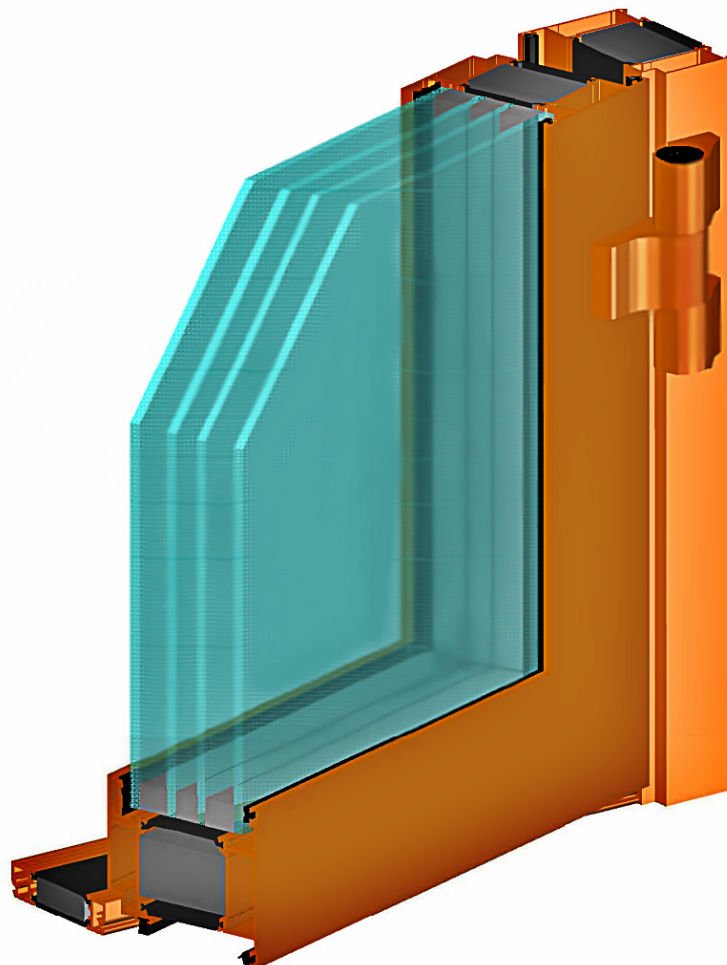


NOKIAN **PROFILES**

N98Si

WORKSHOP MANUAL



CROSS SECTION VALUES

I_x [cm ⁴]	N98si-122	N98si-123	N98si-128	N98si-131	N98si-132	N98si-133
Length of profile						
1.0 m	24,3	23,0	21,9	21,1	22,2	19,4
1.5 m	39,3	37,2	34,9	34,1	35,4	30,3
2.0 m	52,4	49,2	45,8	44,9	46,1	38,7
2.5 m	62,6	58,5	54,0	52,9	54,1	44,8
3.0 m	70,2	65,4	60,0	58,7	59,8	49,0
3.5 m	75,9	70,4	64,4	63,0	64,0	52,0
4.0 m	80,1	74,2	67,6	66,1	67,1	54,2
4.5 m	83,3	77,0	70,0	68,5	69,3	55,8
5.0 m	85,8	79,2	71,9	70,2	71,1	57,0
5.5 m	87,7	80,9	73,3	71,6	72,4	57,9
6.0 m	89,3	82,2	74,4	72,7	73,5	58,7
6.6 m	90,7	83,5	75,5	73,7	74,5	59,4
W_x [cm ³]	23,1	19,9	16,5	13,4	13,9	12,8
I_y [cm ⁴]	22,6	16,5	12,3	6,4	10,2	3,9
W_y [cm ³]	5,3	4,3	5,5	2,1	2,9	2,6

I_x [cm ⁴]	N98si-143	N98si-144	N98si-147	N98si-148
Length of profile				
1.0 m	103,2	105,5	117,3	119,1
1.5 m	136,1	141,1	153,0	157,0
2.0 m	166,2	174,5	187,2	194,1
2.5 m	190,6	202,4	216,1	226,1
3.0 m	209,5	224,4	239,3	252,2
3.5 m	223,9	241,5	257,3	272,8
4.0 m	234,9	254,7	271,4	289,1
4.5 m	243,3	264,9	282,3	301,9
5.0 m	249,8	272,9	291,0	312,0
5.5 m	255,0	279,3	297,8	320,1
6.0 m	259,1	284,4	303,4	326,7
6.6 m	263,1	289,2	308,7	333,0
W_x [cm ³]	35,9	37,9	39,7	43,5
I_y [cm ⁴]	12,9	16,5	31,9	37,8
W_y [cm ³]	3,9	4,7	7,9	8,9

MATERIAL CHARACTERISTICS

Aluminium profiles

AW-6060 T6

Breaking strength f_u (Rm)	190 N/mm ²
Yield strength f_y (Rp 0,2)	150 N/mm ²
Elasticity modulus E	70 000 N/mm ²
Sliding factory G	27 000 N/mm ²
Density	2700 kg/m ³
Thermal expansion coefficient	23 · 10 ⁻⁶ /°C
Thermal conductivity	209 W/m°C

Gaskets

EPDM/cellular-EPDM

Hardness	80±5 °Sh
Tensile strength	10 N/mm ²
Breaking strain	150 % min
Compression (22h/70 C)	25 % (max)

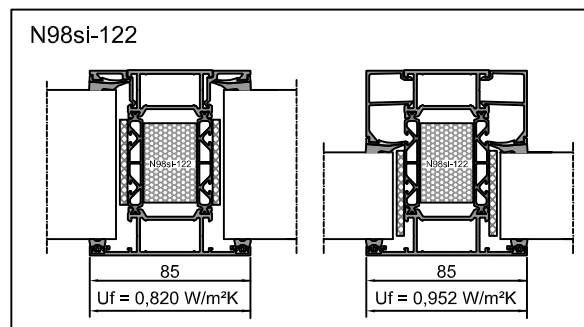
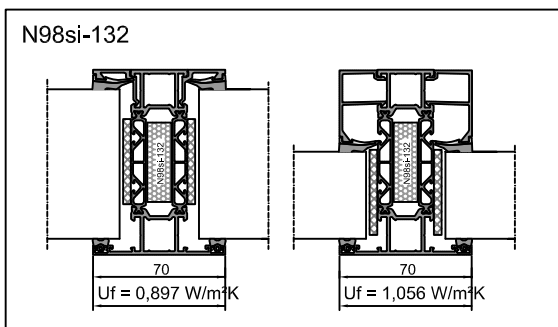
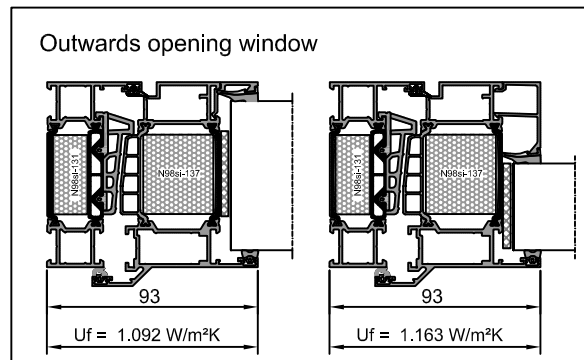
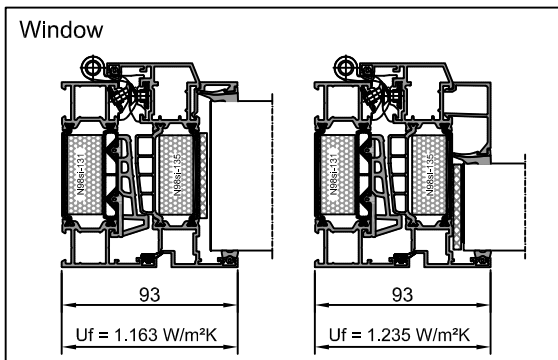
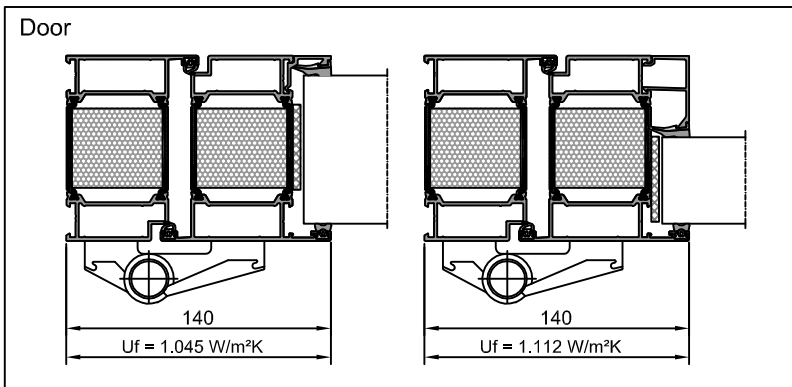
Thermal breaks

PA 6.6, Polyurethane

Screws

Delta coating	DT-DS 600 (DIN 50021)
or	
Stainless steel	A2

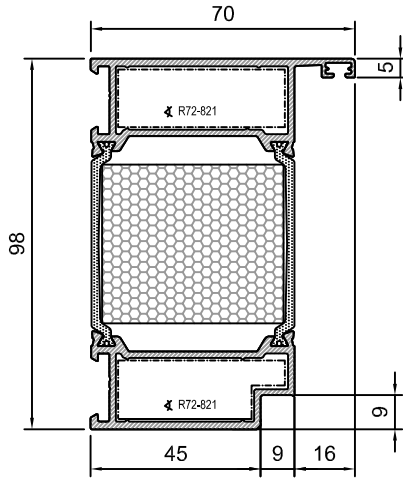
U-values



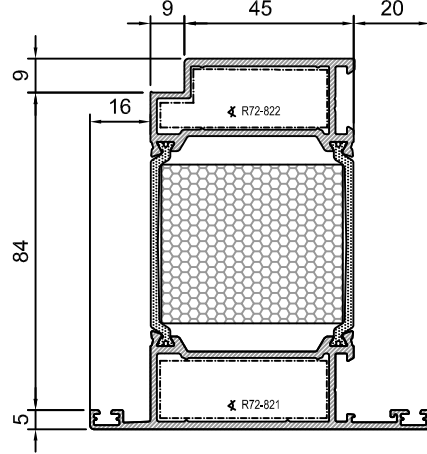
Other combinations are available with a request

01.04.2016

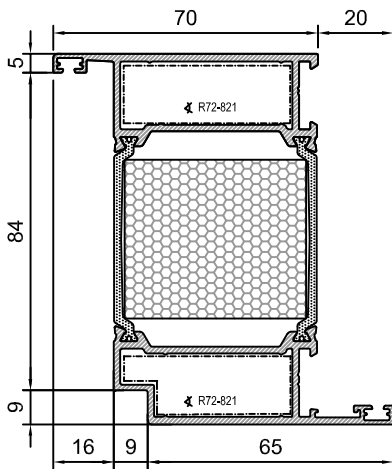
N98-121



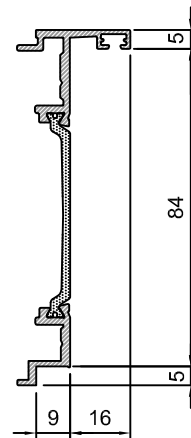
N98-124



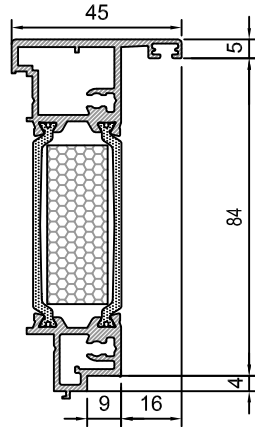
N98-125



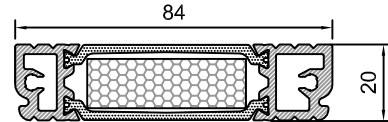
N98-201



N98-202



N98-203



R72-505



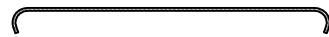
Brush seal profile

R72-510



Slide window sub-profile

N98si-503



Stainless sill surface

R72-523



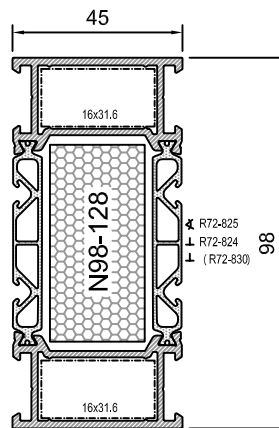
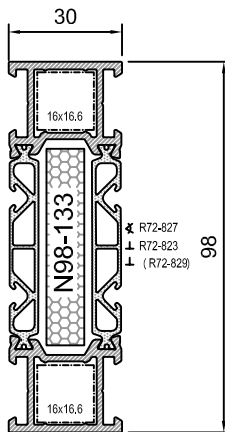
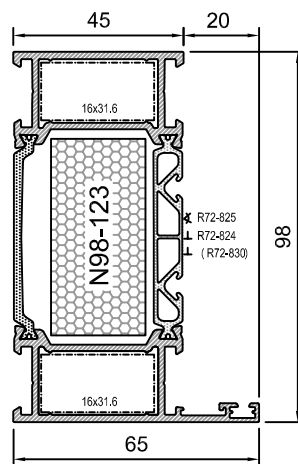
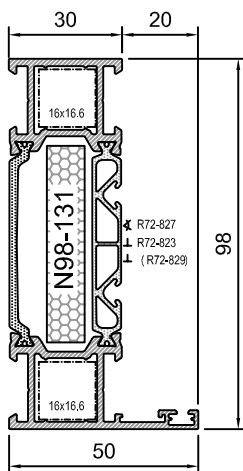
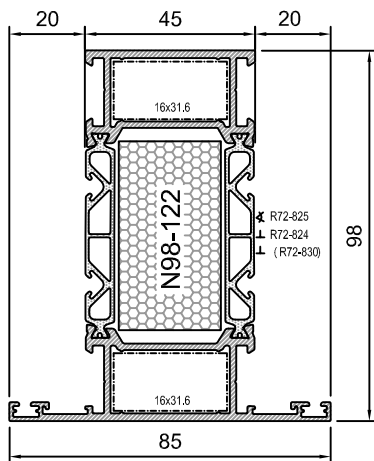
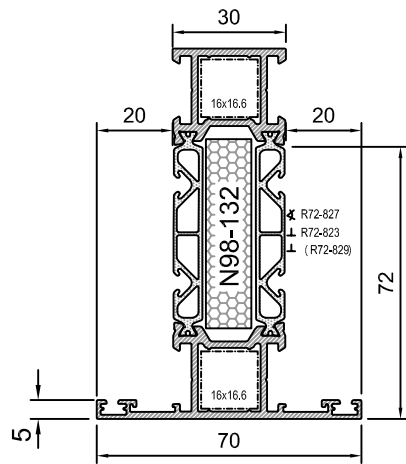
External steel mounting

R72-524



Drip





Other combinations are available with a request

01.04.2016

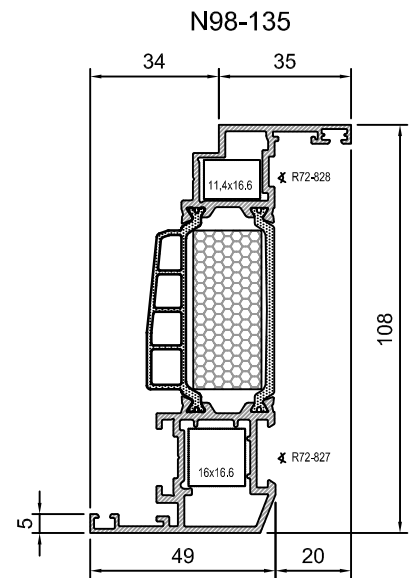
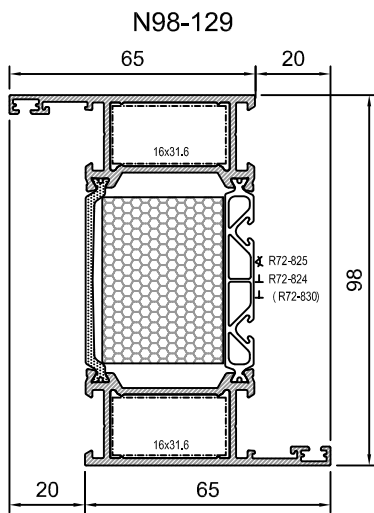
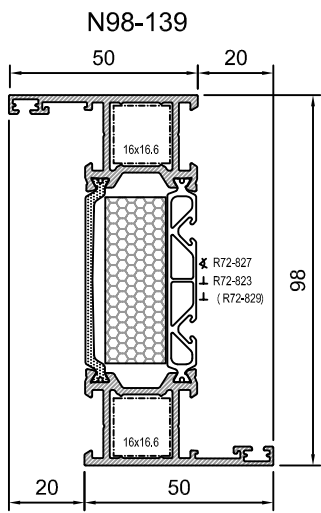
1.3

NOKIAN
PROFILES

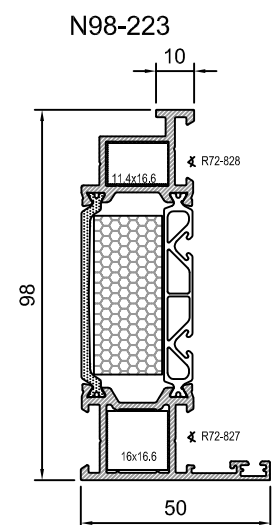
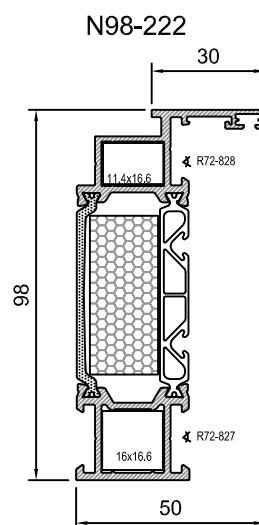
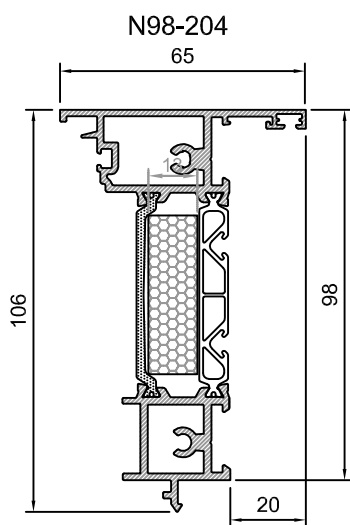
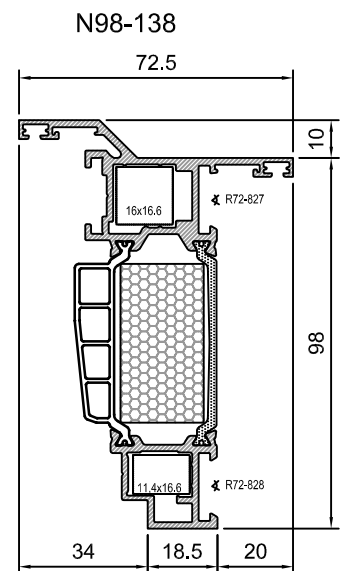
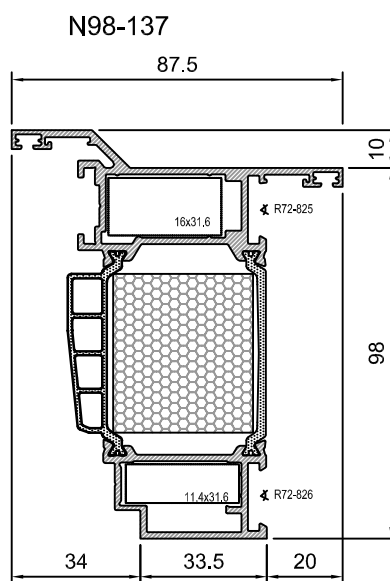
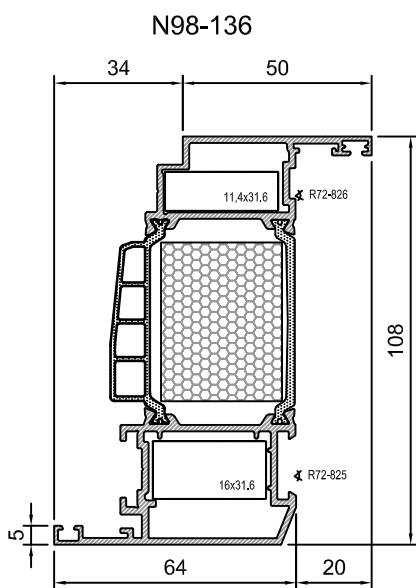


N98_{SI}

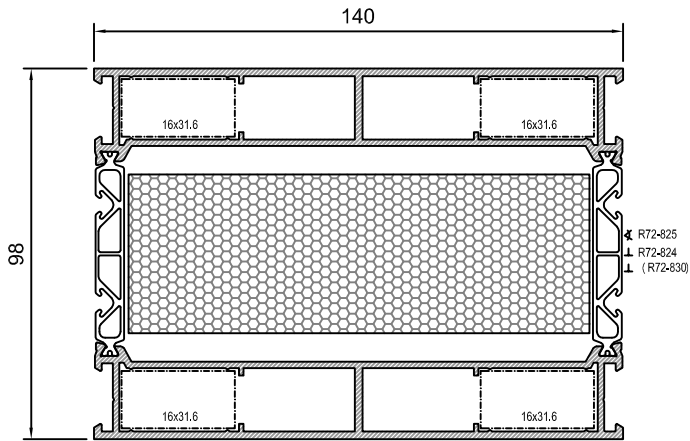
Profiles 1:2



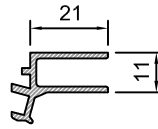
Other combinations are available with a request



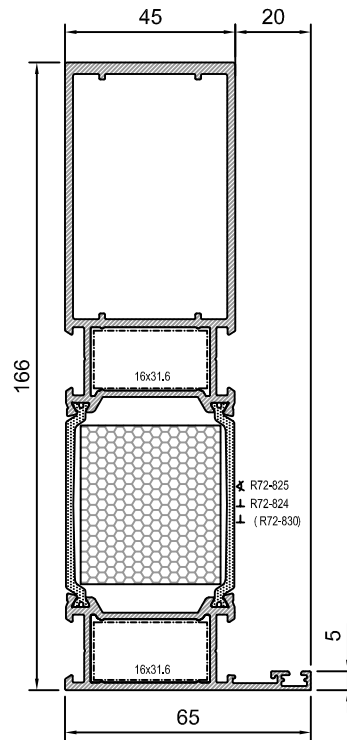
N98-140



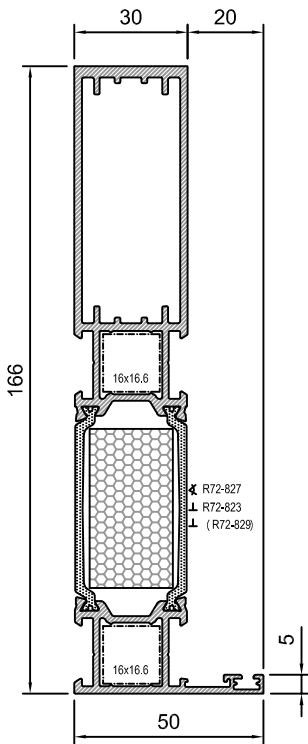
R72-509



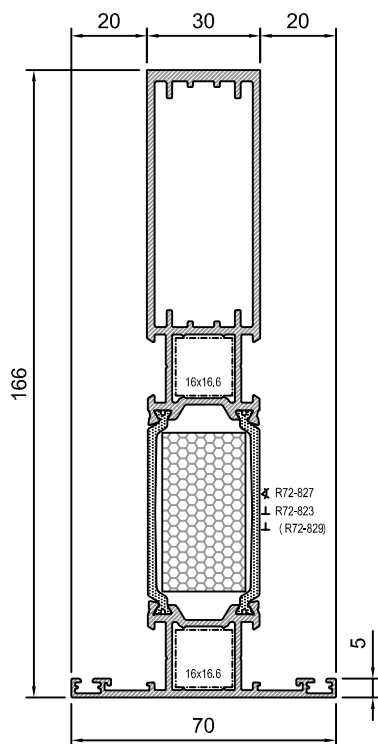
N98si-147



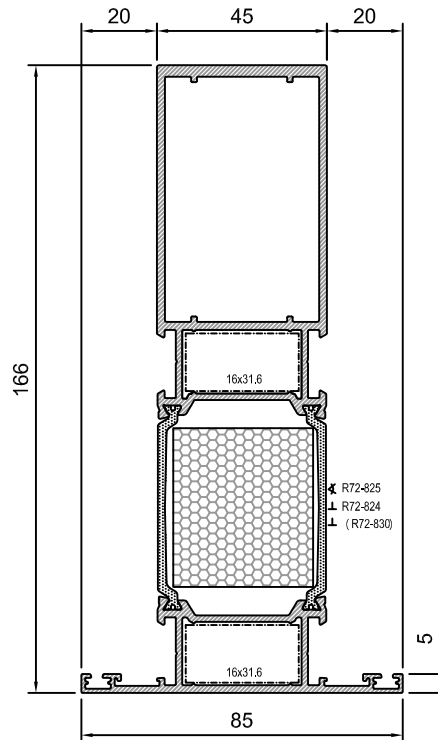
N98si-143

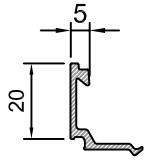


N98si-144

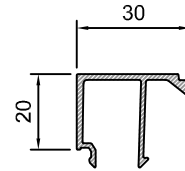


N98si-148

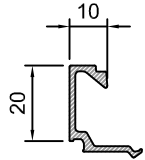




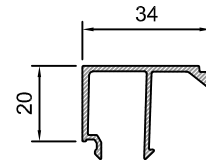
R72-320



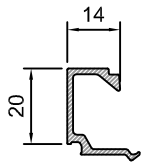
R72-326



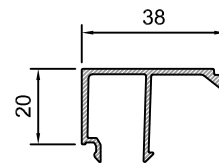
R72-321



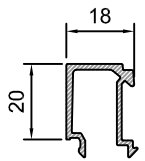
R72-327



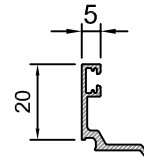
R72-322



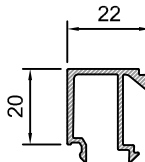
R72-328



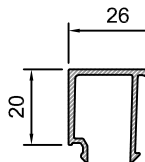
R72-323



R72-329



R72-324



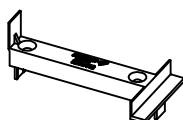
R72-325



Double door cap-piece

N98si-124/125

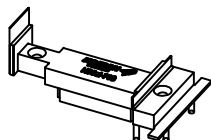
R72-701



Double door cap-piece

N98si-202

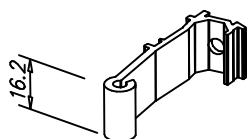
N98si-702



Double door cap-piece

N98si-204

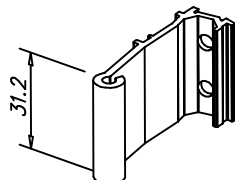
N98si-703



T-connection piece

N98si-131 (f,w,fw-versions)
N98si-132 (f,w,fw-versions)
N98si-133 (f,w,fw-versions)
N98si-139 (f,w,fw-versions)

