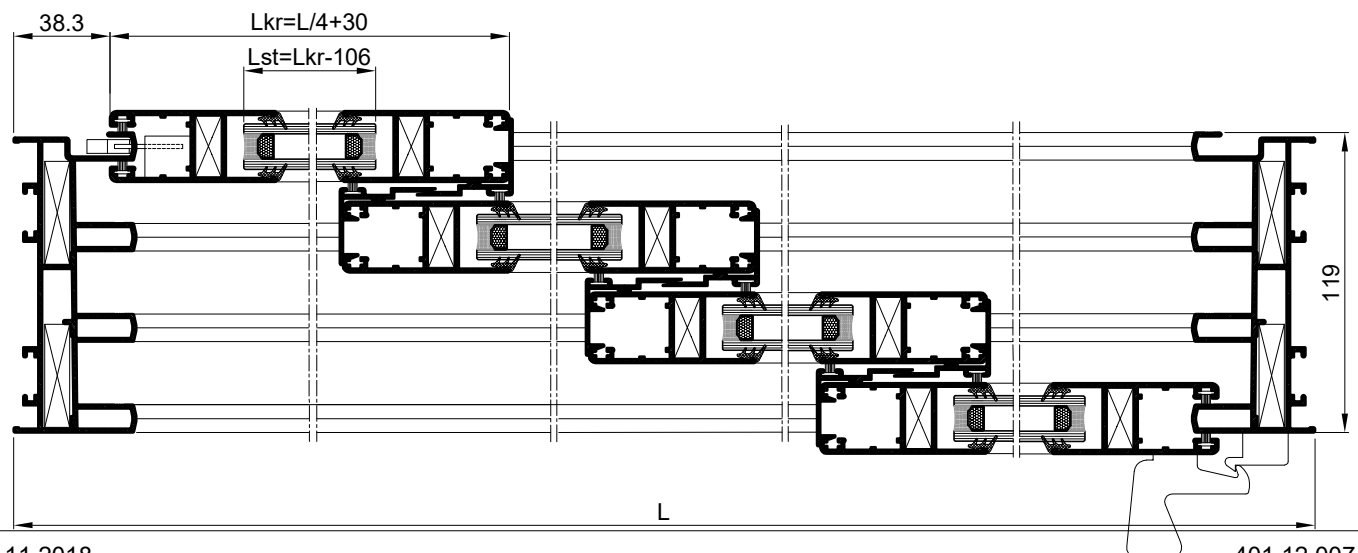
730.013	kutnik okvira corner bracket frame	8		
730.014	kutnik krila corner bracket sash	16		
143.008	kotačići-komplet za četiri krila bogies-set for four sash			
140.003	3087 bravica-jezičak s prihvatnikom 3087 bogies- latchbolt with acceptor	1		
140.003	GS 3000 bravica-pogonski dio GS 3000 espag.-driving part	1		
105.001	ručka za pogon i zatvarač handle for driving and closer	1		
340.010	komplet-brtvilo i maska set-gasket and mask	3+12		
373.003	maska za drenažni otvor mask for drainage hole	3		
375.069	odstojnik spacer	4		
373.065	umetak za H-636 insert for H-636	par	par	

BRTVE GASKET

311.001	brtva prema staklu gasket to the glass		$4L+16H$	
Četkasta brtva 7x5.5	347.004		$4L+10H$	
brush gasket 7x5.5	347.004			

STAKLO GLASS

18 mm	4	$Lkr-106 \times Hkr-106$
-------	---	--------------------------



FEAL

HARMO

Srpanj 2020. / July 2020

FEAL d.o.o.
Trnska cesta 146
88220 Široki Brijeg
Bosna i Hercegovina
Tel. +387 39 704-269; 705-807; 705-636
Fax. +387 39 704-358
info@feal.ba
www.feal.ba