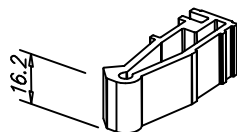
R72-823



Big T-connection piece

N98si-122 (f,w,fw-versions)
N98si-123 (f,w,fw-versions)
N98si-128 (f,w,fw-versions)
N98si-129 (f,w,fw-versions)

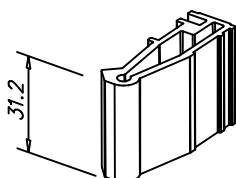
R72-824



T-connection piece II

N98si-131 (f,w,fw-versions)
N98si-132 (f,w,fw-versions)
N98si-133 (f,w,fw-versions)
N98si-139 (f,w,fw-versions)

R72-829



Big T-connection piece II

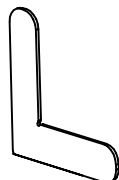
N98si-122 (f,w,fw-versions)
N98si-123 (f,w,fw-versions)
N98si-128 (f,w,fw-versions)
N98si-129 (f,w,fw-versions)

R72-830



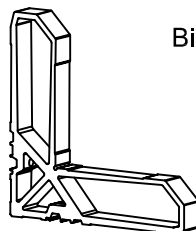
Small corner plate

R72-801



Big corner plate

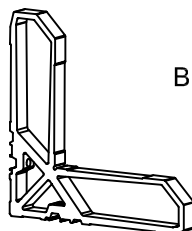
R72-802



Big corner piece 15,6 mm

N98si-122 (f,w,fw-versions)
N98si-123 (f,w,fw-versions)
N98si-128 (f,w,fw-versions)
N98si-129 (f,w,fw-versions)
N98si-136
N98si-137

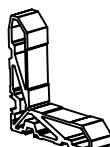
R72-825



Big corner piece 11 mm

N98si-136
N98si-137

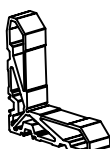
R72-826



Small corner piece 15,6 mm

N98si-131 (f,w,fw-versions)
N98si-132 (f,w,fw-versions)
N98si-133 (f,w,fw-versions)
N98si-135
N98si-138
N98si-139 (f,w,fw-versions)

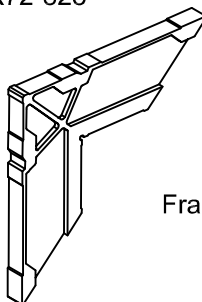
R72-827



Small corner piece 11 mm

N98si-135
N98si-138

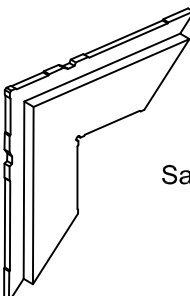
R72-828



Frame & sash corner element

N98si-121
N98si-125

R72-821



Sash corner element

N98si-121
N98si-124

R72-822



Ventilation plug

R72-708



Glass support element L=200 mm

R72-710



N98si-681L

Frame corner gasket (N98si-681)



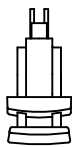
Edge bolt lead-through

R72-725



Lock counterplate

N98si-726

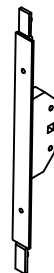


R72-727
Lever bolt



R72-728
Edge bolt

N98si-746
Lock accessory kit
-lock cylinder packers
-long arm

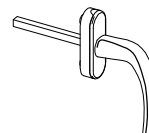


R72-729
Outwards opening window
mechanism



R72-401

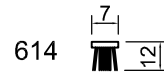
Slider



R72-730

Outwards opening window handle

Gaskets



614

Brush seal



651

Rabbit seal



652

Glazing gasket



653

Glazing gasket

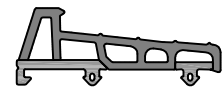


656

Retrofit gasket

Central gasket of frame / Центральная гasket of frame

N98si-681



N98si-683



Threshold gasket

657



Rabbit seal

638



Double-window gasket

661



Brush seal

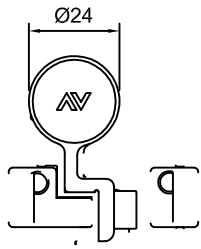
680



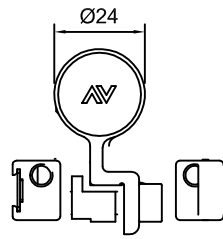
Glass space gasket



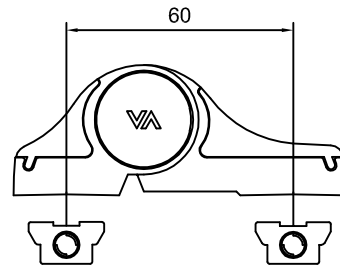
Door hinges



R72-722



R72-723
Frame with profile N98si-201



R72-724

Window fittings

Side-hanged	W (850-1700)	H (400-2400)
R72-901	850-1200	400-1400
R72-902	1201-1400	1401-2400
R72-903	1401-1700	1401-2400

Side/bottom hinged	W (850-1700)	H (850-2400)
R72-905	850-1200	850-1400
R72-906	1201-1700	1401-2400

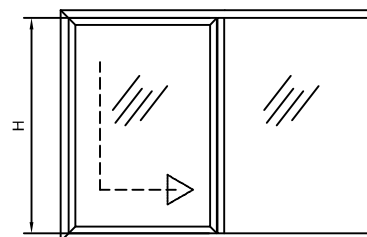
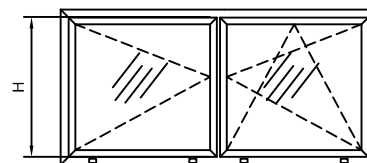
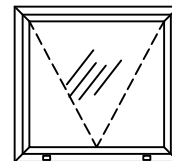
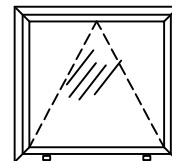
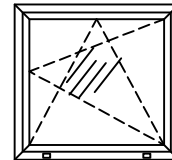
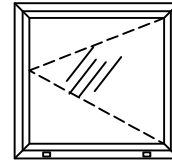
Bottom hinged	W (450-1500)	H (850-1000)
R72-907	450-900	850-1000
R72-908	901-1500	850-1000

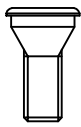
Top hinged	W (650-1000)	H (850-1400)
R72-910	650-1000	500-1400
R72-911	1000-1400	500-1400

Pair window	W (850-1200)	H (850-1400)
R72-913	850-1200	850-1400

Sliding window	W (900-1650)	H (1401-2400)
On special request		

External dimensions of sash





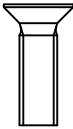
Special screw
Mitre joints

R72-720



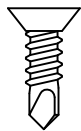
Special rivet nut M5
Fastening of the locks
Fastening of the counterplates
Fastening of the lead covers
Fastening of the door closers

R72-721



M5x16

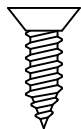
Fastening of the locks
Fastening of the counterplates
Fastening of the lead covers
Fastening of the door closers



T-joint

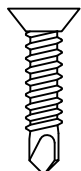
Ø4,8x16P

Counterplate of the mechanical lock



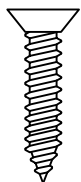
T-joint

Ø4,8x16



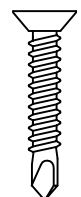
N98si-204 fastening

Ø4,8x22P



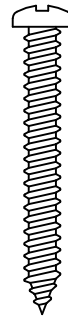
N98si-702 fastening
N98si-703 fastening

Ø4,8x22



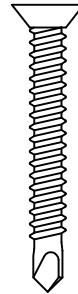
R72-701 fastening
N98si-201 fastening

Ø4,2x25P



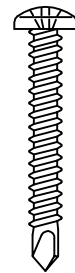
N98si-203 threshold connection

Ø4,8x38



N98si-202 fastening

Ø4,8x38P



Screw T-joint

Ø4,2x32P



Rivet of the door closer's
counterplate

Ø4,0x12 niitti



R72-505 brush seal
fastening

Fastening of the lock
base plate

Ø4,2x13P

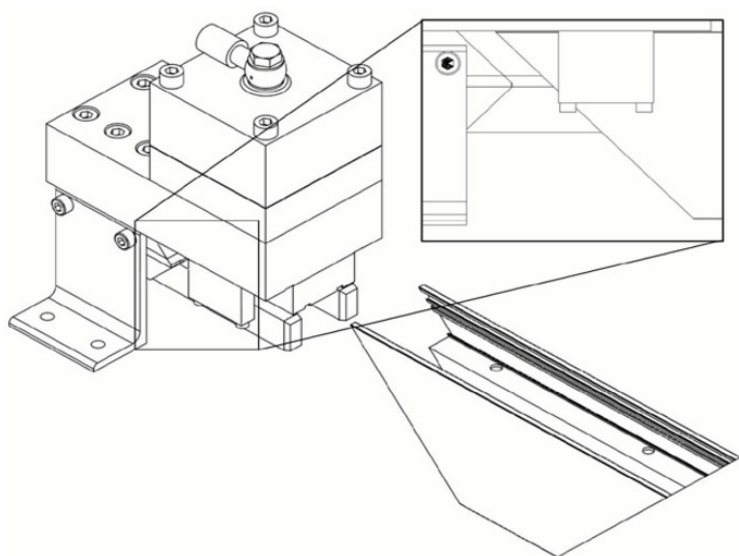
SURFACE TREATMENT

A2---AISI 304

DT-DS600---DIN 50021



Multifunction press for N98si system



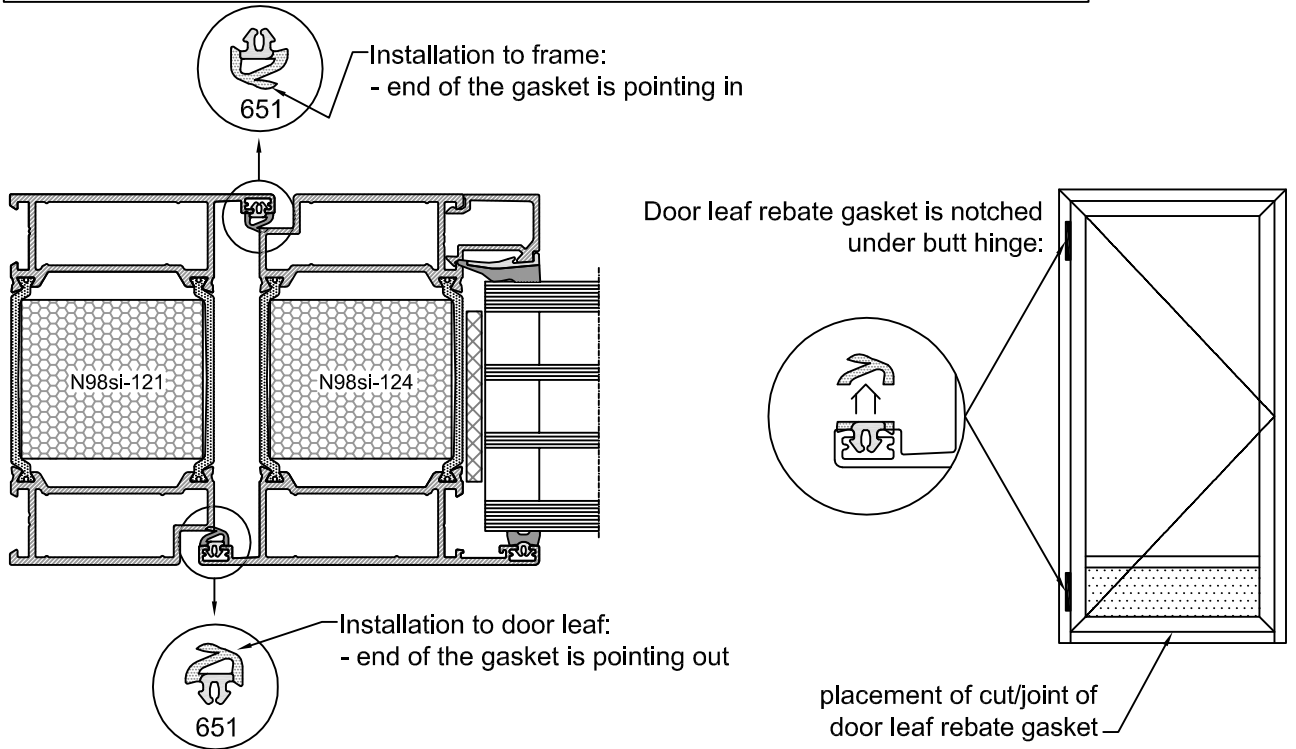
Drilling jigs N98si

There are all drilling jigs available for all kinds of standard machinings.

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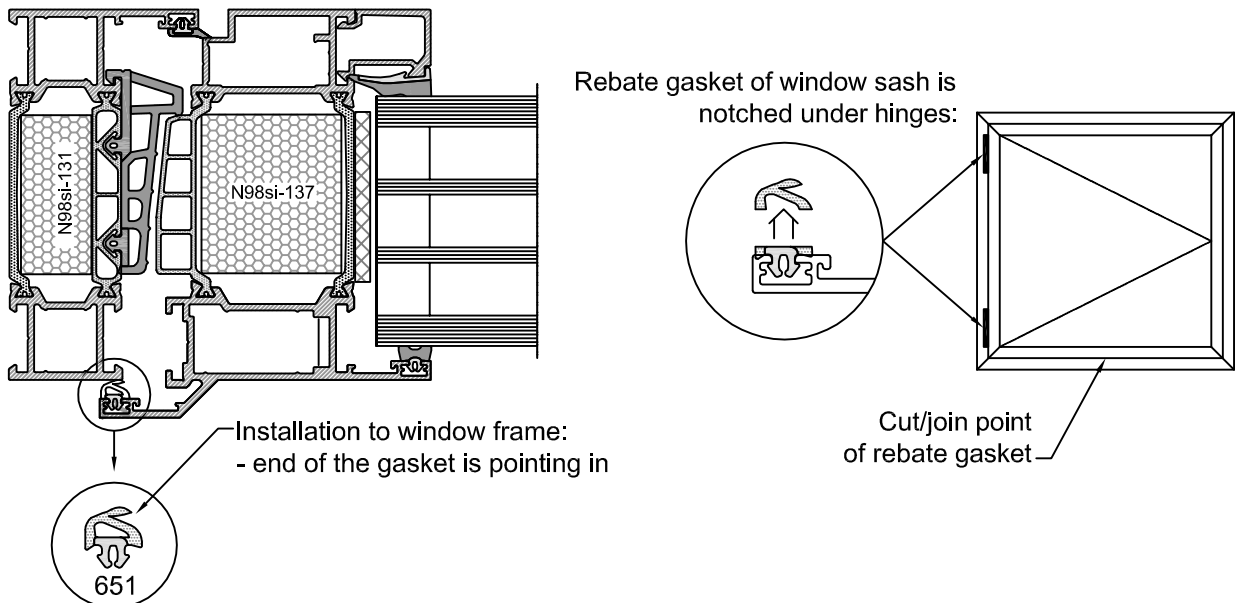
DOORS:

- rebate gasket 651 is installed both frame and sash
- do not cut the gasket in the corners
- in door sash the joint of the seal is positioned at the middle of lower rebate of the door. gasket is joined together with EPDM glue
- using butt-hinge the gasket is notched under hinge

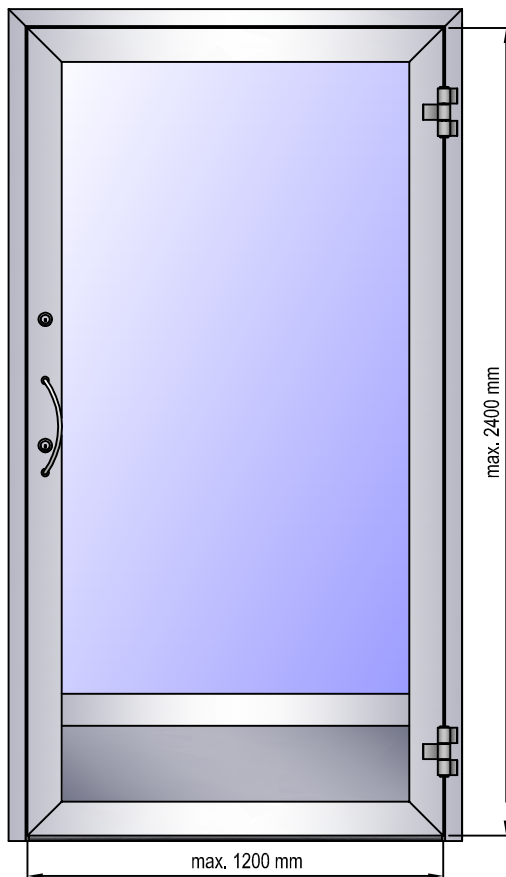


WINDOWS:

- rebate gasket 651 is installed only to sash profile.
- do not cut the gasket in the corners
- Cut/joint is located in the middle of lower frame rebate. gasket is joined with EPDM glue
- rebate gasket is notched under hinges.

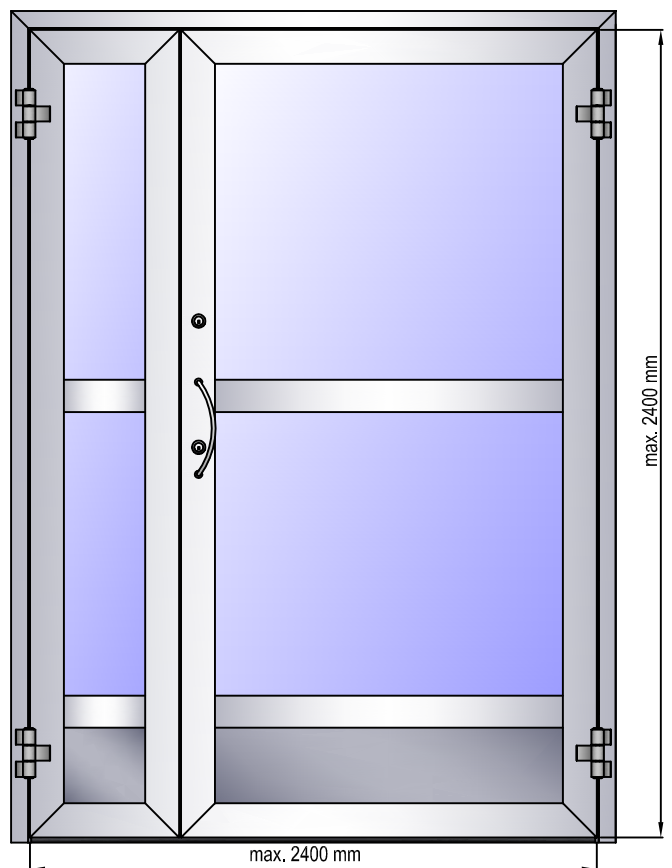


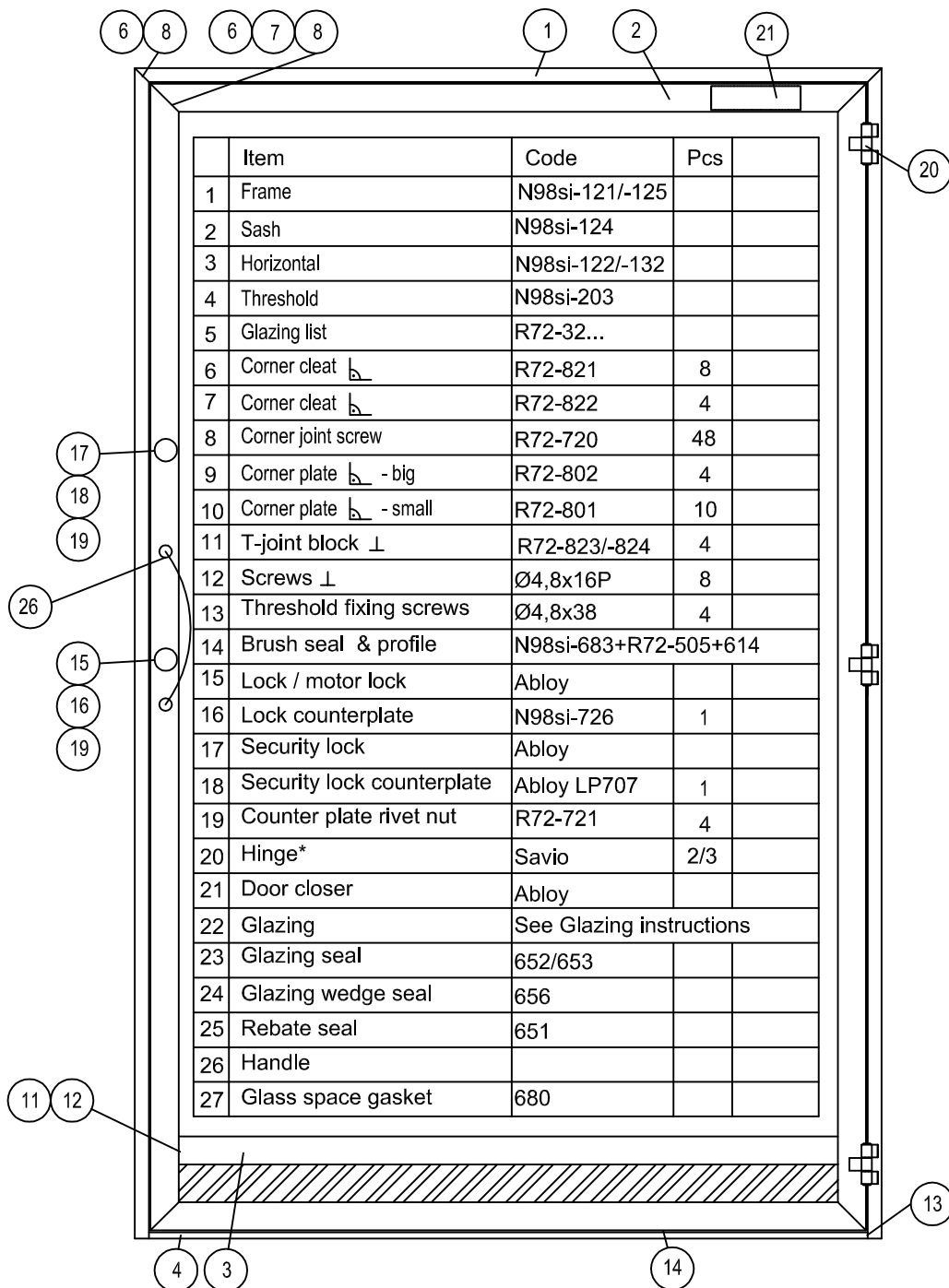
2. Doors









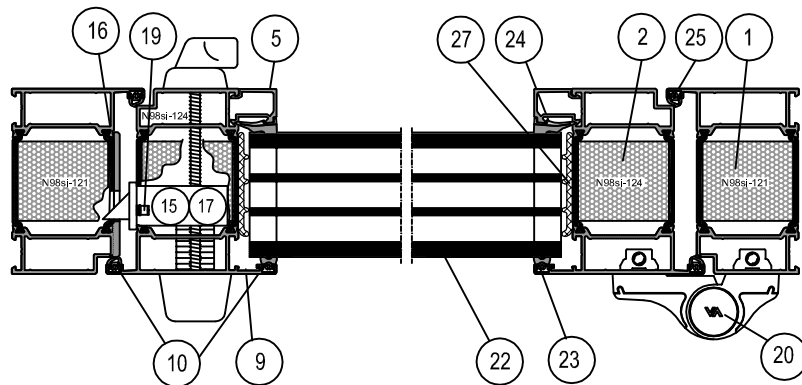
Sash max. weight: 120 kg

N98s1

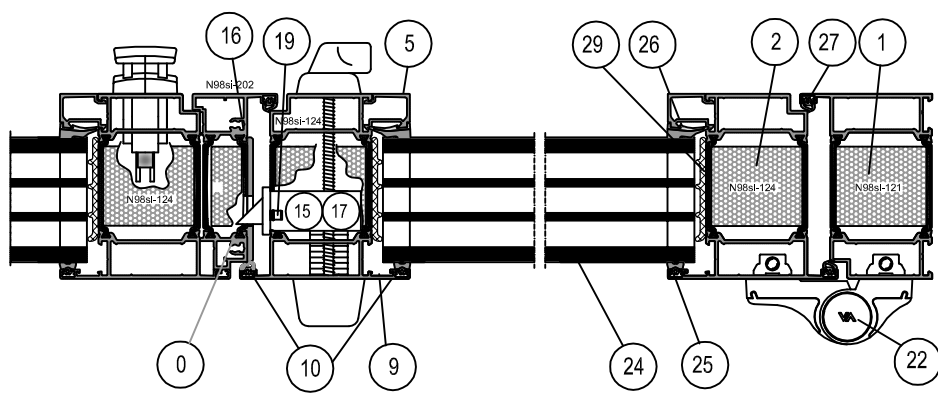
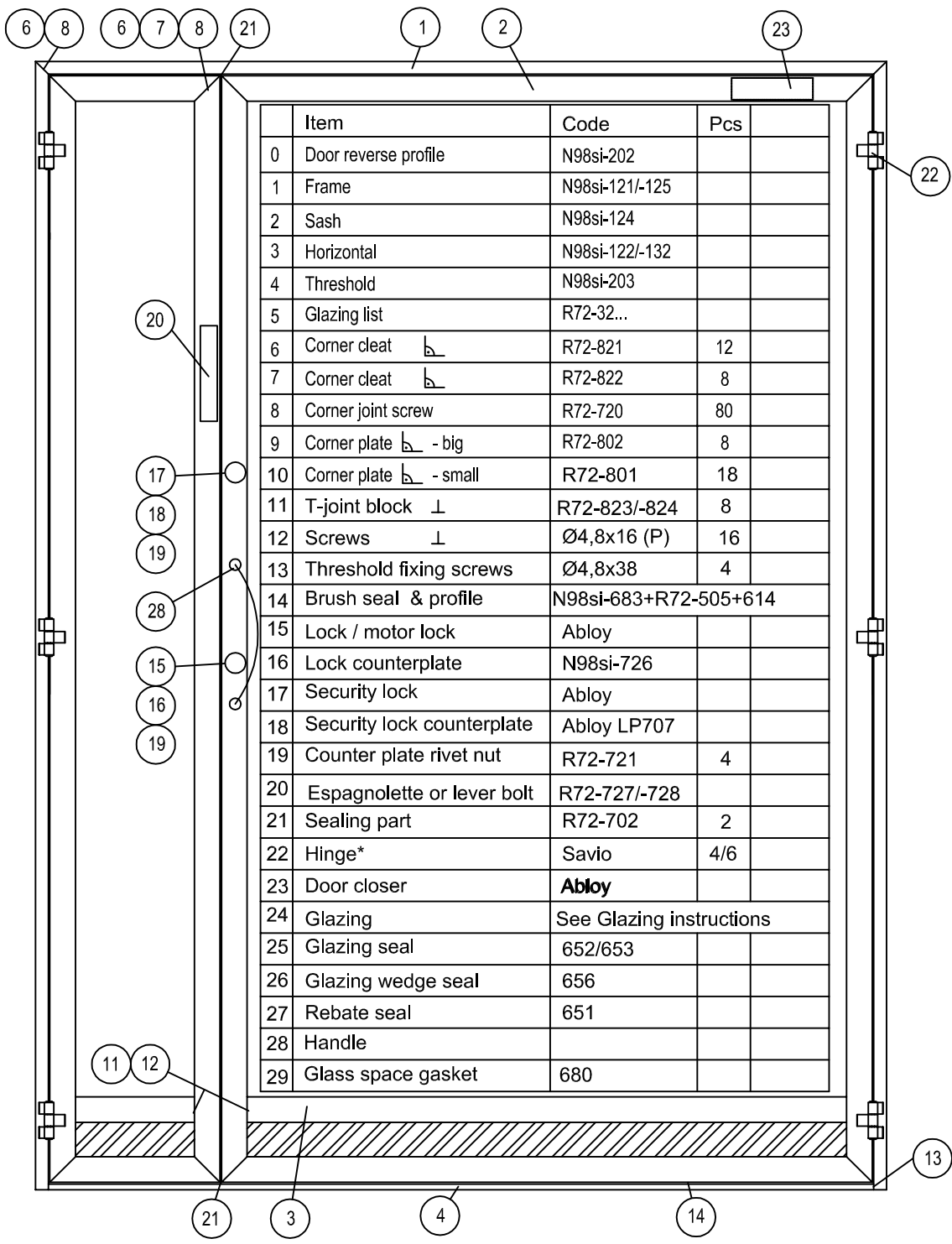




	Item	Code	Pcs
1	Frame	N98si-121/-125	
2	Sash	N98si-124	
3	Horizontal	N98si-122/-132	
4	Threshold	N98si-203	
5	Glazing list	R72-32...	
6	Corner cleat 	R72-821	8
7	Corner cleat 	R72-822	4
8	Corner joint screw	R72-720	48
9	Corner plate  - big	R72-802	4
10	Corner plate  - small	R72-801	10
11	T-joint block 	R72-823/-824	4
12	Screws 	Ø4,8x16P	8
13	Threshold fixing screws	Ø4,8x38	4
14	Brush seal & profile	N98si-683+R72-505+614	
15	Lock / motor lock	Abloy	
16	Lock counterplate	N98si-726	1
17	Security lock	Abloy	
18	Security lock counterplate	Abloy LP707	1
19	Counter plate rivet nut	R72-721	4
20	Hinge*	Savio	2/3
21	Door closer	Abloy	
22	Glazing	See Glazing instructions	
23	Glazing seal	652/653	
24	Glazing wedge seal	656	
25	Rebate seal	651	
26	Handle		
27	Glass space gasket	680	

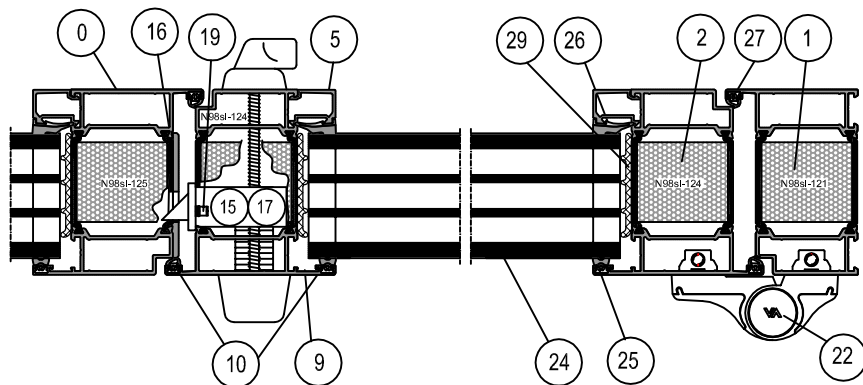
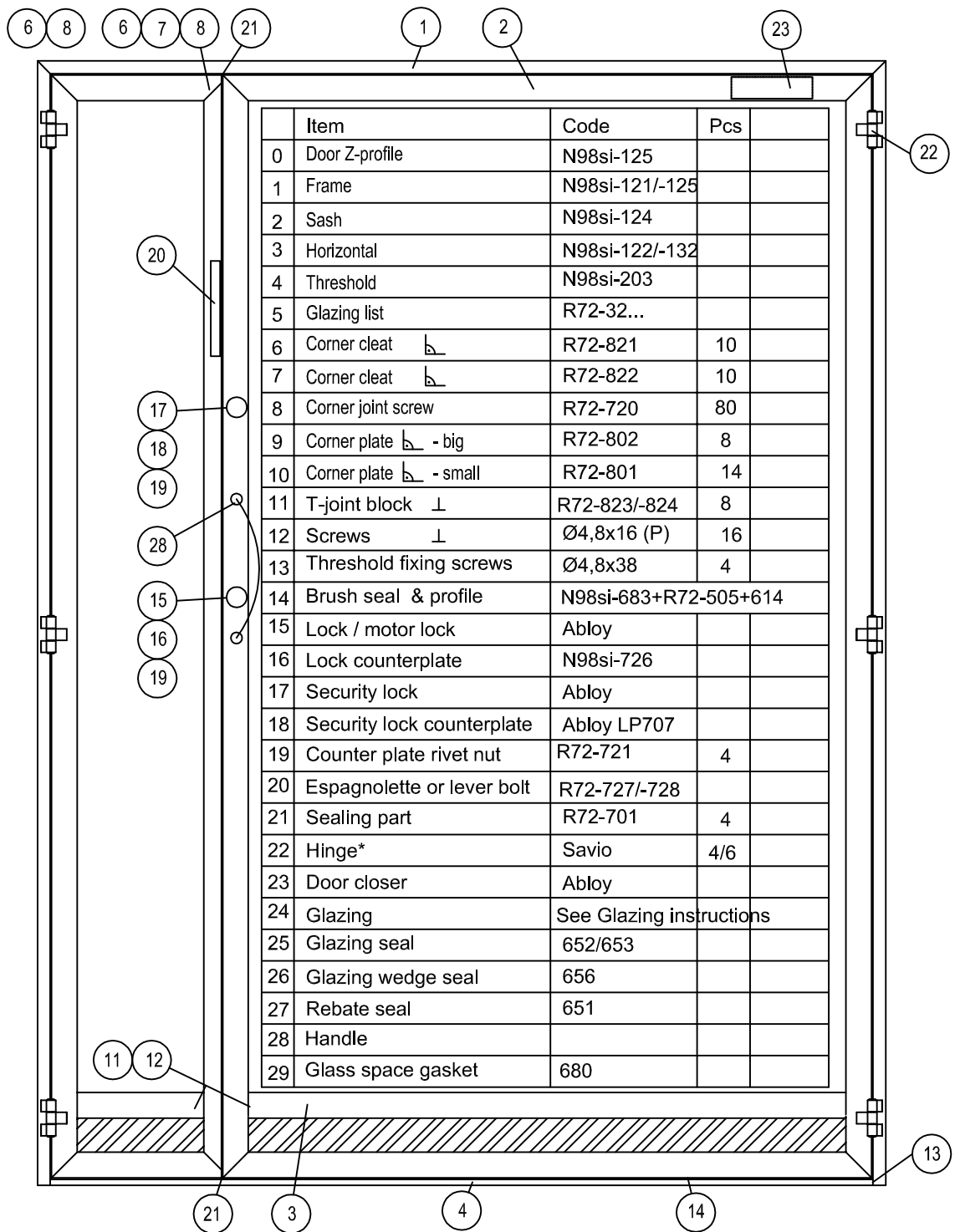


* Door height > 2.1m—3 hinges



* Door height > 2.1m—3 hinges

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* Door height > 2.1m—3 hinges

N98si

NOKIAN
PROFILES

01.04.2016

2.3

Parts list of pair door with profile N98si-125

1. GENERAL











- given instructions are applicable to tables 2.5 / 2.6 / 2.7 (outside openable doors) and 2.12 / 2.13 / 2.14 (inside openable doors)
- the table dimensions are nominal
- the structure is presented in a table which consists of horizontal and vertical sections, with a help of which the cutting measurements can be found

2. GLAZING

- glazing instructions are applicable to all of the structures
- see Glazing, page 6.0: installation of 656 gasket

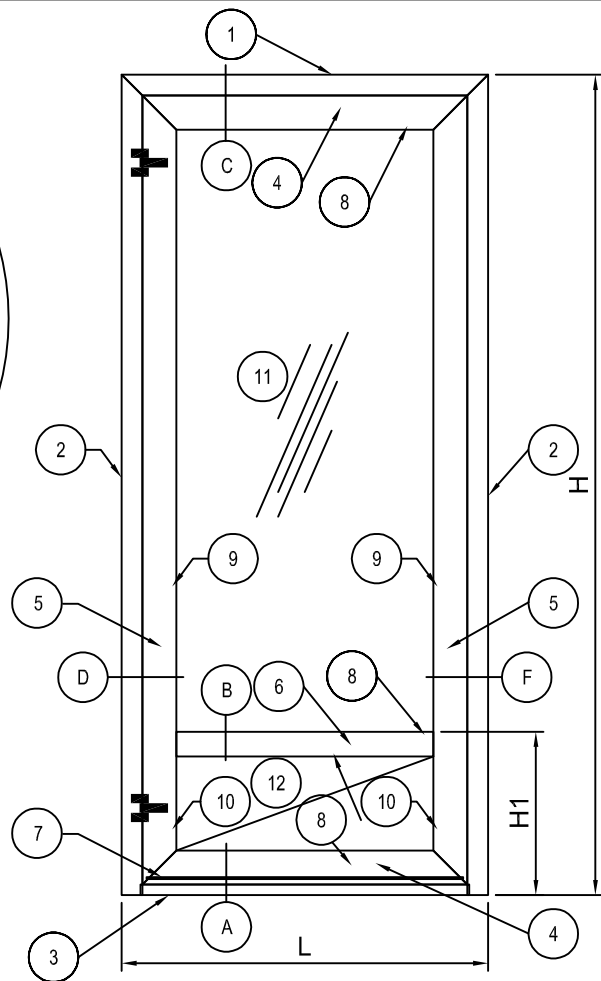
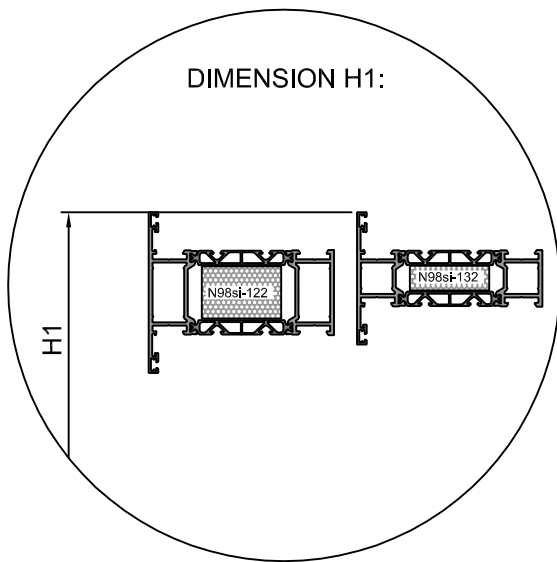
3. DOOR FRAME PROFILES' CORRESPONDENCES

















- door frame profiles' visible widths' correspondences are shown in a table below:

Structure:	Door frame profile:	Visible width:		
		50 mm	70 mm	90 mm
Outside openable door	N98si-121 	x		
	N98si-128 + N98si-201 	x		
	N98si-124 		x	
	N98si-125 		x	
	N98si-123 + N98si-201 		x	
Inside openable door	N98si-121 		x	
	N98si-128 + N98si-201 		x	
	R72-124 			x
	N98si-125 			x
	N98si-123 + N98si-201 			x

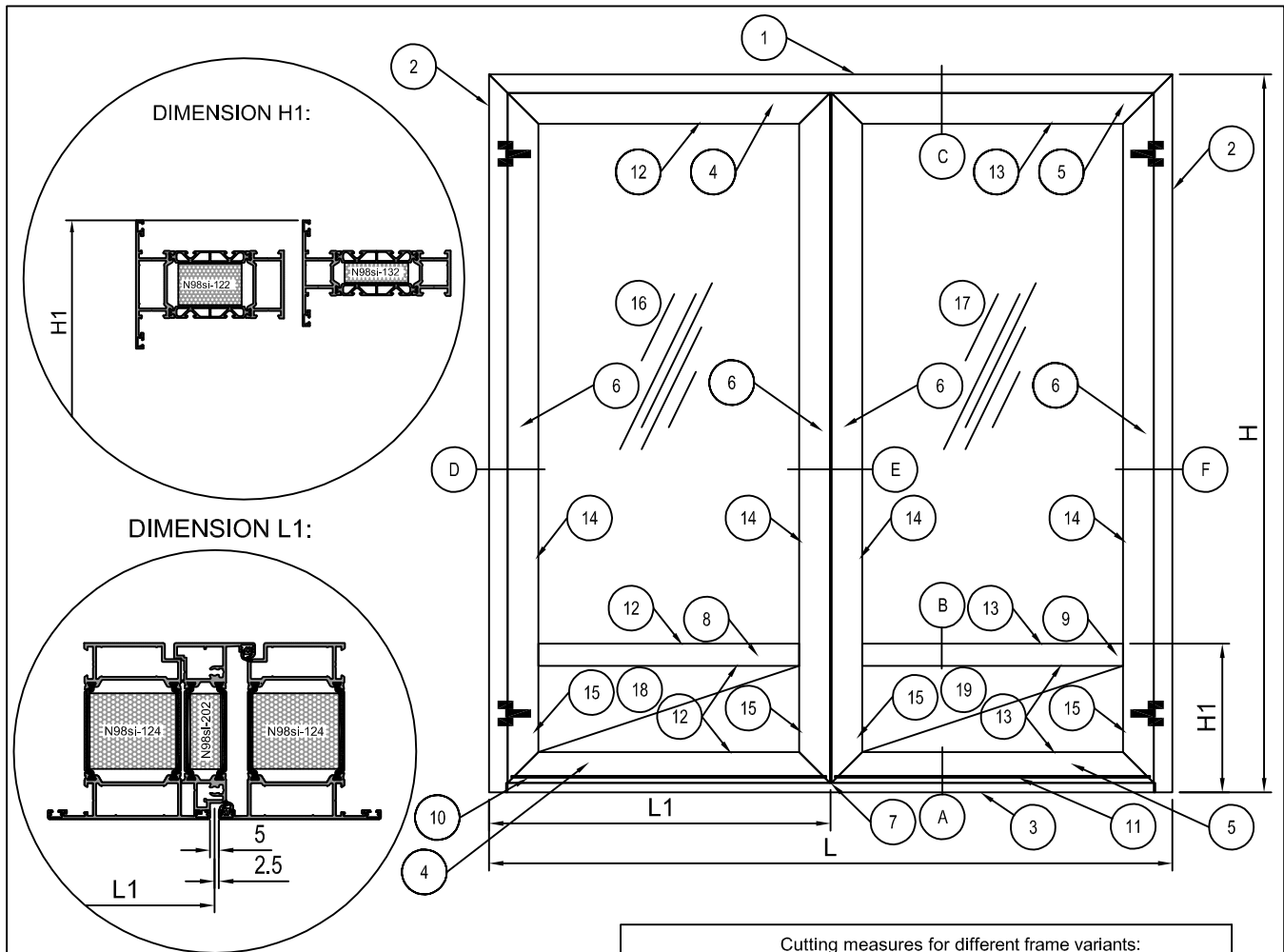
4. FRAME PROFILES N98si-123 + N98si-201

- cutting measures of the frame alternative N98si-123 + N98si-201 are shown on the cross-section drawings 2.8 & 2.11 (outside openable door) and 2.15 & 2.18 (inside openable door)
















		Cutting measures for different frame variants:					
No:	Part:	Profile/orientation:	N98si-121 	N98si-125 	N98si-128 	+ N98si-201 	Angles:
1	Horizontal frame		L	L	L	L-80	45° / 45°
2	Vertical frame		H	H	H	H-40	90° / 45°
3	Threshold	N98si-203 	L-108	L-148	L-108		90° / 90°
4	Horizontal sash	N98si-124 	L-100	L-140	L-100		45° / 45°
5	Vertical sash	N98si-124 	H-64	H-84	H-64		45° / 45°
6	Horizontal intermediate	N98si-122 	L-240	L-280	L-240		90° / 90°
		N98si-132 					
7	Threshold gasket	N98si-683 & R72-505 	L-132	L-172	L-132		90° / 90°
8	Horizontal glazinglists	-	L-240	L-280	L-240		90° / 90°
9	Vertical glazinglists, glass part	Horizontal intermediate 	H-H1-140	H-H1-160	H-H1-140		90° / 90°
		No horizontal intermediate 	H-244	H-264	H-244		
10	Vertical glazinglists, infill-panel part	Horizontal N98si-122f 	H1-189	H1-189	H1-189		90° / 90°
		Horizontal N98si-132f 	H1-174	H1-174	H1-174		
11	Glass 	Horizontal	L-252	L-292	L-252		
		Vertical, intermediate	H-H1-112	H-H1-132	H-H1-112		
		Vertical, no intermediate	H-216	H-236	H-216		
12	Infill-panel 	Horizontal	L-252	L-292	L-252		
		Vertical (N98si-122)	H1-161	H1-161	H1-161		
		Vertical (N98si-132)	H1-146	H1-146	H1-146		

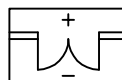


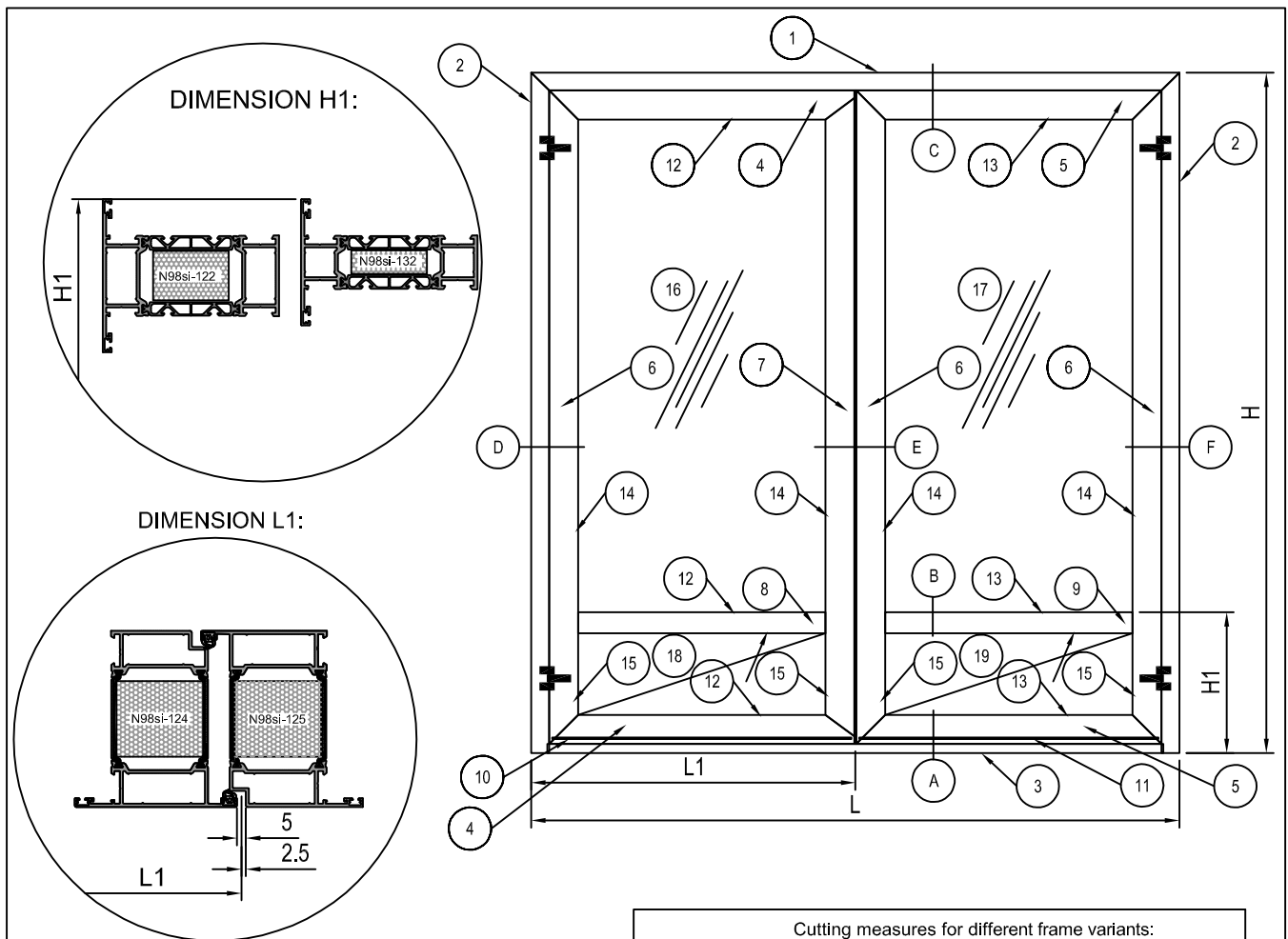


Cutting measures for different frame variants:

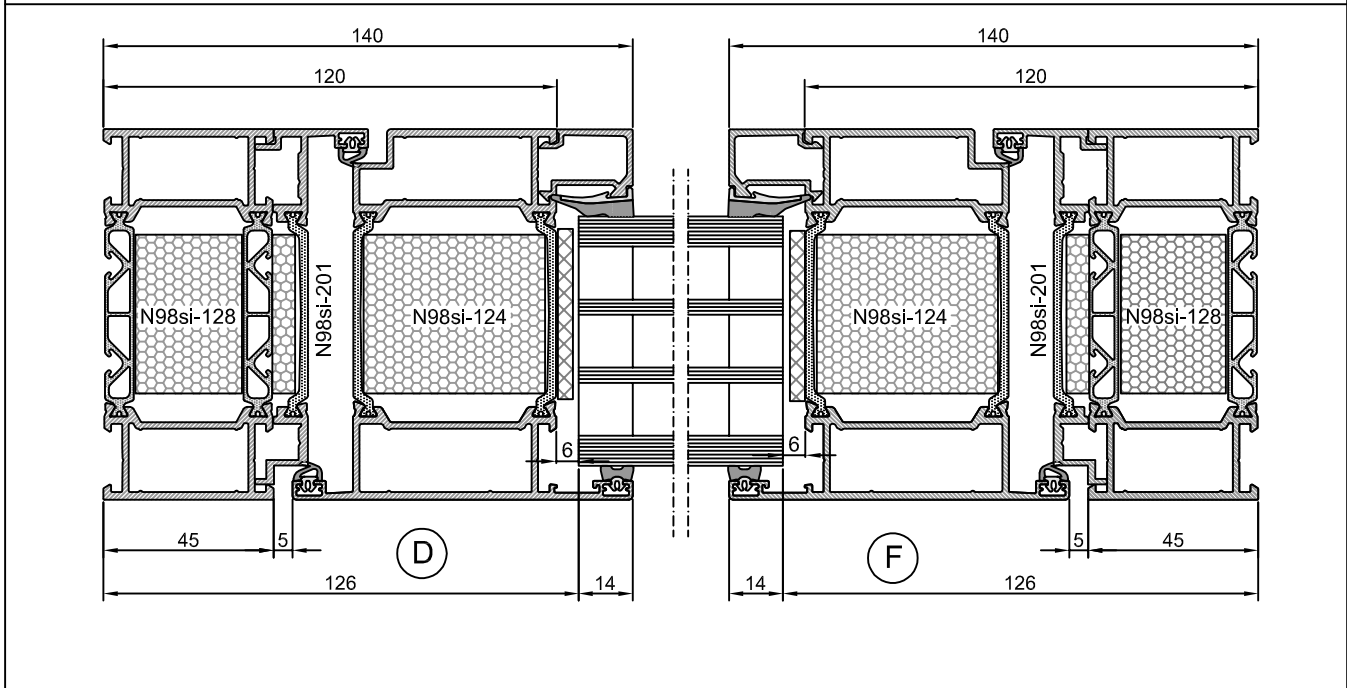
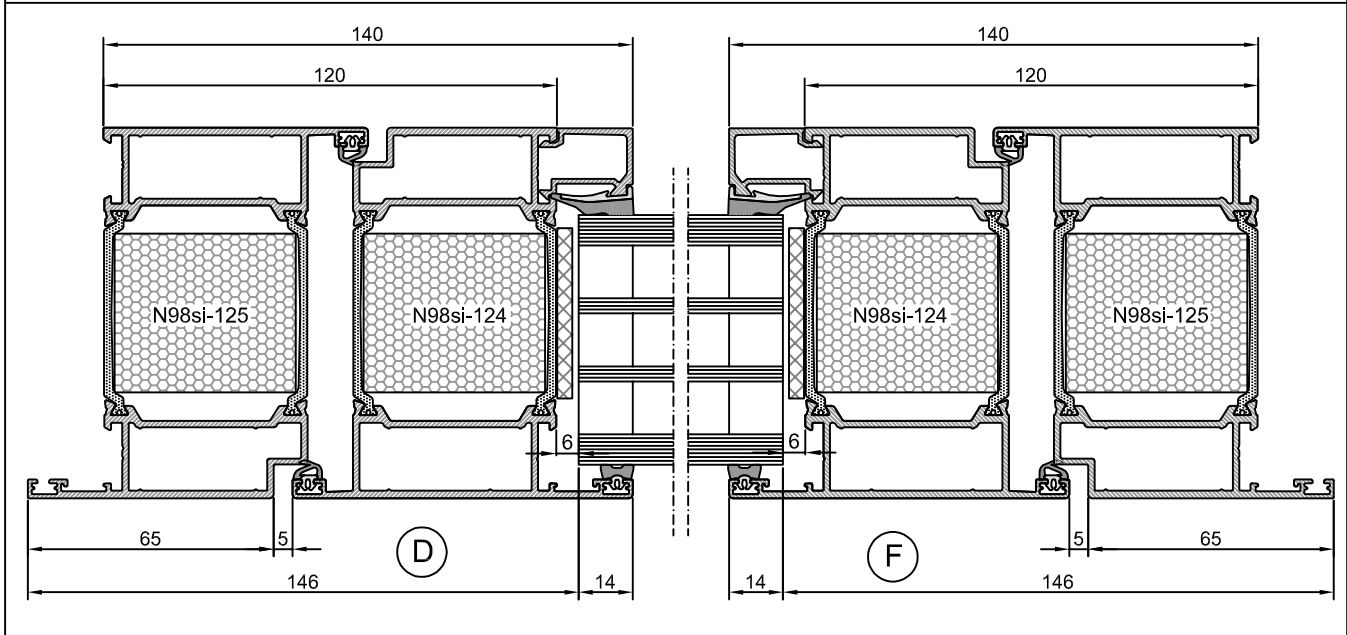
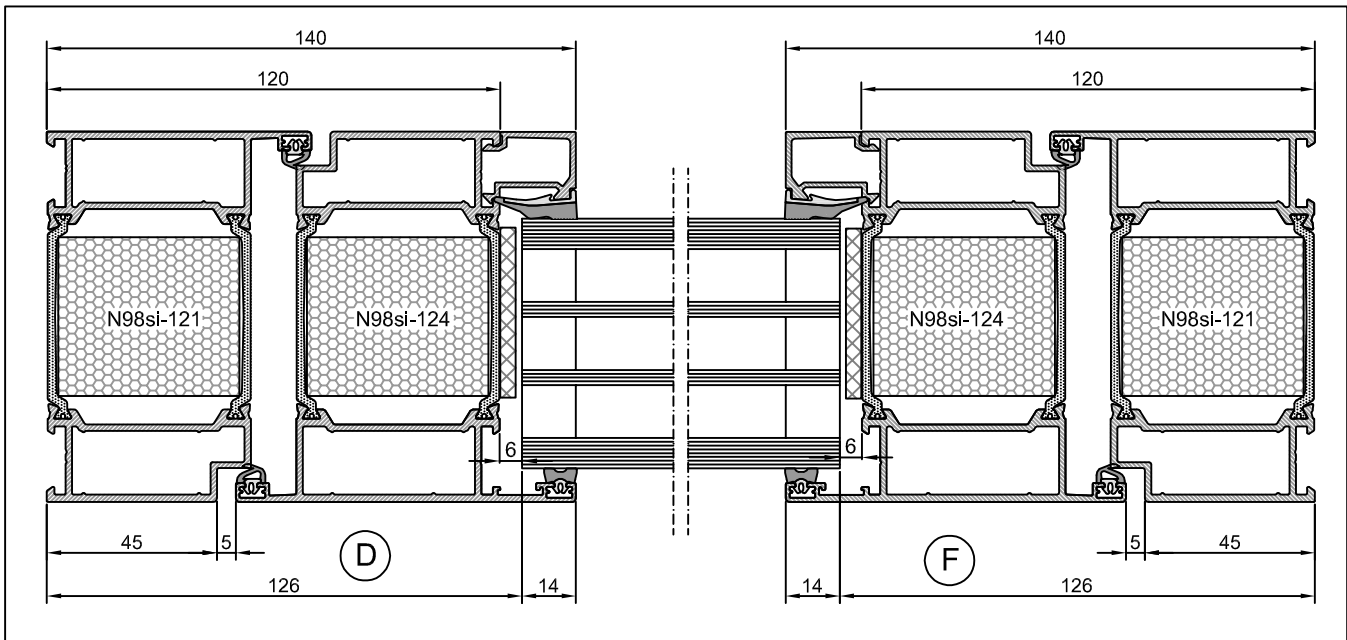
No:	Part:	Profile/orientation:	N98si-121 	N98si-125 	N98si-128  + N98si-201 	Angles:		
1	Horizontal frame	-	L	L	L	L-80	45° / 45°	
2	Vertical frame	-	H	H	H	H-40	90° / 45°	
3	Treshold	N98si-203 	L-108	L-148	L-108		90° / 90°	
4, 5	Horizontal sash	N98si-124 	4	L1-52.5	L1-72.5	L1-52.5	45° / 45°	
			5	L-L1-52.5	L-L1-72.5	L-L1-52.5		
6	Vertical sash	N98si-124 	H-64	H-84	H-64		45° / 45°	
7	Reverse profile	N98si-202 	H-118	H-138	H-118		90° / 90°	
8,9	Horizontal intermediate	N98si-122 	8	L1-192.5	L1-212.5	L1-192.5		90° / 90°
		N98si-132 	9	L-L1-192.5	L-L1-212.5	L-L1-192.5		
10,11	Treshold gasket	N98si-683 & R72-505 	10	L1-59.5	L1-79.5	L1-59.5		90° / 90°
			11	L-L1-84.5	L-L1-104.5	L-L1-84.5		
12,13	Horizontal glazinglists	-	12	L1-192.5	L1-212.5	L1-192.5		90° / 90°
			13	L-L1-192.5	L-L1-212.5	L-L1-192.5		
14	Vertical glazinglists, glass part	Horizontal intermediate	H-H1-140	H-H1-160	H-H1-140		90° / 90°	
		No horizontal intermediate	H-244	H-264	H-244			
15	Vertical glazinglists, infill-panel part	Välivaaka N98si-122	H1-189	H1-189	H1-189		90° / 90°	
		Välivaaka N98si-132	H1-174	H1-174	H1-174			
16,17	Glass 	-	16	L1-204	L1-224	L1-204		
			17	L-L1-204	L-L1-224	L-L1-204		
			Vertical, intermediate	H-H1-112	H-H1-132	H-H1-112		
			Vertical, no intermediate	H-216	H-236	H-216		
18,19	Infill-panel 	-	18	L1-204	L1-224	L1-204		
			19	L-L1-204	L-L1-224	L-L1-204		
			Vertical (N98si-122)	H1-161	H1-161	H1-161		
			Vertical (N98si-132)	H1-146	H1-146	H1-146		

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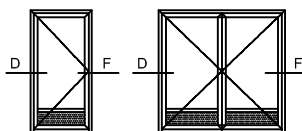




No:	Part:	Profile/orientation:	Cutting measures for different frame variants:				Angles:	
			N98si-121	N98si-125	N98si-128	+ N98si-201		
1	Horizontal frame	-	L	L	L	L-80	45° / 45°	
2	Vertical frame	-	H	H	H	H-40	90° / 45°	
3	Kynnys	N98si-203	L-108	L-148	L-108		90° / 90°	
4, 5	Horizontal sash	N98si-124	4	L1-27.5	L1-47.5	L1-27.5	45° / 45°	
			5	L-L1-52.5	L-L1-72.5	L-L1-52.5	45° / 45°	
6	Vertical sash	N98si-124	H-64	H-84	H-64		45° / 45°	
7	Vertical sash (Z-profile)	N98si-125	H-64	H-84	H-64		45° / 45°	
8,9	Horizontal intermediate	N98si-122	8	L1-167.5	L1-187.5	L1-167.5	90° / 90°	
		N98si-132		L-L1-192.5	L-L1-212.5	L-L1-192.5		
10,11	Treshold gasket	N98si-683 & R72-505	10	L1-59.5	L1-79.5	L1-59.5	90° / 90°	
			11	L-L1-84.5	L-L1-104.5	L-L1-84.5		
12,13	Horizontal glazinglists	-	12	L1-167.5	L1-187.5	L1-167.5	90° / 90°	
			13	L-L1-192.5	L-L1-212.5	L-L1-192.5		
14	Vertical glazinglists, glass part	Horizontal intermediate		H-H1-140	H-H1-160	H-H1-140	90° / 90°	
		No horizontal intermediate		H-244	H-264	H-244		
15	Vertical glazinglists, infill-panel part	Horizontal N98si-122		H1-189	H1-189	H1-189	90° / 90°	
		Horizontal N98si-132		H1-174	H1-174	H1-174		
16,17	Glass	Horizontal	16	L1-179	L1-199	L1-179		
			17	L-L1-204	L-L1-224	L-L1-204		
			Vertical, intermediate		H-H1-112	H-H1-132		H-H1-112
18,19	Infill-panel	Vertical, no intermediate		H-216	H-236	H-216		
			Horizontal	18	L1-179	L1-199		L1-179
			19	L-L1-204	L-L1-224	L-L1-204		
		Vertical (N98si-122)		H1-161	H1-161	H1-161		
		Vertical (N98si-132)		H1-146	H1-146	H1-146		

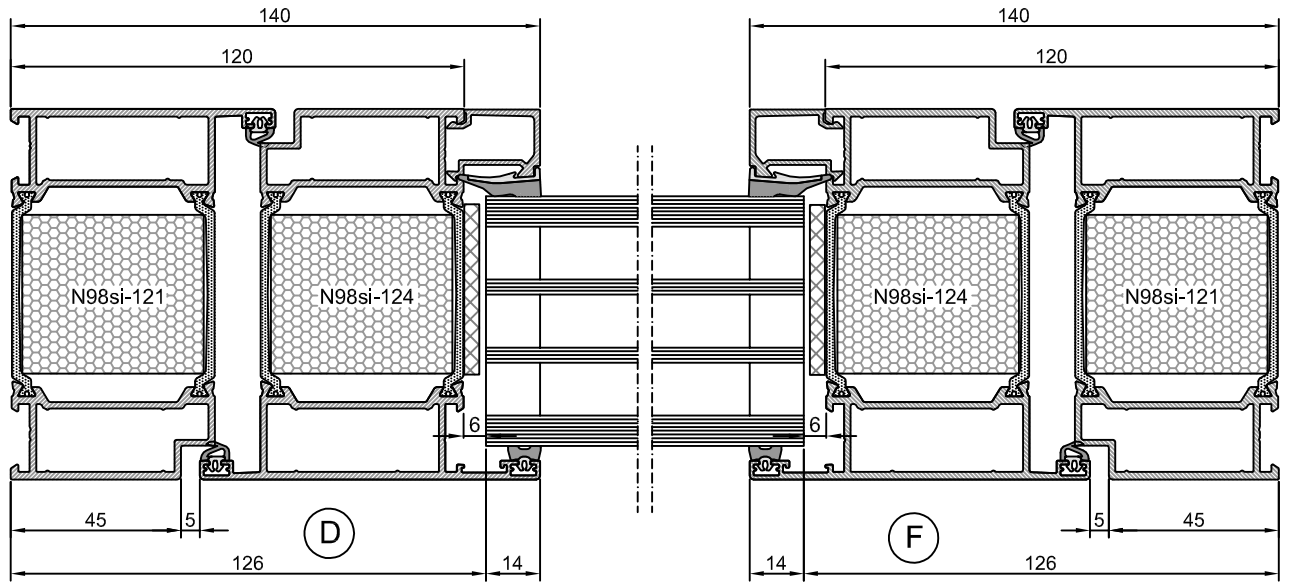


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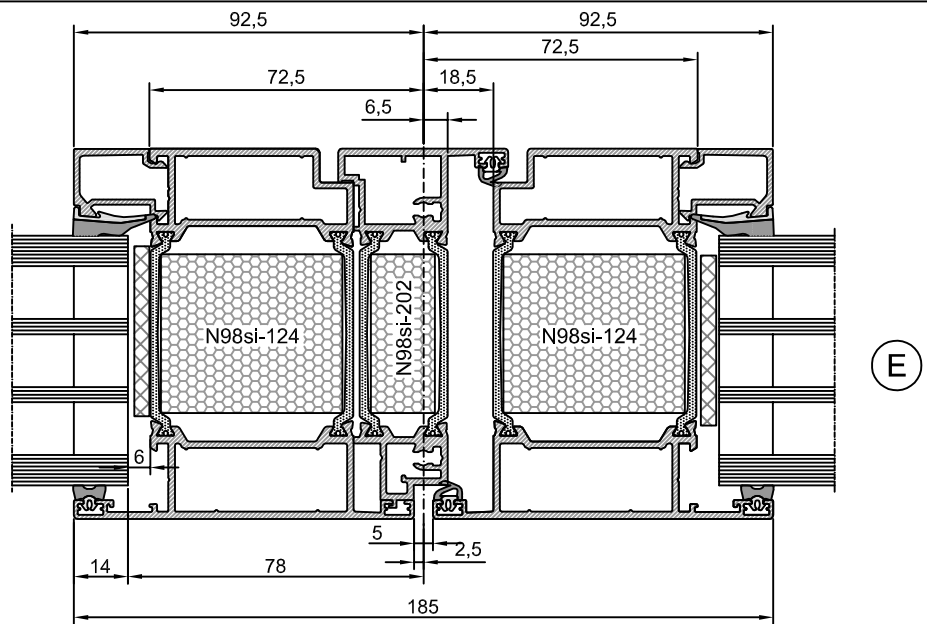


N98si

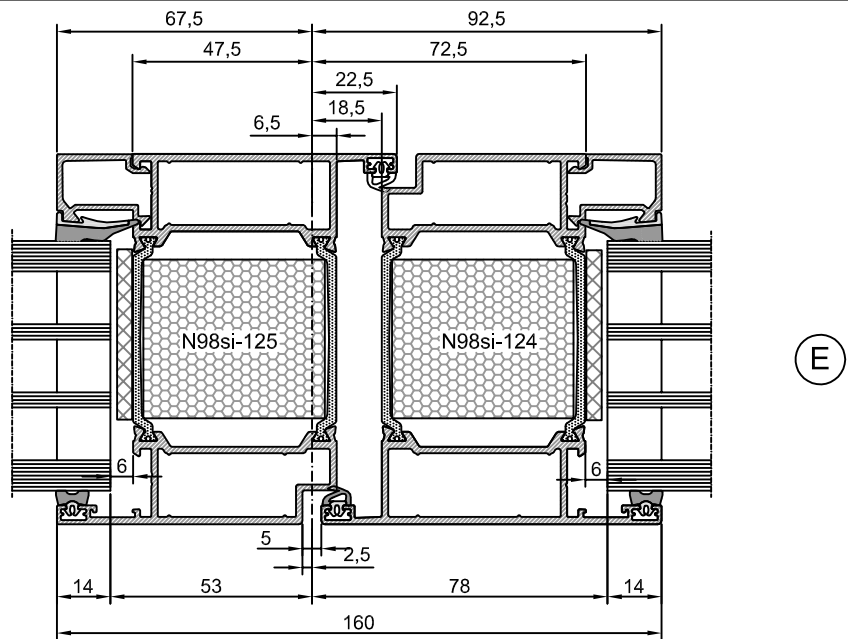
Outside openable doors. Details D & F



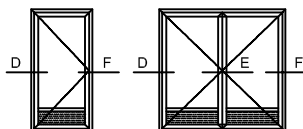
Reverse profile
N98si-202



Z-profile N98si-125



N98si



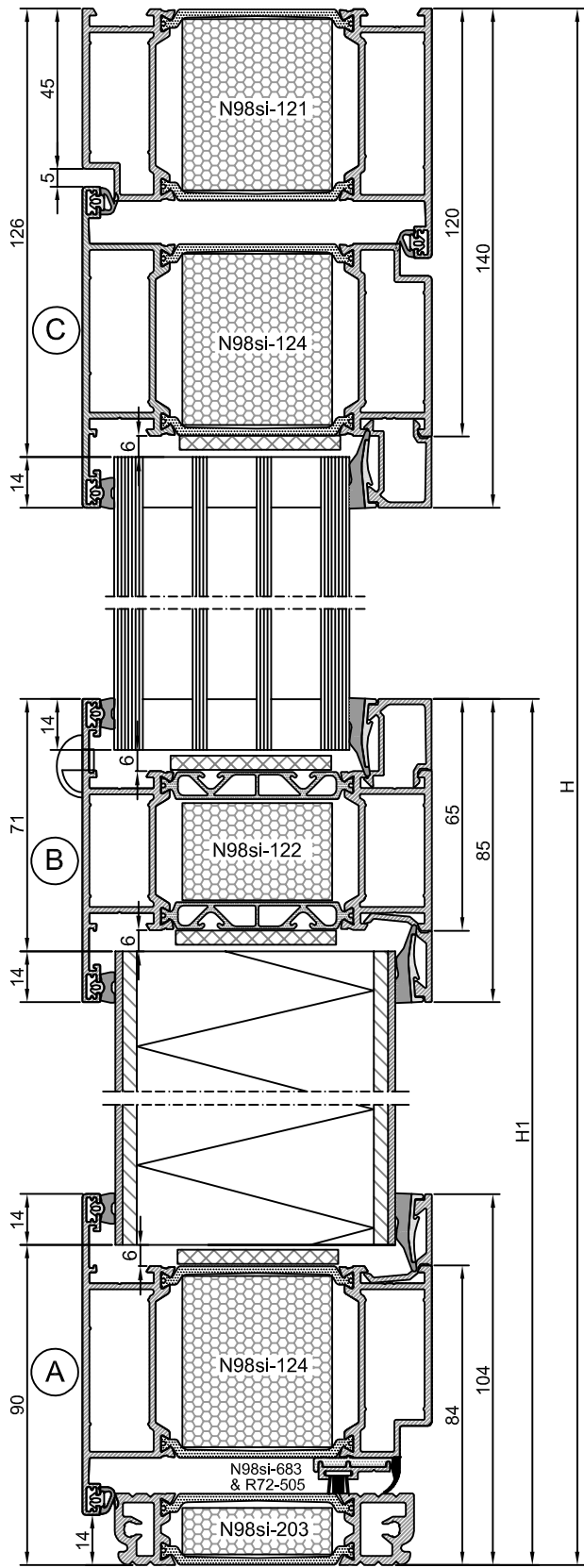
NOKIAN
PROFILES



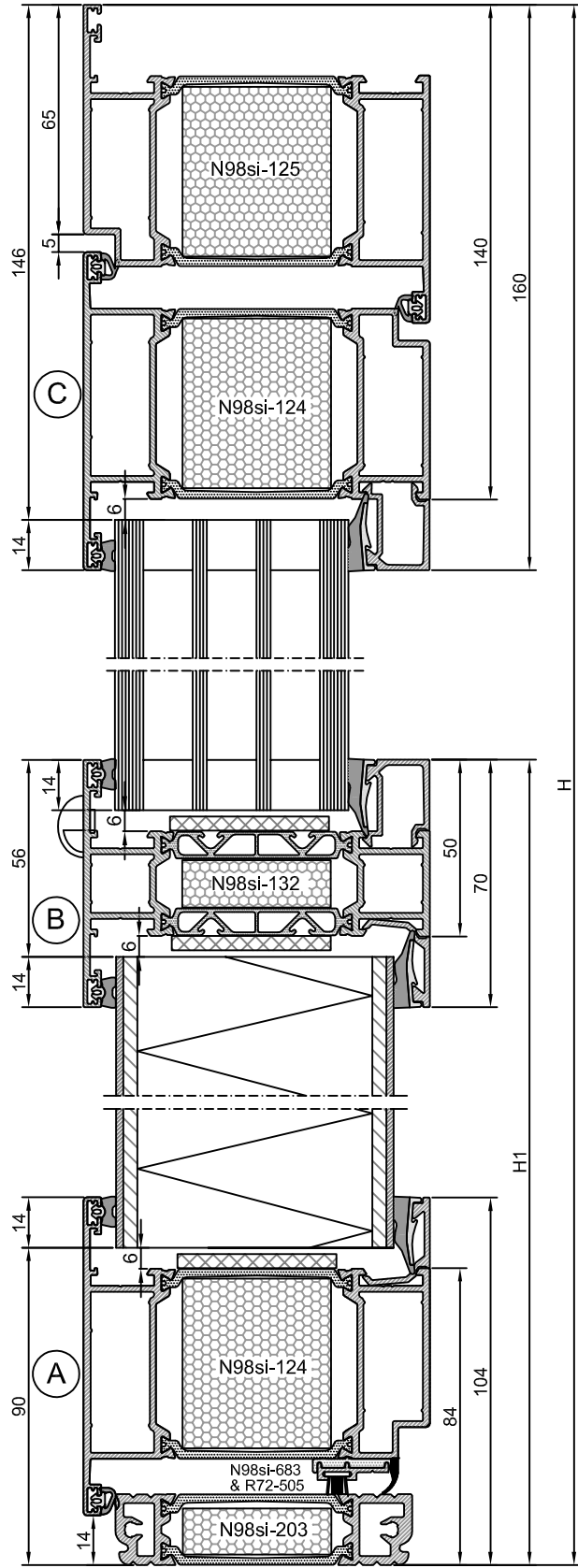
01.04.2016

2.9

Frame N98si-121 / transome N98si-122f

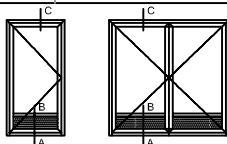


Frame N98si-125 / transome N98si-132f



01.04.2016

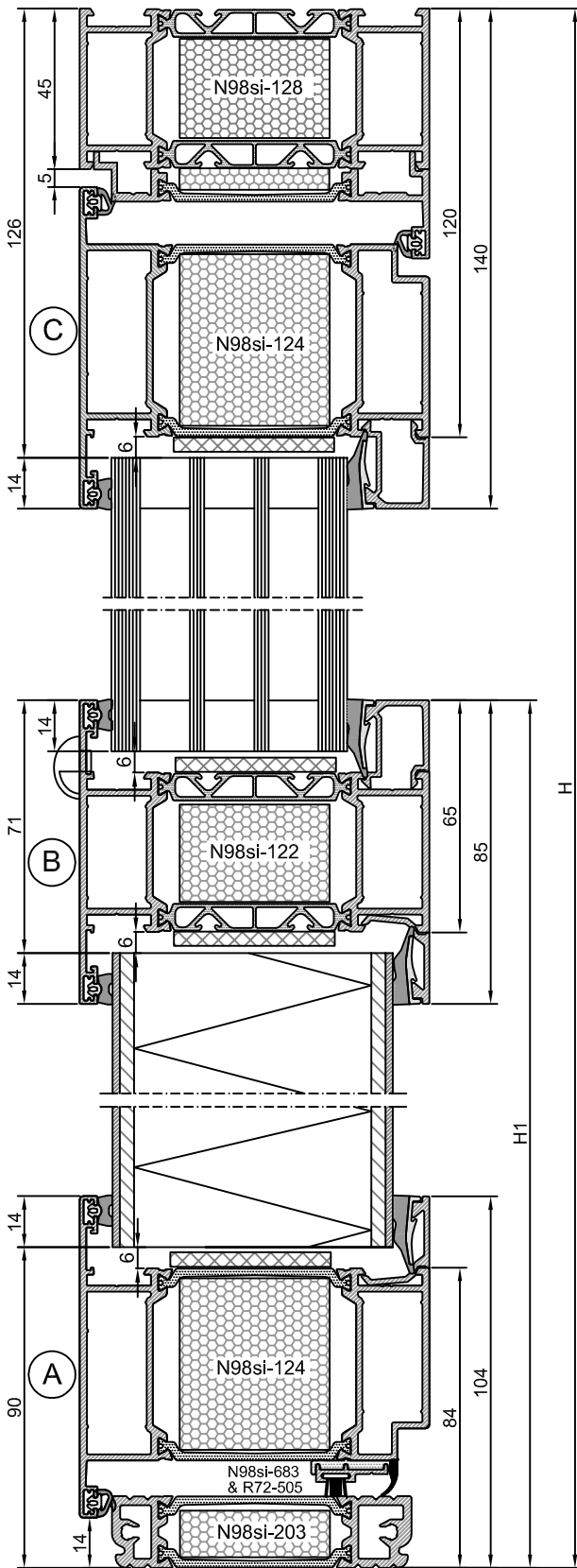
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PROFILES



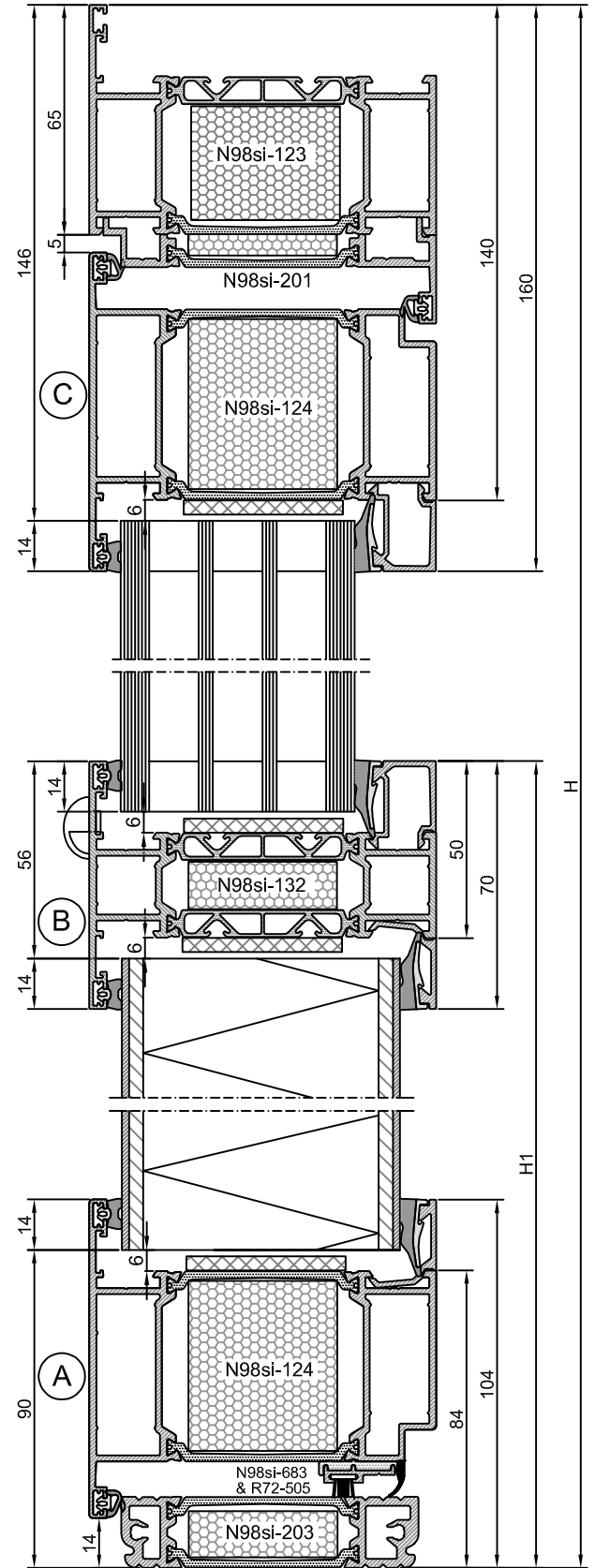
N98si

Outside openable doors. Details A, B & C. Frames N98si-121 & N98si-125

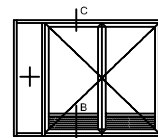
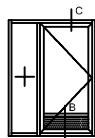
Frame N98si-128 / transome N98si-122



Frame N98si-123 / transome N98si-132



N98si

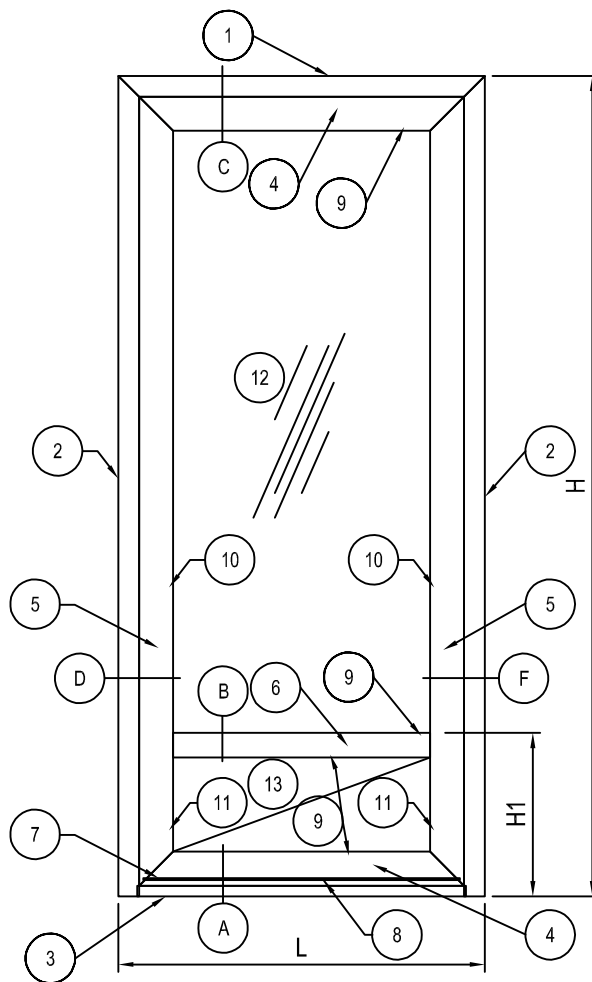
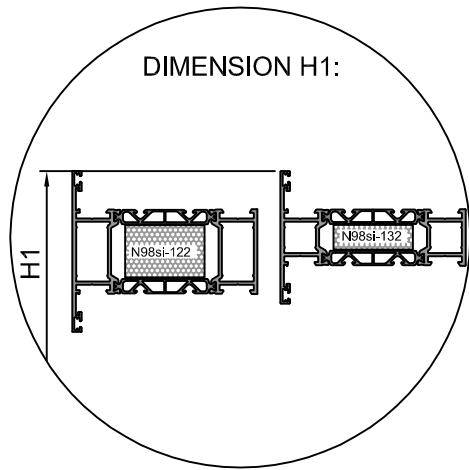


NOKIAN
PROFILES



















01.04.2016

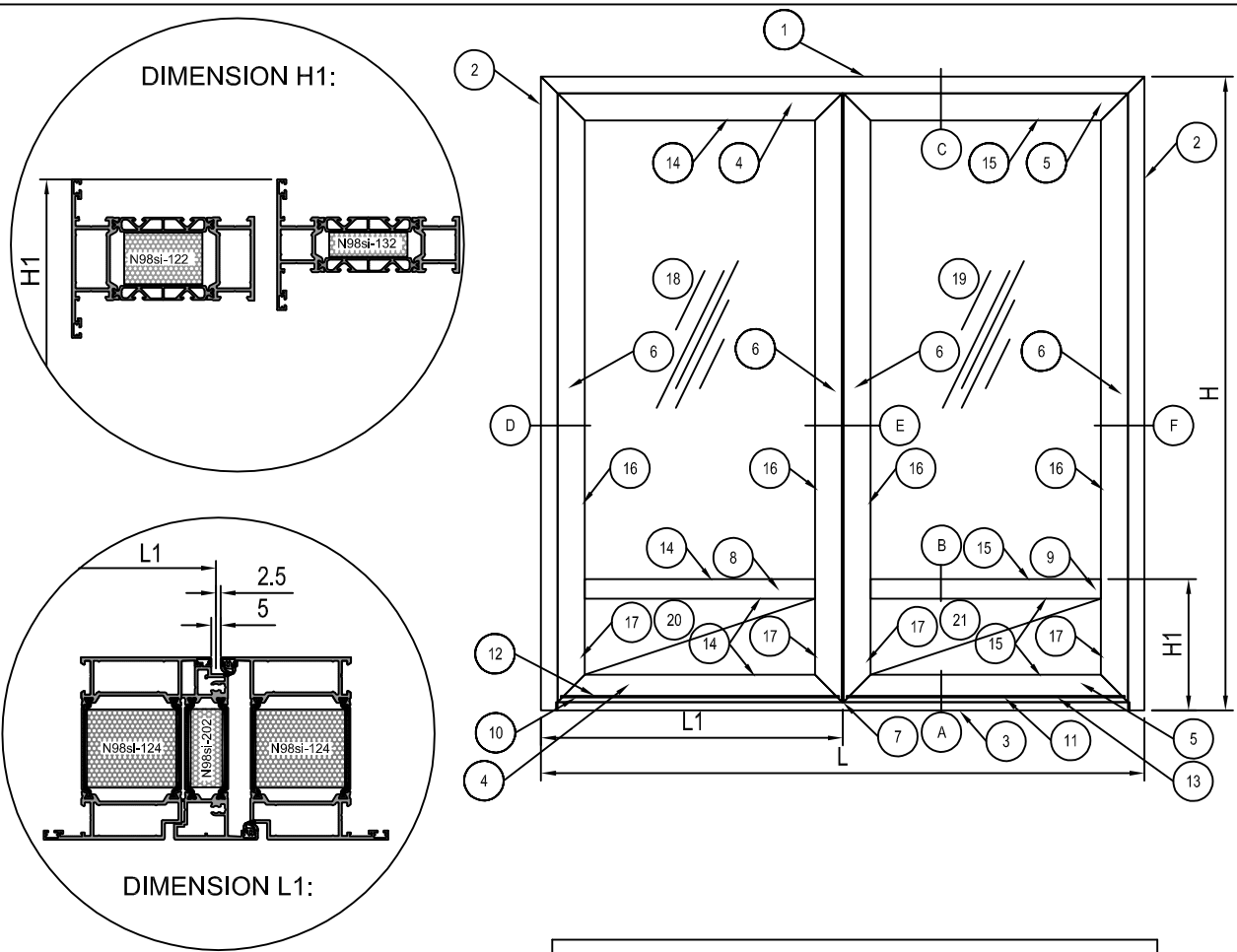
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















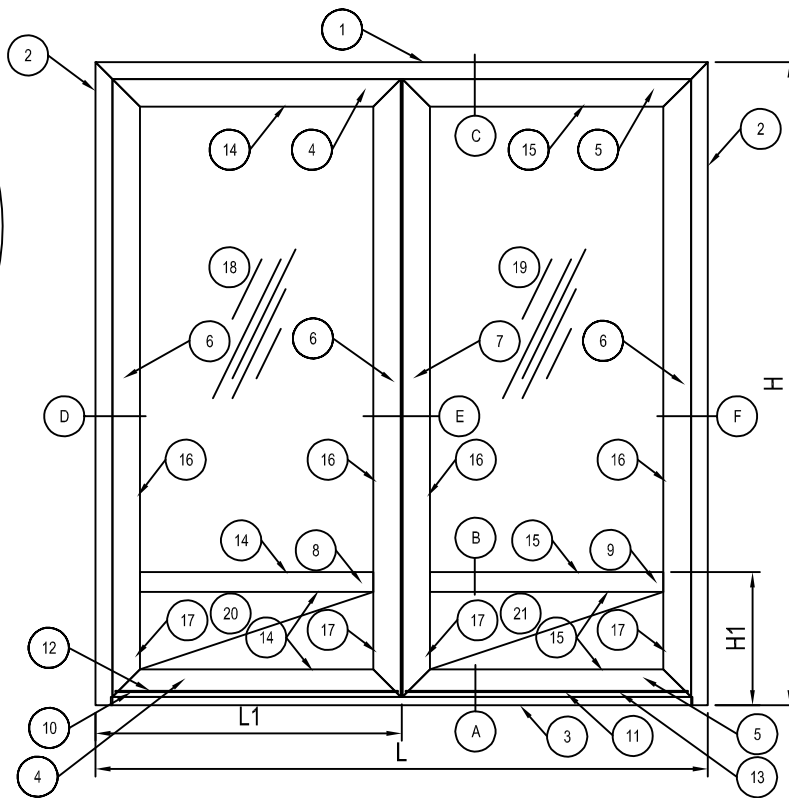
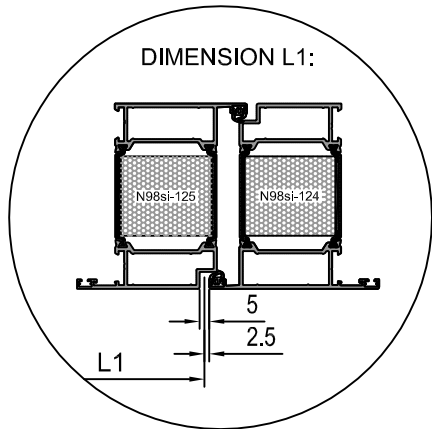
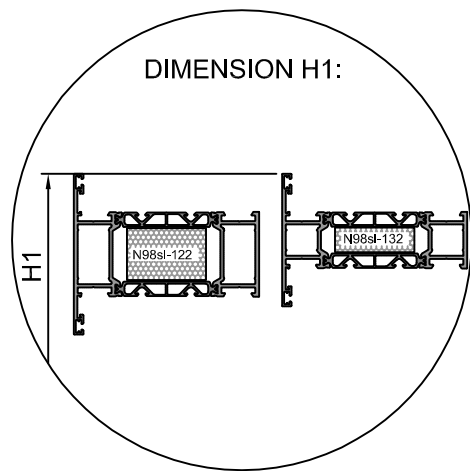
Cutting measures for different frame variants:

No:	Part:	Profile/orientation:	N98si-121 	N98si-124 	R72-128  + R72-201 	Angles:	
1	Horizontal frame	-	L	L	L	L-80	45° / 45°
2	Vertical frame	-	H	H	H	H-40	90° / 45°
3	Threshold	N98si-203 	L-108	L-148	L-108		90° / 90°
4	Horizontal sash	N98si-125 	L-100	L-140	L-100		45° / 45°
5	Vertical sash	N98si-125 	H-64	H-84	H-64		45° / 45°
6	Horizontal intermediate	N98si-122 	L-240	L-280	L-240		90° / 90°
		N98si-132 					
7	Threshold gasket	N98si-683 & R72-505 	L-132	L-172	L-132		90° / 90°
8	Drip moulding	R72-524 	L-150	L-190	L-150		90° / 90°
9	Horizontal glazinglists	-	L-240	L-280	L-240		90° / 90°
10	Vertical glazinglists, glass part	Horizontal intermediate 	H-H1-140	H-H1-160	H-H1-140		90° / 90°
		No horizontal intermediate	H-244	H-264	H-244		
11	Vertical glazinglists, infill-panel part	Horizontal N98si-122 	H1-189	H1-189	H1-189		90° / 90°
		Horizontal N98si-132 	H1-174	H1-174	H1-174		
12	Glass 	Horizontal	L-252	L-292	L-252		
		Vertical, intermediate	H-H1-112	H-H1-132	H-H1-112		
		Vertical, no intermediate	H-216	H-236	H-216		
13	Infill-panel 	Horizontal	L-252	L-292	L-252		
		Vertical (N98si-122)	H1-161	H1-161	H1-161		
		Vertical (N98si-132)	H1-146	H1-146	H1-146		

01.04.2016

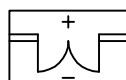


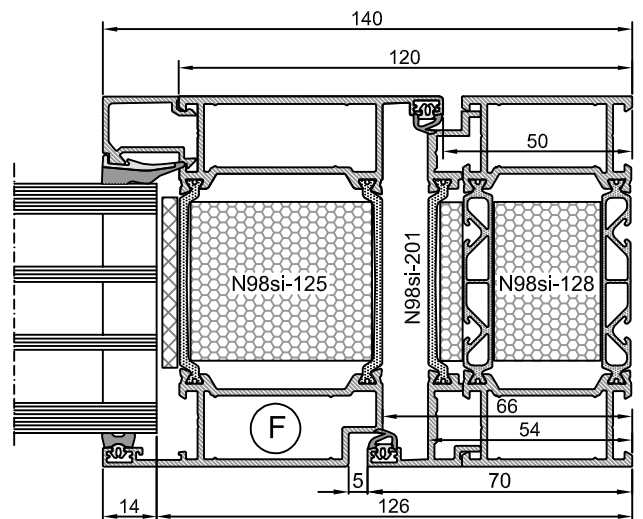
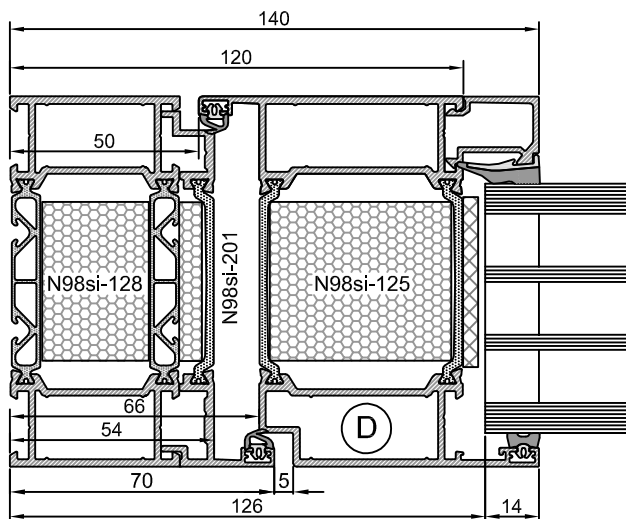
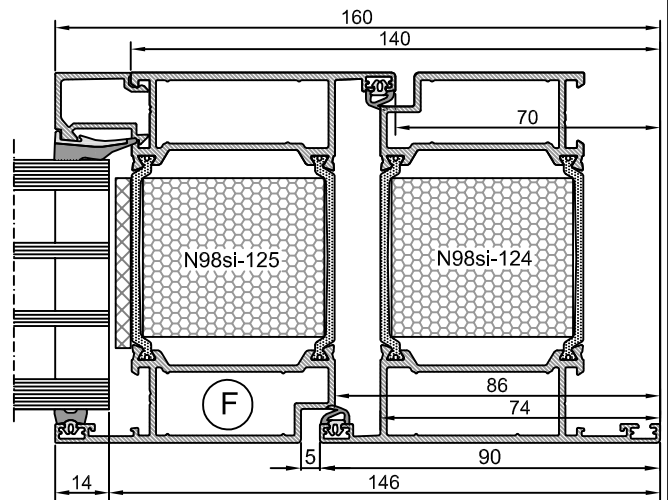
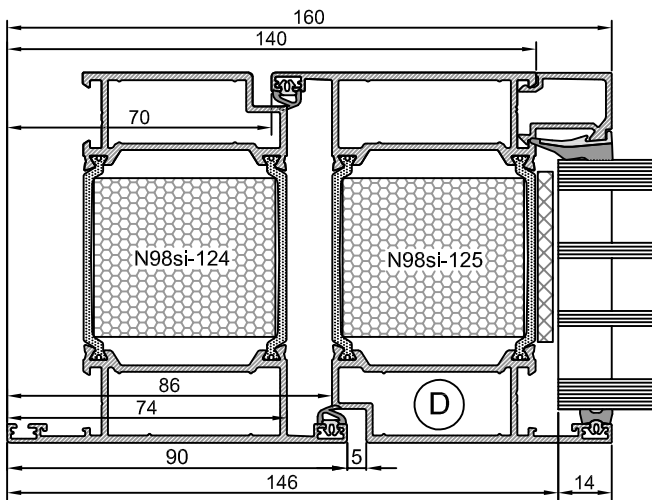
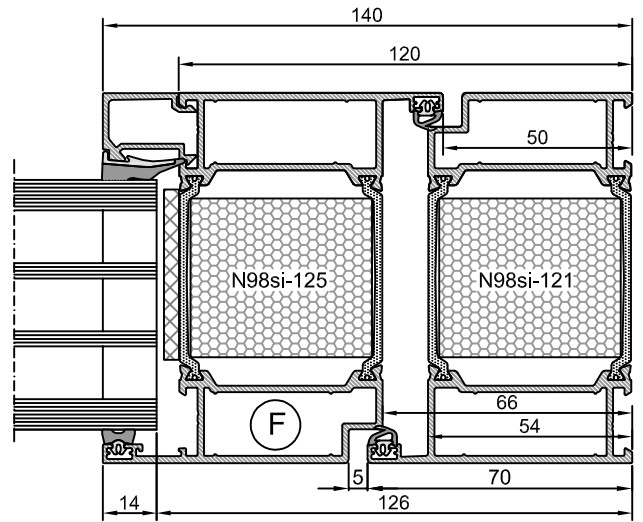
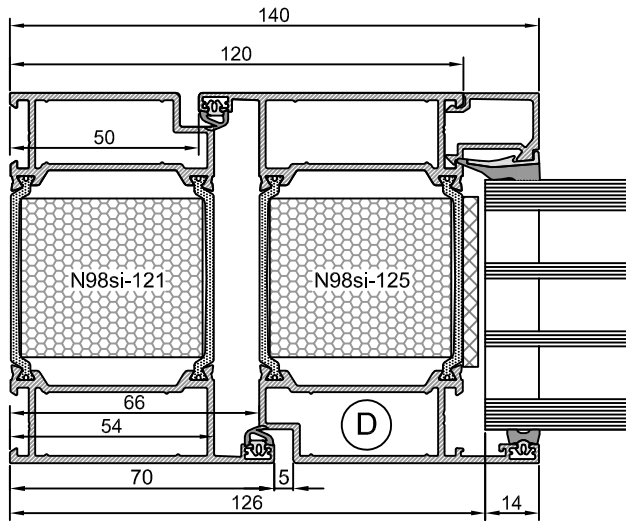
		Cutting measures for different frame variants:					
No:	Part:	Profile/orientation:	N98si-121 	N98si-124 	N98si-128  + N98si-201 	Angles:	
1	Horizontal frame	-	L	L	L	L-80	45° / 45°
2	Vertical frame	-	H	H	H	H-40	90° / 45°
3	Threshold	N98si-203 	L-108	L-148	L-108		90° / 90°
4, 5	Horizontal sash	N98si-125 	4	L1-52.5	L1-72.5	L1-52.5	45° / 45°
			5	L-L1-52.5	L-L1-72.5	L-L1-52.5	
6	Vertical sash	N98si-125 	H-64	H-84	H-64		45° / 45°
7	Reverse profile	N98si-202 	H-118	H-138	H-118		90° / 90°
8,9	Horizontal intermediate	N98si-122  N98si-132 	8	L1-192.5	L1-212.5	L1-192.5	90° / 90°
			9	L-L1-192.5	L-L1-212.5	L-L1-192.5	
10,11	Threshold gasket	N98si-683 & R72-505 	10	L1-59.5	L1-79.5	L1-59.5	90° / 90°
			11	L-L1-84.5	L-L1-104.5	L-L1-84.5	
12,13	Drip moulding	R72-524 	12	L1-52.5	L1-72.5	L1-52.5	-
			13	L-L1-47.5	L-L1-67.5	L-L1-47.5	
14,15	Horizontal glazinglists 	-	14	L1-192.5	L1-212.5	L1-192.5	90° / 90°
			15	L-L1-192.5	L-L1-212.5	L-L1-192.5	
16	Vertical glazinglists, glass part 	Horizontal intermediate	H-H1-140	H-H1-160	H-H1-140		90° / 90°
		No horizontal intermediate	H-244	H-264	H-244		
17	Vertical glazinglists, infill-panel part 	Horizontal N98si-122	H1-189	H1-189	H1-189		90° / 90°
		Horizontal N98si-132	H1-174	H1-174	H1-174		
18,19		Horizontal	18	L1-204	L1-224	L1-204	
		Vertical, intermediate	19	L-L1-204	L-L1-224	L-L1-204	
		Vertical, no intermediate	H-216	H-236	H-216		
20,21		Horizontal	20	L1-204	L1-224	L1-204	
		Vertical (N98si-122)	21	L-L1-204	L-L1-224	L-L1-204	
		Vertical (N98si-132)	H1-161	H1-161	H1-161		
		Vertical (N98si-132)	H1-146	H1-146	H1-146		



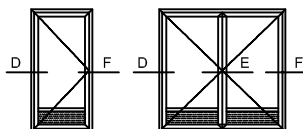
Cutting measures for different frame variants:

No:	Part:	Profile/orientation:	N98si-121	N98si-124	N98si-128 + N98si-201	Angles:		
1	Horizontal frame	-	L	L	L	L-80	45° / 45°	
2	Vertical frame	-	H	H	H	H-40	90° / 45°	
3	Kynnsys	N98si-203	L-108	L-148	L-108		90° / 90°	
4, 5	Horizontal sash	N98si-125	4	L1-27.5	L1-47.5	L1-27.5	45° / 45°	
			5	L-L1-52.5	L-L1-72.5	L-L1-52.5	45° / 45°	
6	Vertical sash	N98si-125	H-64	H-84	H-64		45° / 45°	
7	Vertical sash (Z-profile)	N98si-124	H-64	H-84	H-64		45° / 45°	
8,9	Horizontal intermediate	N98si-122	8	L1-167.5	L1-187.5	L1-167.5	90° / 90°	
		N98si-132	9	L-L1-192.5	L-L1-212.5	L-L1-192.5		
10,11	Threshold gasket	N98si-683 & R72-505	10	L1-59.5	L1-79.5	L1-59.5	90° / 90°	
			11	L-L1-84.5	L-L1-104.5	L-L1-84.5		
12,13	Drip moulding	R72-524	12	L1-77.5	L1-97.5	L1-77.5	-	
			13	L-L1-77.5	L-L1-97.5	L-L1-77.5		
14,15	Horizontal glazinglists	-	14	L1-167.5	L1-187.5	L1-167.5	90° / 90°	
			15	L-L1-192.5	L-L1-212.5	L-L1-192.5		
16	Vertical glazinglists, glass part	Horizontal intermediate	H-H1-140	H-H1-160	H-H1-140	90° / 90°		
		No horizontal intermediate	H-244	H-264	H-244			
17	Vertical glazinglists, infill-panel part	Horizontal N98si-122	H1-189	H1-189	H1-189	90° / 90°		
		Horizontal N98si-132	H1-174	H1-174	H1-174			
18,19	Glass	Horizontal	18	L1-179	L1-199	L1-179		
			19	L-L1-204	L-L1-224	L-L1-204		
			Vertical, intermediate	H-H1-112	H-H1-132	H-H1-112		
20,21	Infill-panel	Vertical, no intermediate	H-216	H-236	H-216			
			Horizontal	20	L1-179		L1-199	L1-179
			21	L-L1-204	L-L1-224		L-L1-204	
	Vertical (N98si-122)	H1-161	H1-161	H1-161				
	Vertical (N98si-132)	H1-146	H1-146	H1-146				





N98si



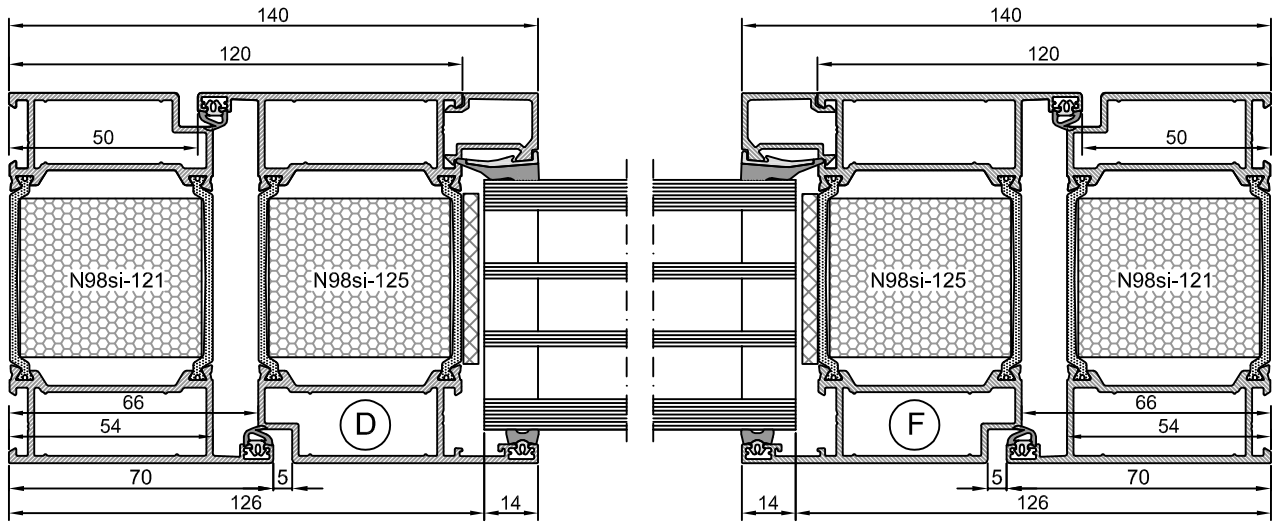
NOKIAN
PROFILES



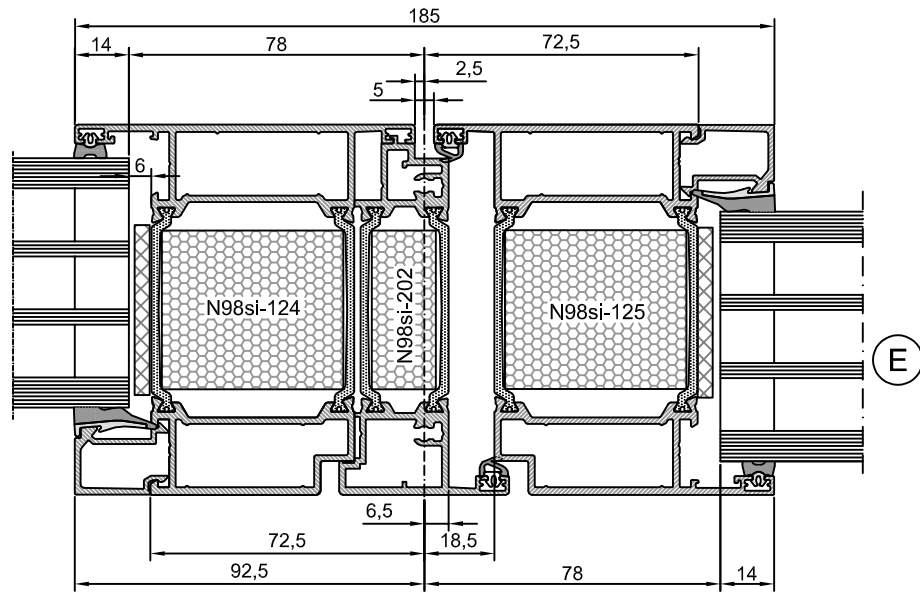
01.04.2016

2.15

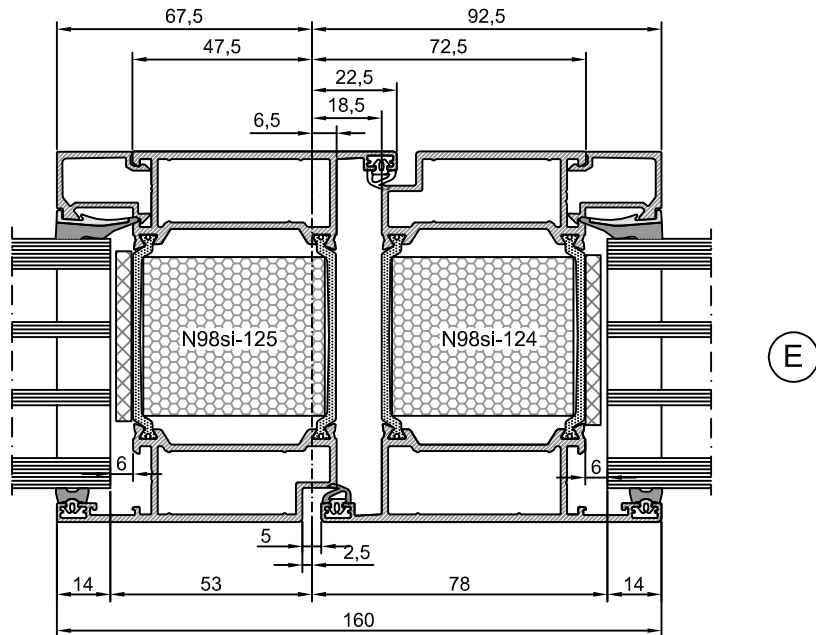
Inside openable doors. Details D & F



Reverse profile N98si-202



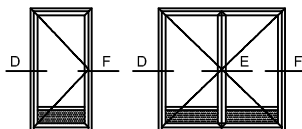
T-profile N98si-124



01.04.2016

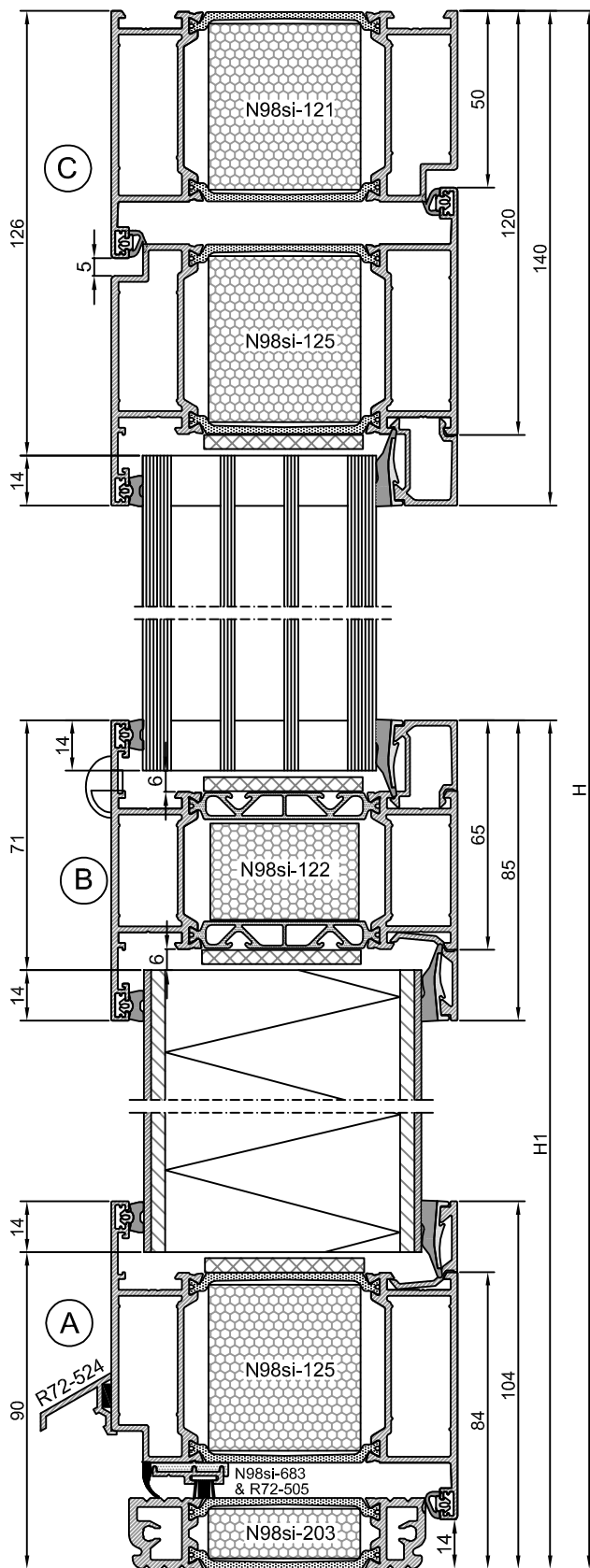
2.16

NOKIAN
PROFILES

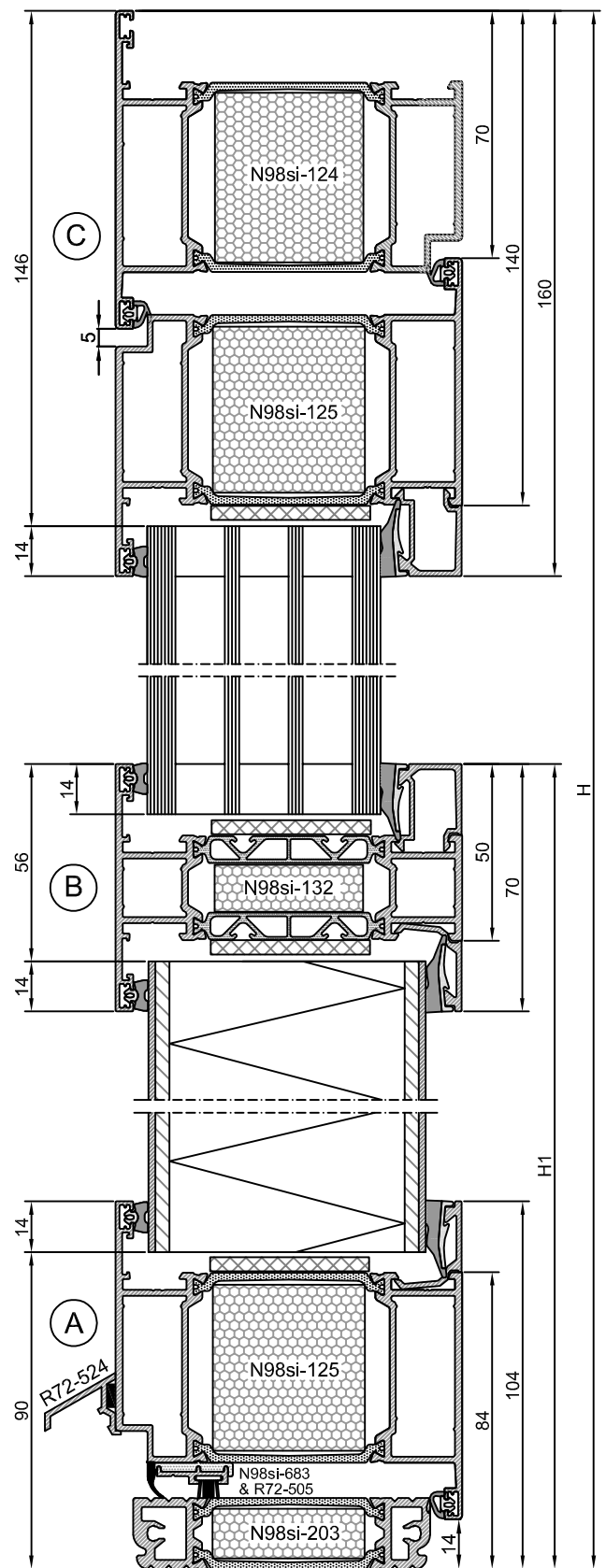


N98si

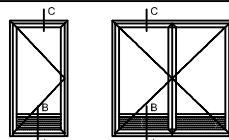
Frame N98si-121 / transome N98si-122



Frame N98si-124 / transome N98si-132



N98si



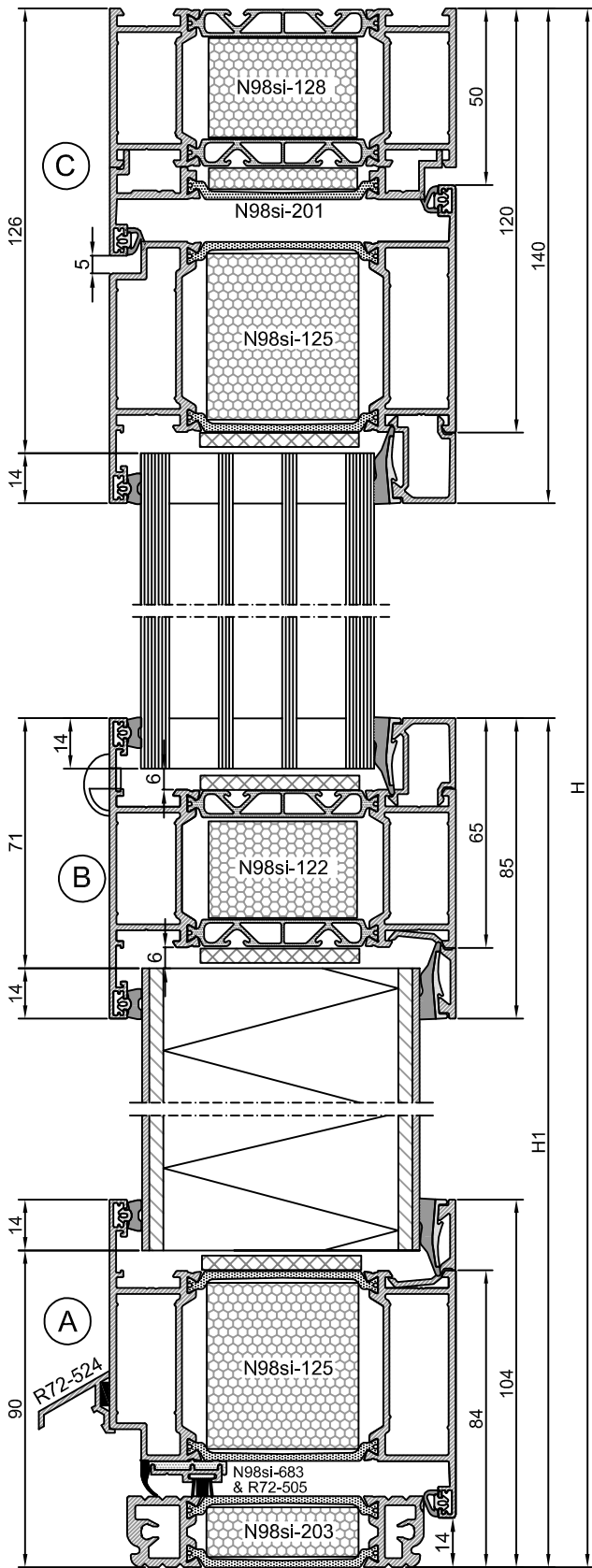
NOKIAN
PROFILES



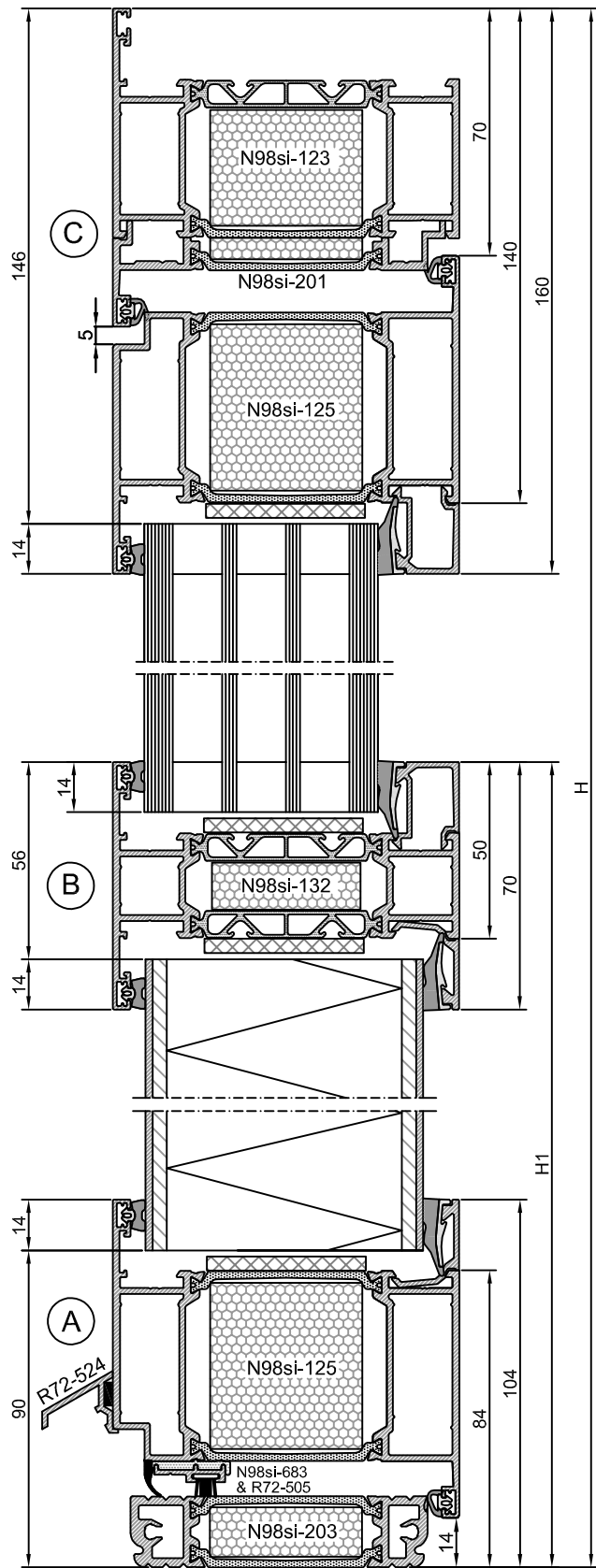
01.04.2016

217

Frame N98si-128 / transome N98si-122

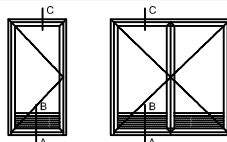


Frame N98si-123 / transome N98si-132



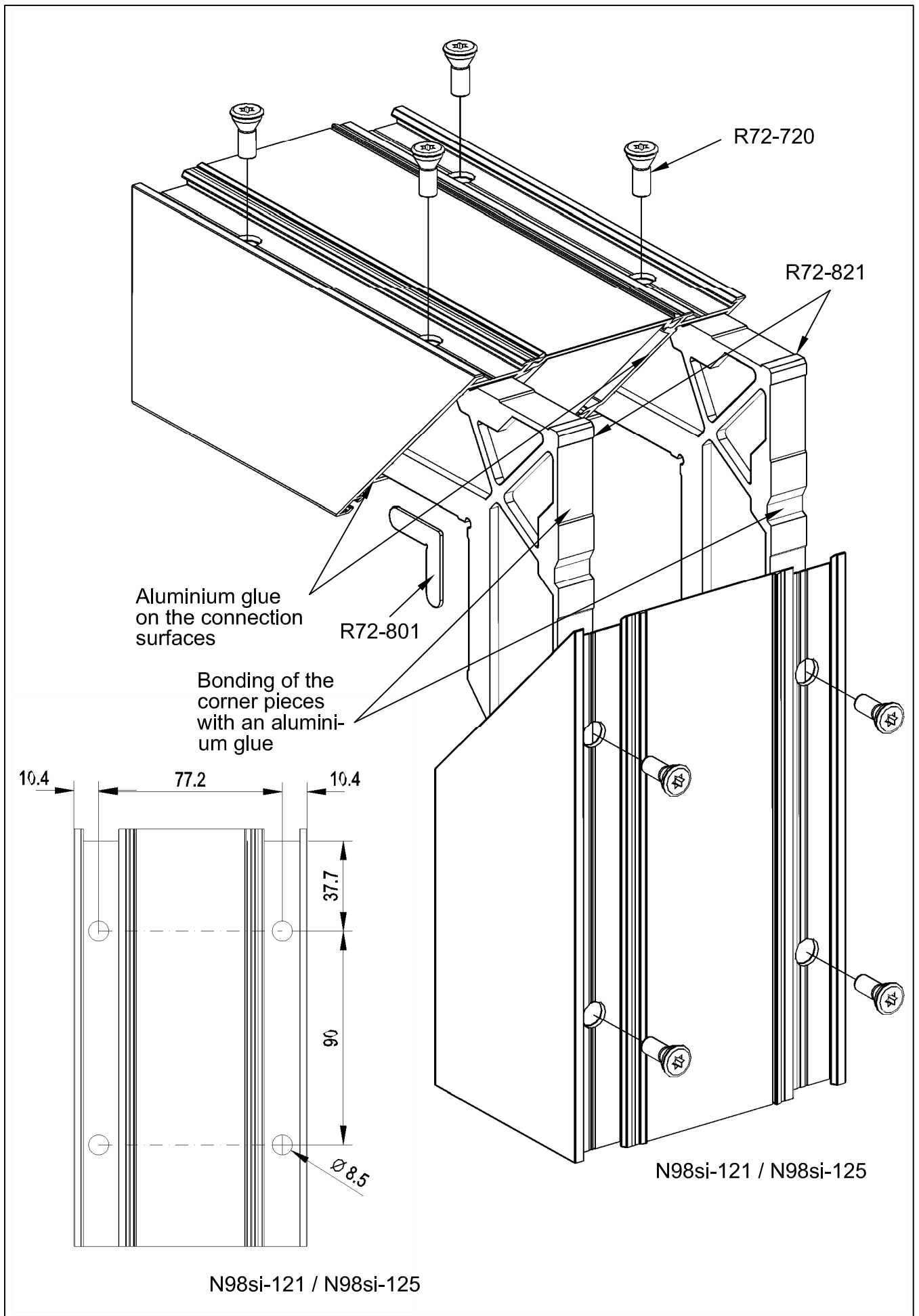
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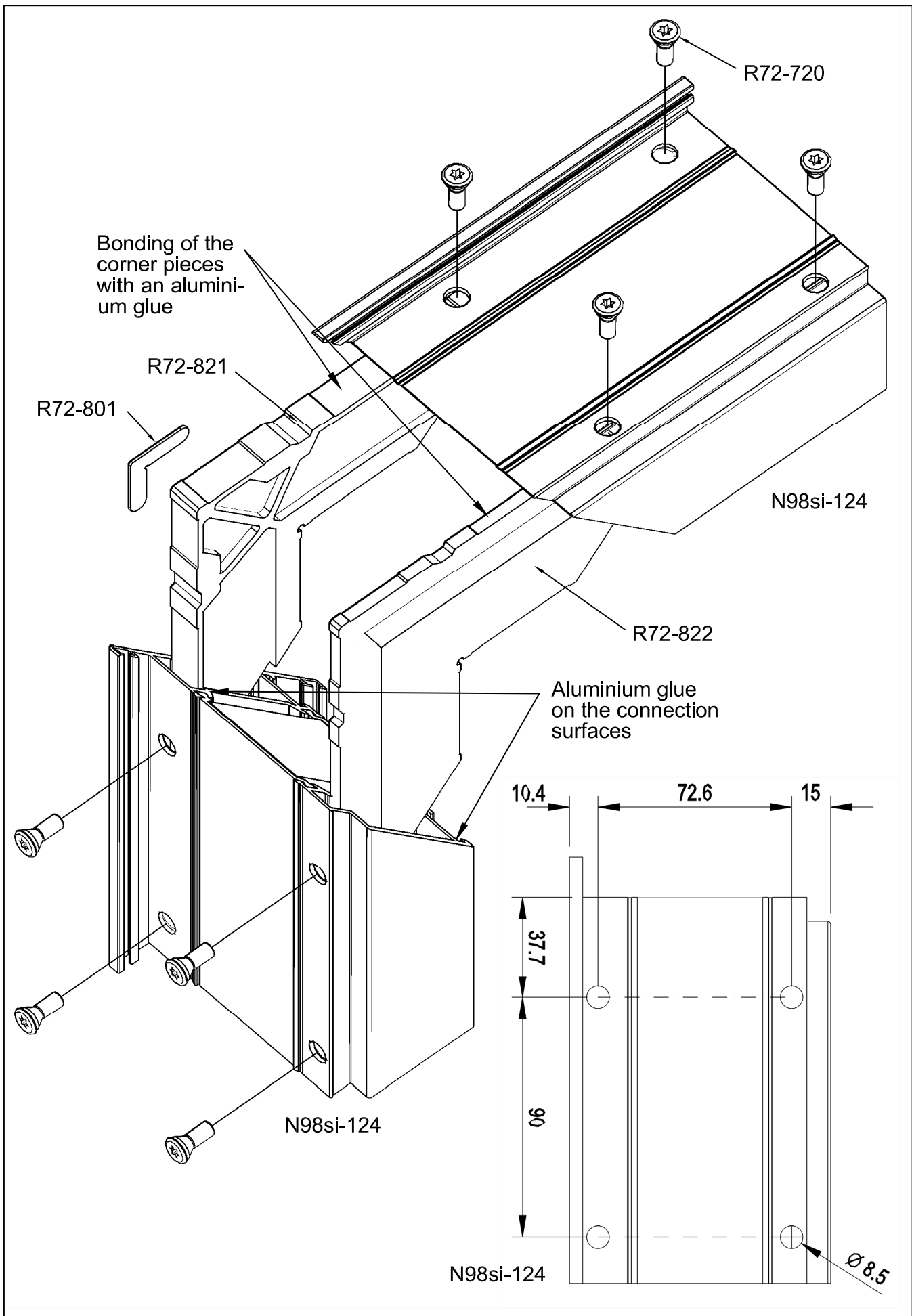
218 **NOKIAN**
PROFILES



N98si

Inside openable doors. Details A, B & C. Frames N98si-128 & N98si-123





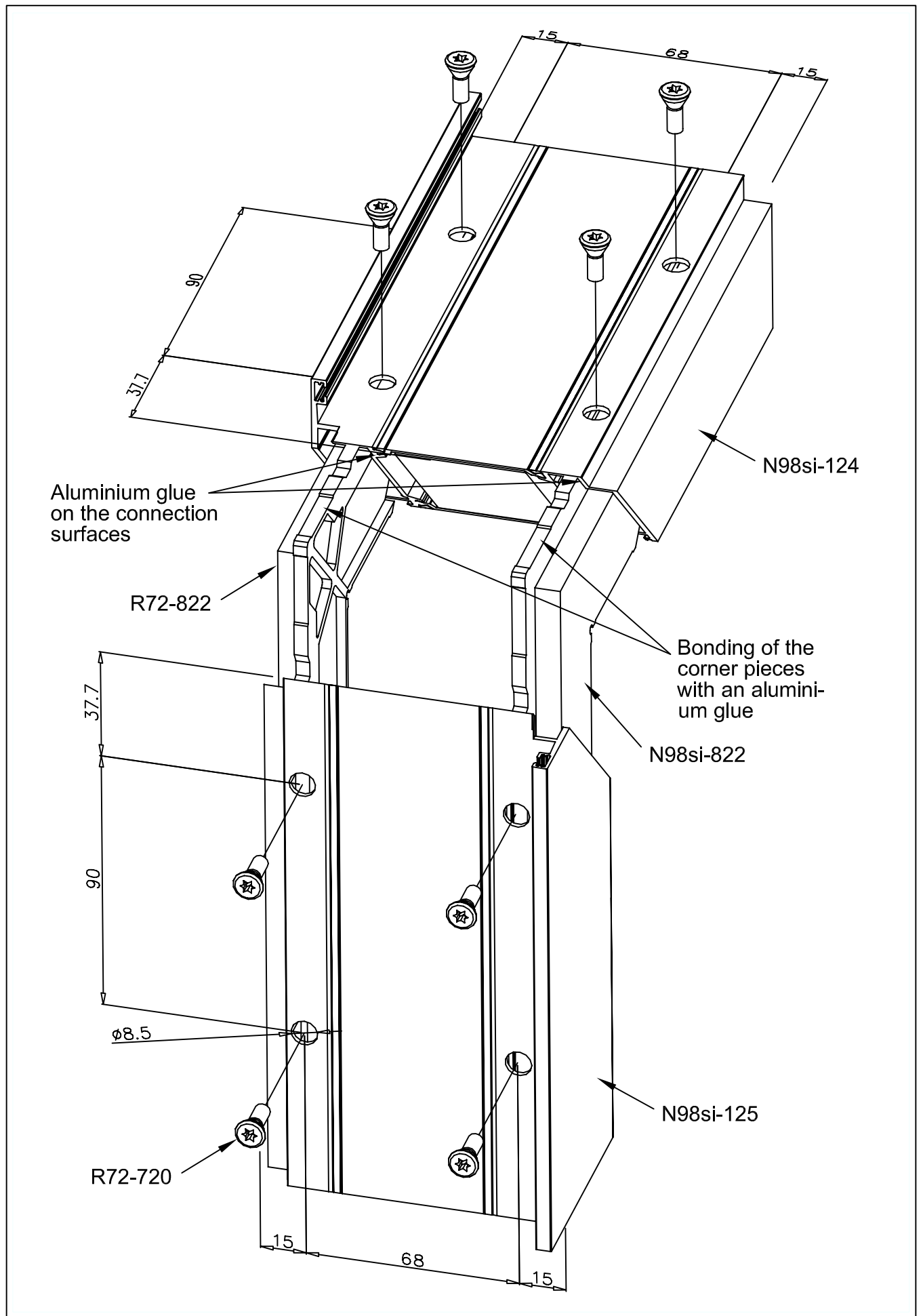
01.04.2016

2.20

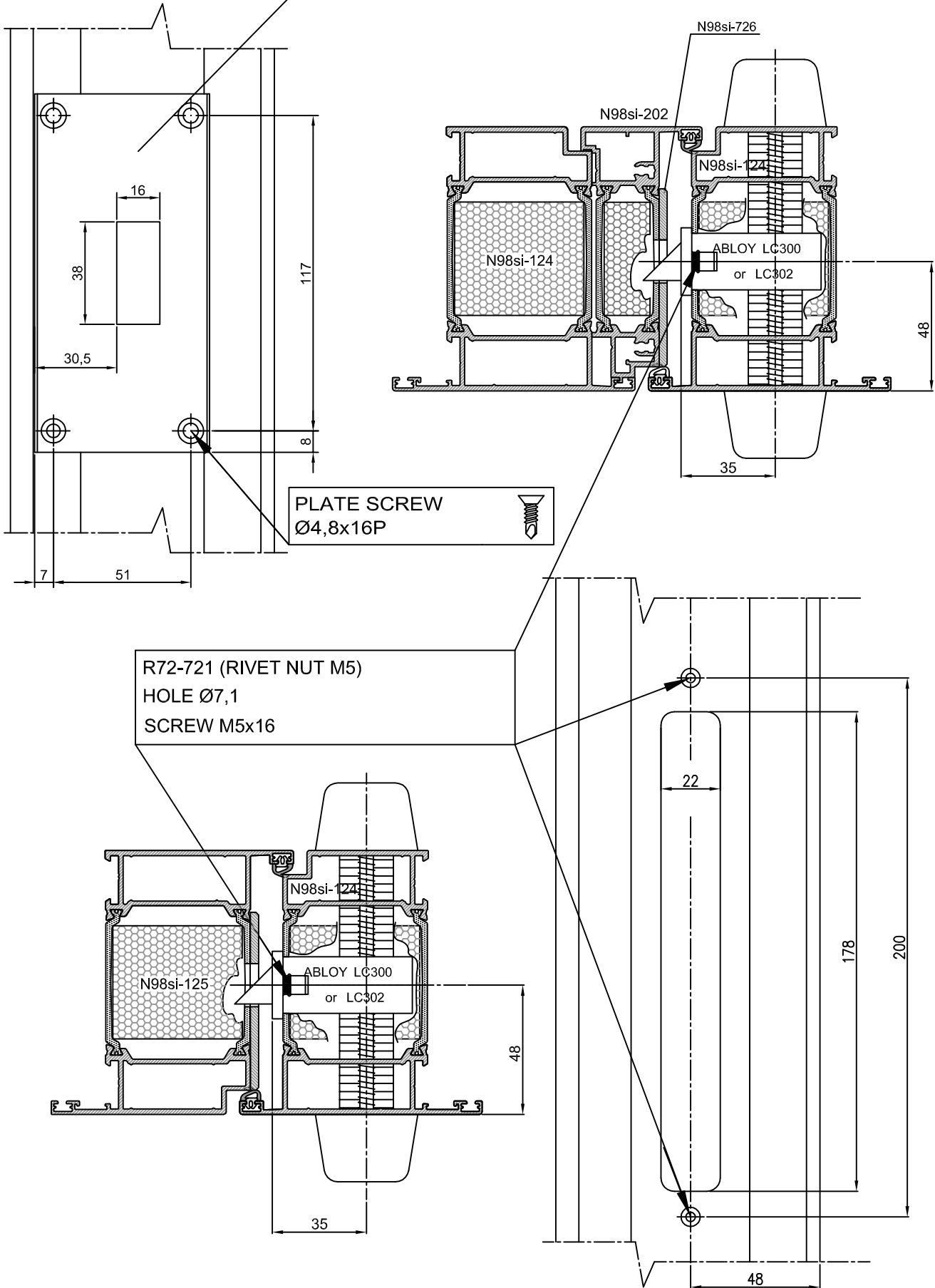
NOKIAN
PROFILES

N98si

Door sash's corner screw connection



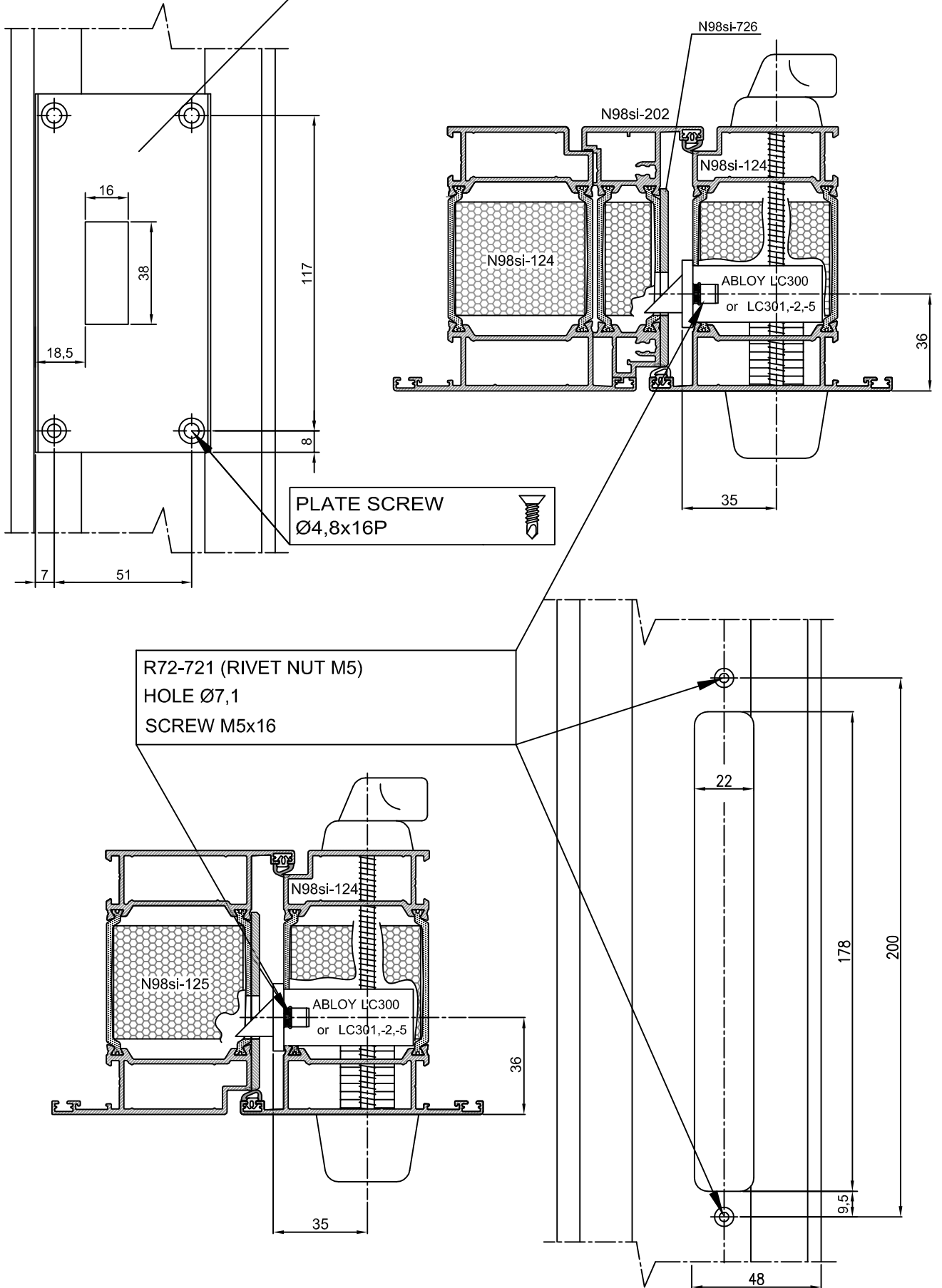
LOCK COUNTERPLATE N98si-726



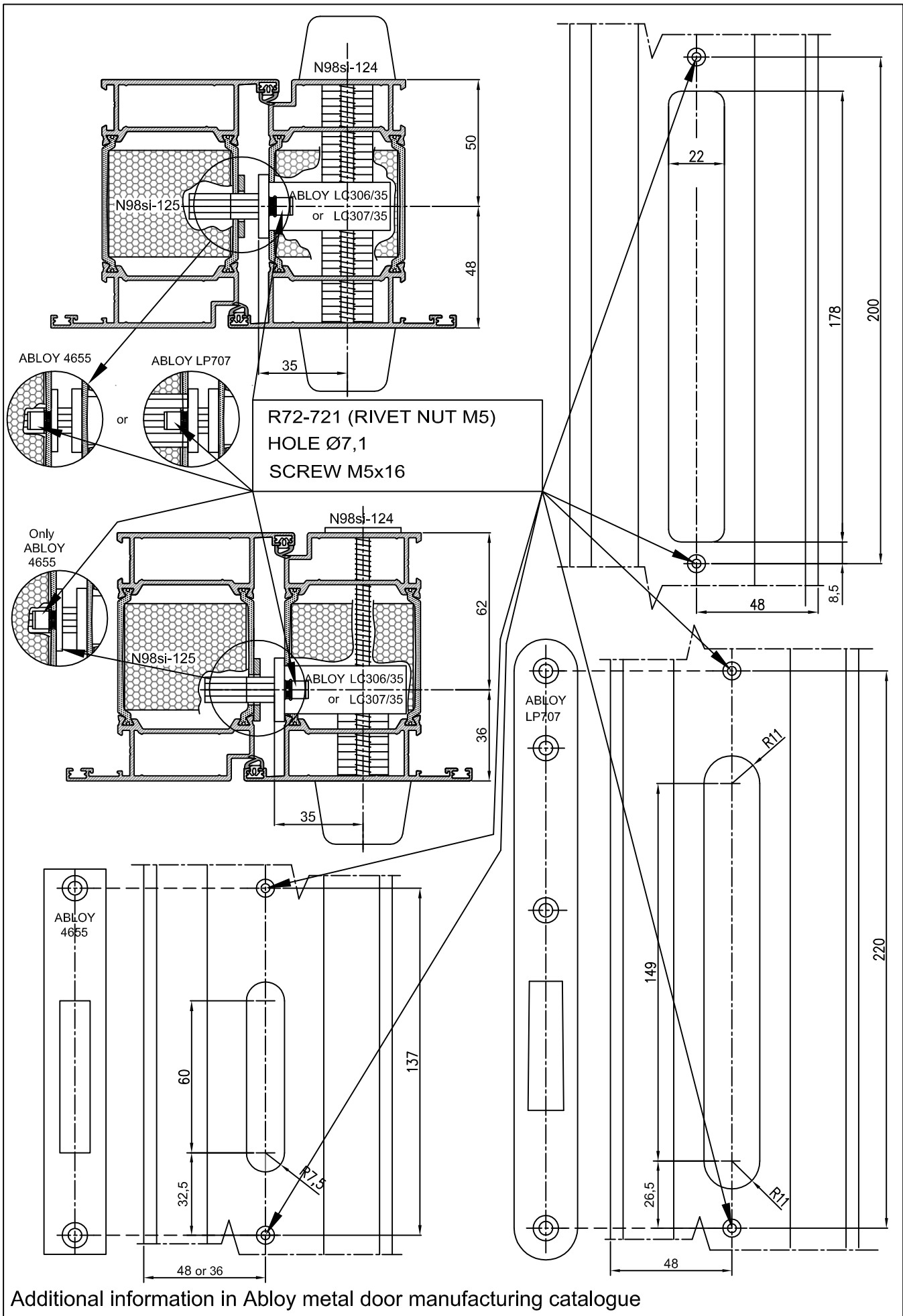
Additional information in Abloy metal door manufacturing catalogue

01.04.2016

LOCK COUNTERPLATE N98si-726



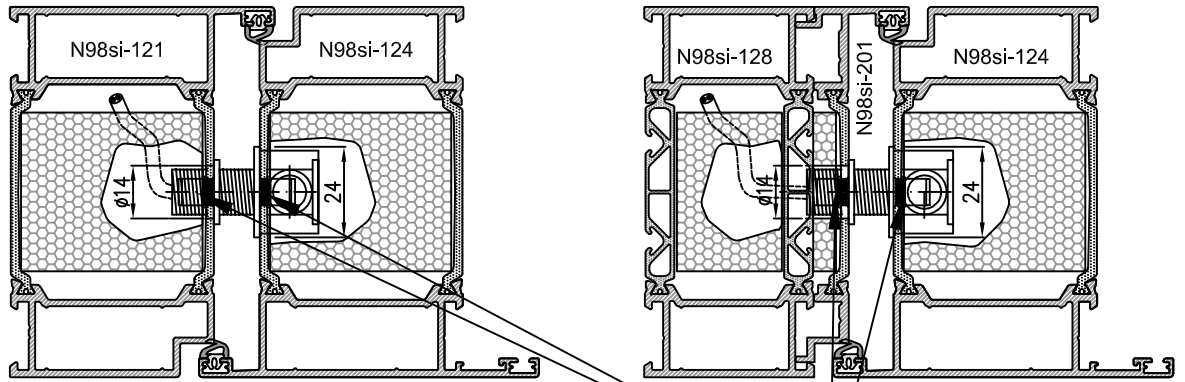
Additional information in Abloy metal door manufacturing catalogue



Additional information in Abloy metal door manufacturing catalogue

01.04.2016

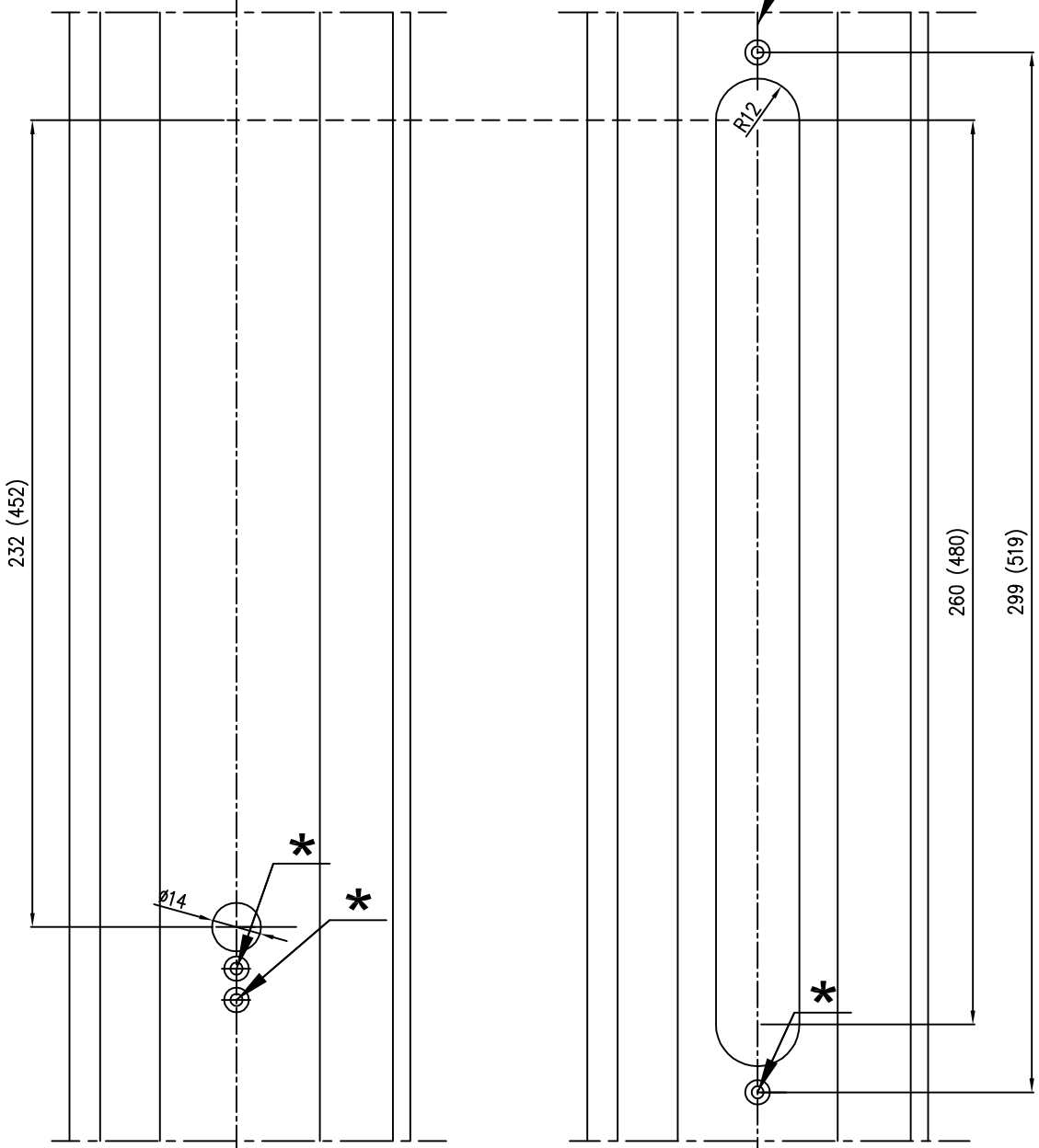
Lead cover ABLOY EA280 (EA281)



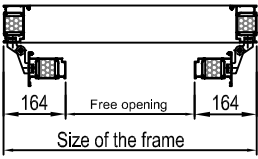
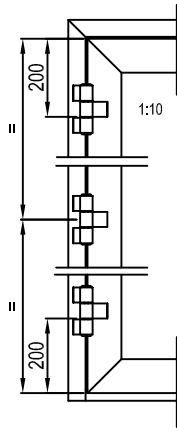
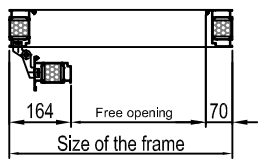
* R72-721 (RIVET NUT M5)
HOLE Ø7,1
SCREW M5x16

Правае

Завпра *



Additional information in Abloy metal door manufacturing catalogue



H	L														
	900	1000	1050	1100	1150	1200	1250	1300	1400	1500	1600	1700	1800	1900	2000
4000	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
3900	•	•	•	•	•	•	•	•	•	•	•	•	•	•	5
3800	•	•	•	•	•	•	•	•	•	•	•	•	•	•	10
3700	•	•	•	•	•	•	•	•	•	•	•	•	•	•	5 15
3600	•	•	•	•	•	•	•	•	•	•	•	•	•	•	11 20
3500	•	•	•	•	•	•	•	•	•	•	•	•	•	•	6 16 25
3400	•	•	•	•	•	•	•	•	•	•	•	•	•	•	11 21 30
3300	•	•	•	•	•	•	•	•	•	•	•	•	•	•	6 17 26 35
3200	•	•	•	•	•	•	•	•	•	•	•	•	•	•	12 22 32 40
3100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	6 18 28 37 45
3000	•	•	•	•	•	•	•	•	•	•	•	•	•	•	13 24 33 42 50
2900	•	•	•	•	•	•	•	•	•	•	•	•	•	•	7 19 29 39 47 55
2800	•	•	•	•	•	•	•	•	•	•	•	•	•	•	13 25 35 44 53 60
2700	•	•	•	•	•	•	•	•	•	•	•	•	•	•	7 20 31 41 50 58 65
2600	•	•	•	•	•	•	•	•	•	•	•	•	•	•	14 27 38 47 56 63 70
2500	•	•	•	•	•	•	•	•	•	•	•	•	•	•	8 21 33 44 53 61 68 X
2400	•	•	•	•	•	•	•	•	•	•	•	•	•	•	8 15 29 40 50 59 67 X X
2300	•	•	•	•	•	•	•	•	•	•	•	•	•	•	8 16 23 36 47 56 65 X X X
2200	•	•	•	•	•	•	•	•	•	•	•	•	•	•	9 17 24 31 43 53 63 X X X X
2100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	9 17 25 32 38 50 60 69 X X X X
2000	•	•	•	•	•	•	•	•	•	•	•	•	•	•	10 18 26 33 40 46 57 67 X X X X X

Table 1

X= Not useful
 17 (or other number)= percentage which increases your sash weight
 H= Door leaf height
 L= Door leaf width

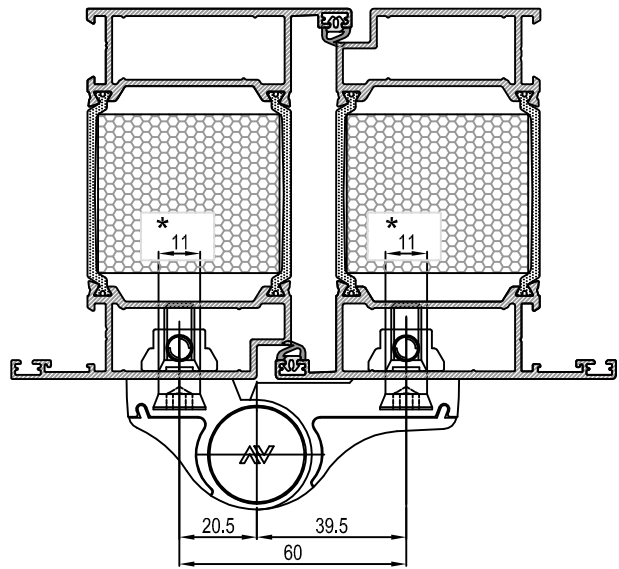
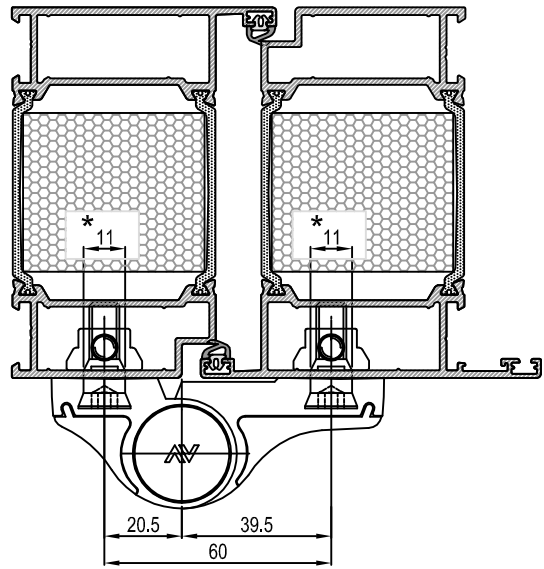
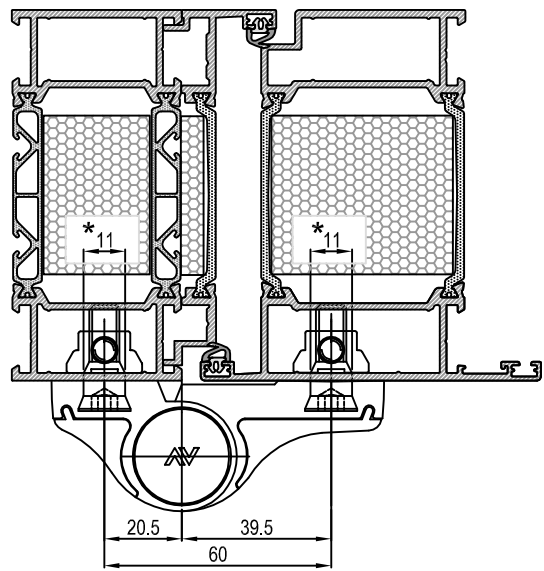
First calculate the leaf weight. Then check if you need an additional weight adding with a table 1 percentages. With the final weight you can define the suitable hinges using the table 2. Door closers increases the loads on the hinges and their wear. Wind-breaking door closers are loading the hinges more. In this case the total door sash's weight must be increased on 75%. If there is no wind-break in a door closer - weight must be increased on 20 %.

Table 2

Hinge	2 parts	3 parts
R72-724-2 R72-724-3	160 kg	180 kg
R72-722 R72-723	120 kg	140 kg

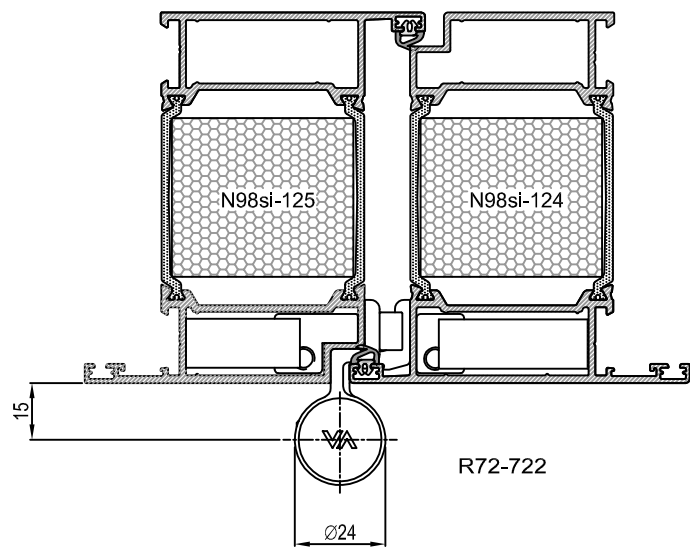
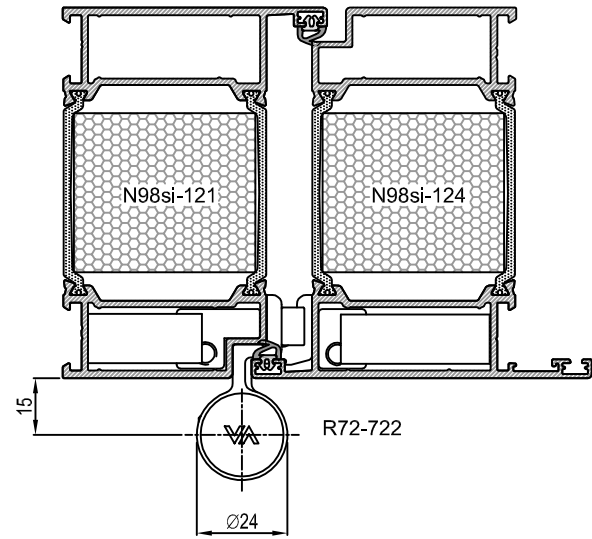
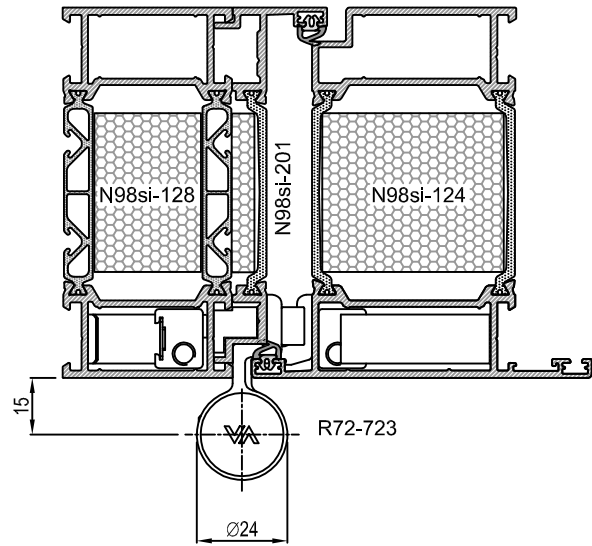
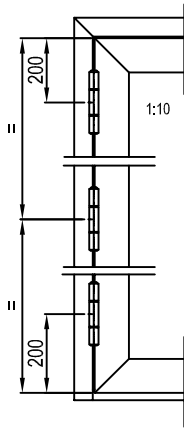
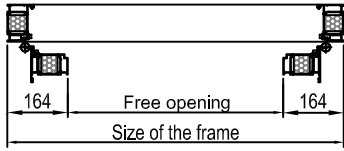
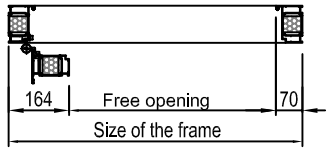
height of the door leaf > 2,1m-- 3 hinges

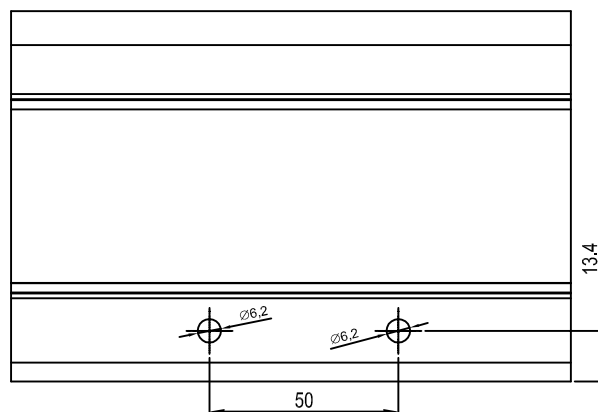
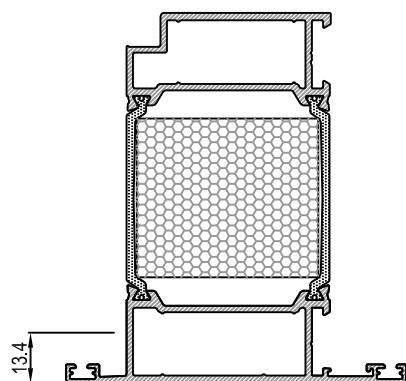
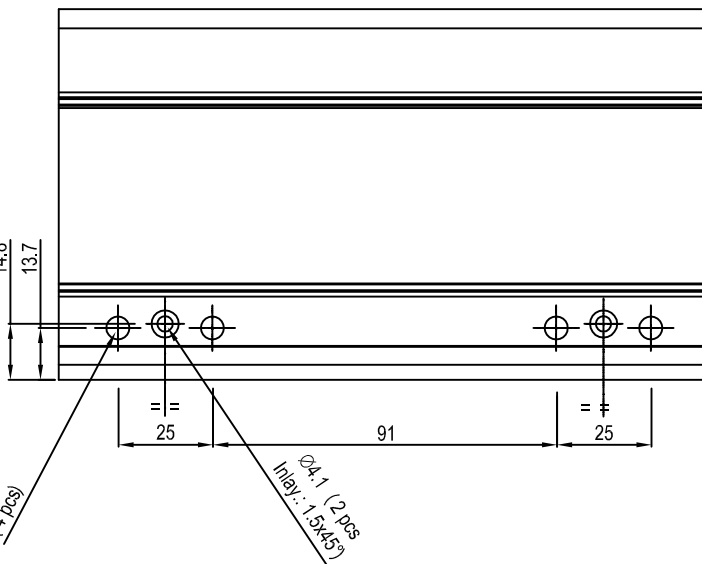
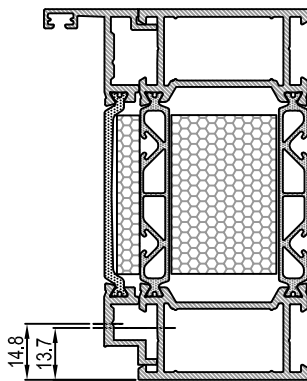
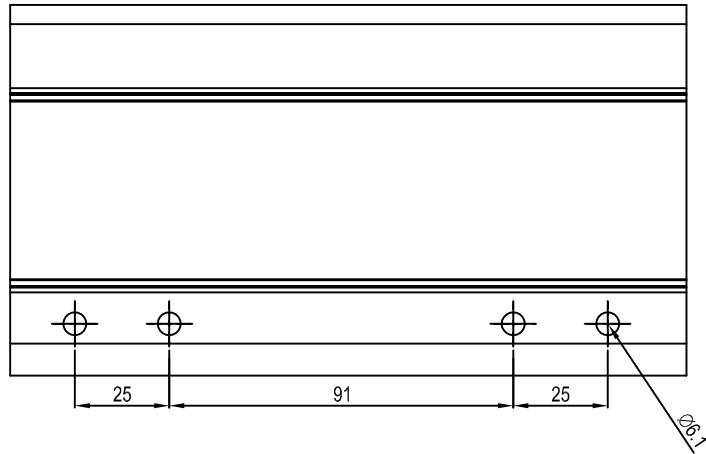
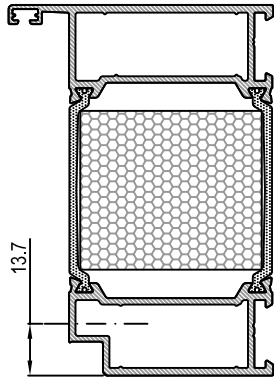
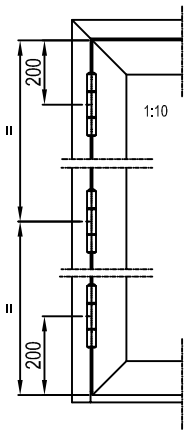
Drill jigs are available



Hinge screws see page 2.39

*** ATTENTION** Drill the holes through the both walls





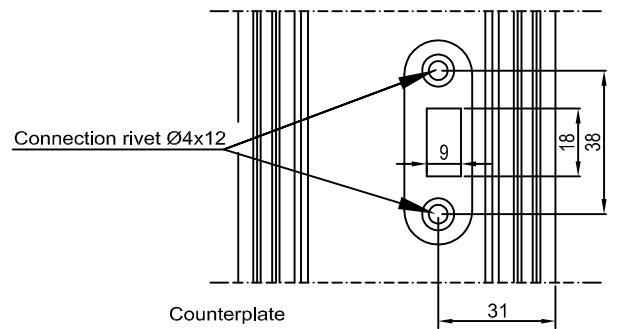
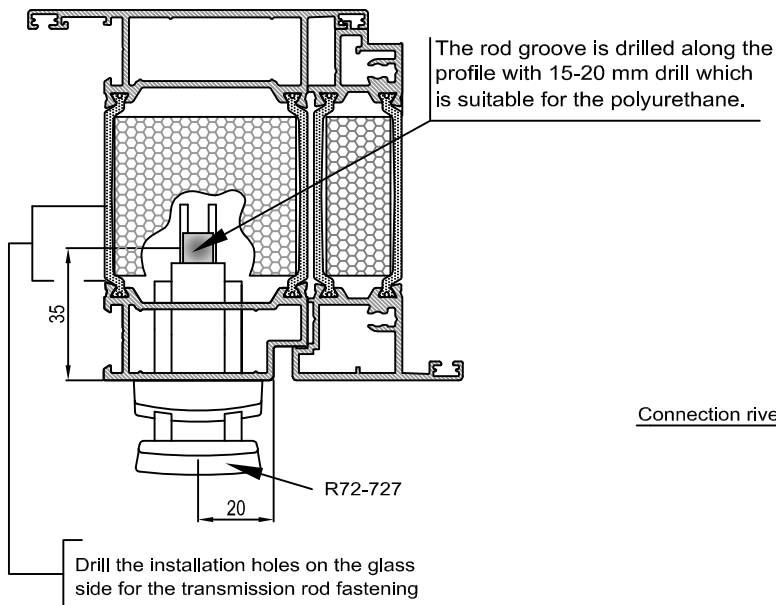
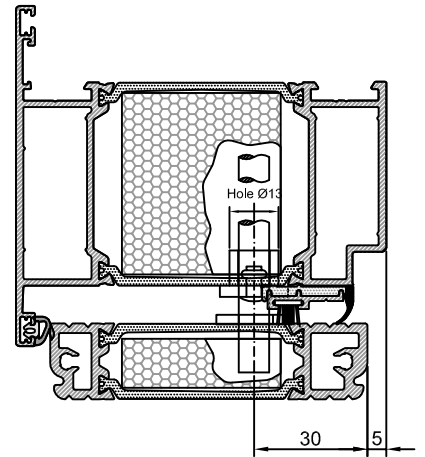
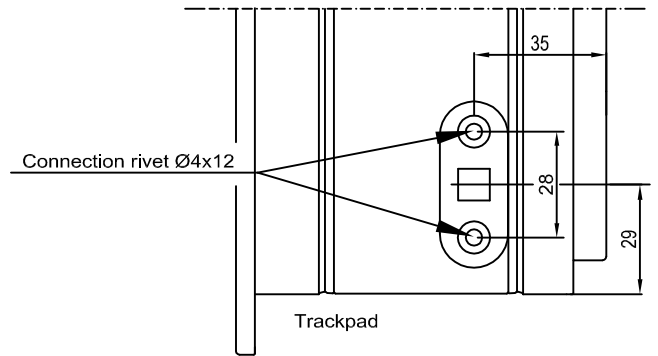
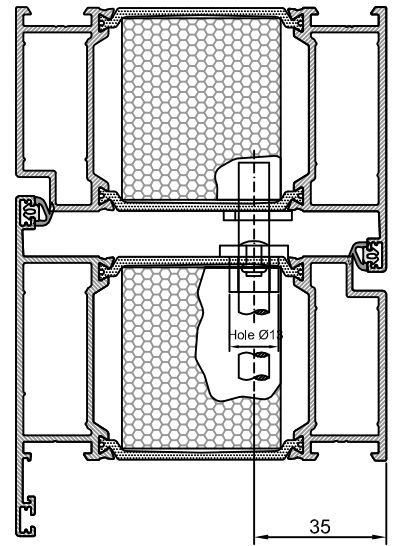
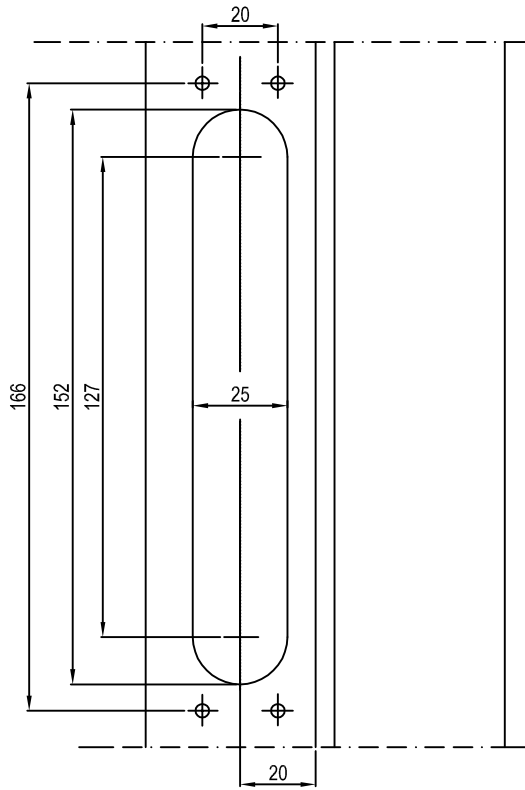
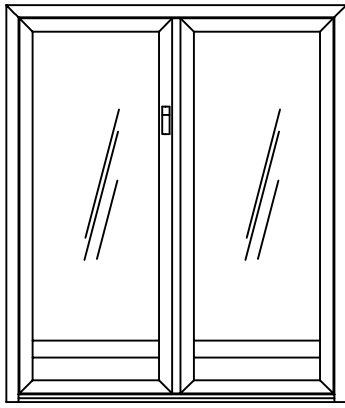
Drill jigs are available

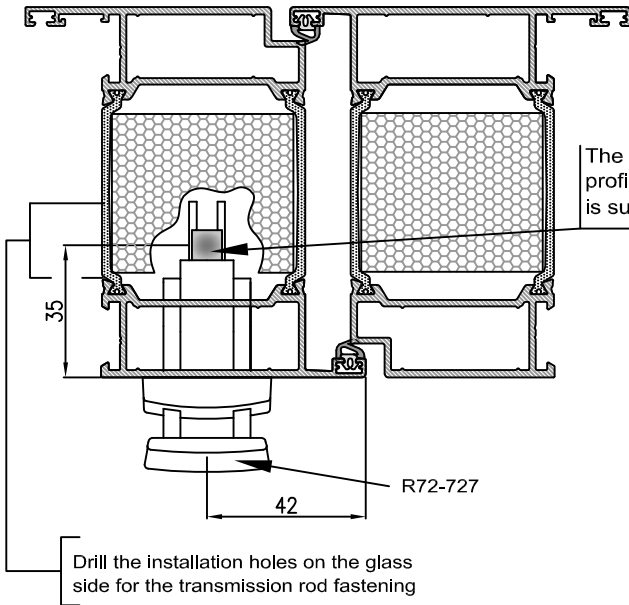
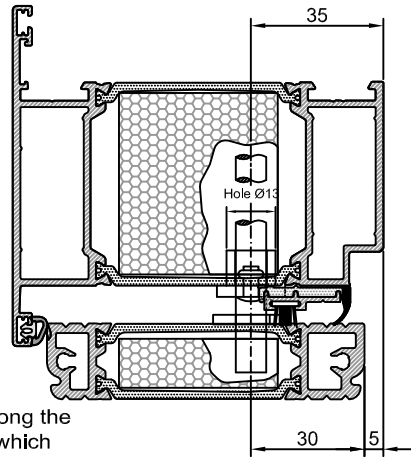
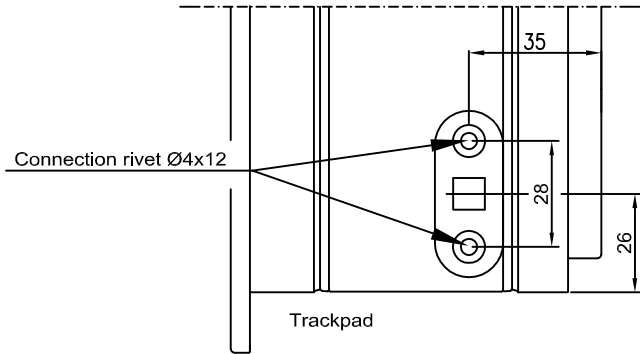
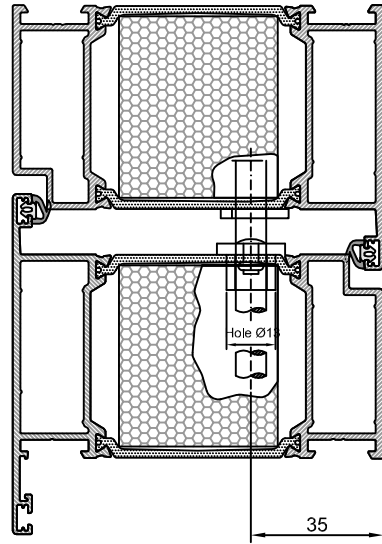
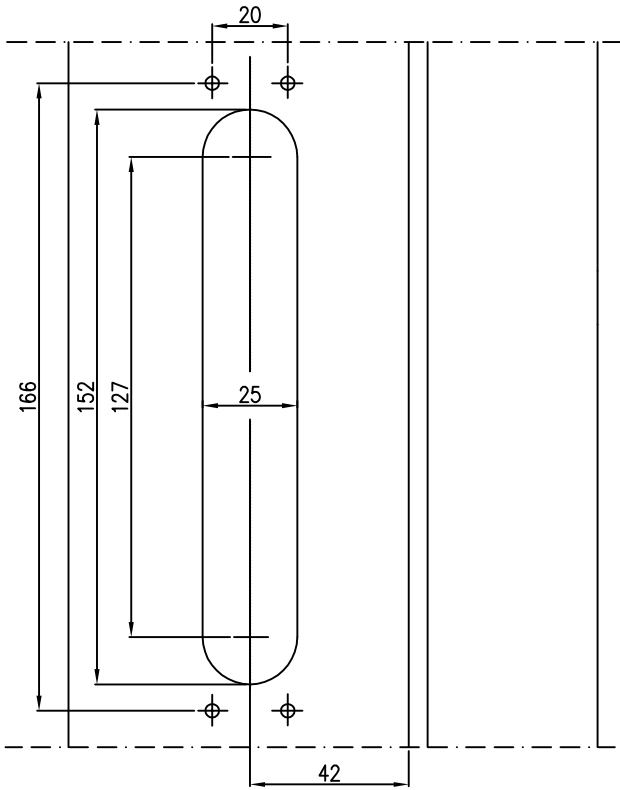
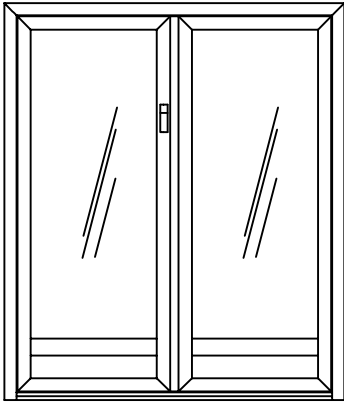
01.04.2016

2.28 NOKIAN
PROFILES

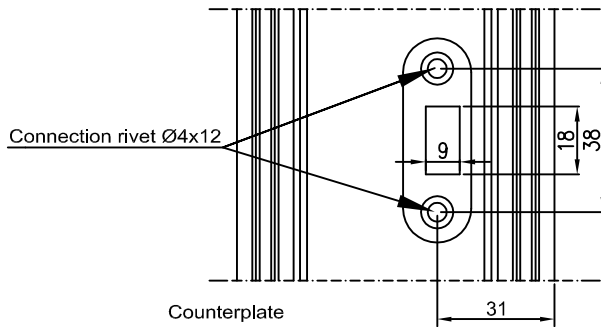
N98si

Machining for butt-hinges





The rod groove is drilled along the profile with 15-20 mm drill which is suitable for the polyurethane.

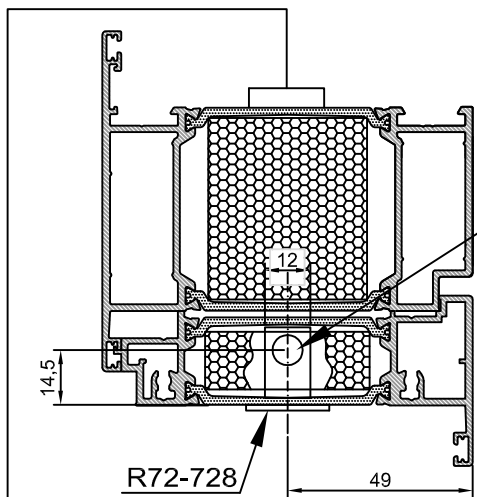
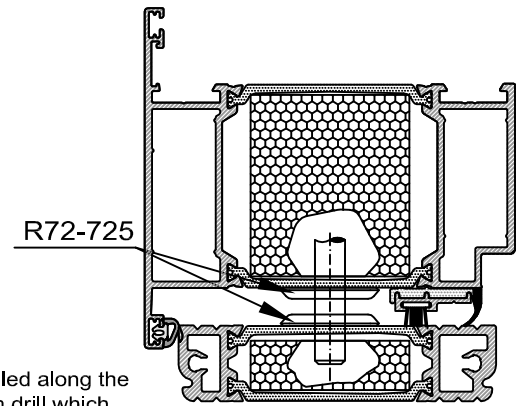
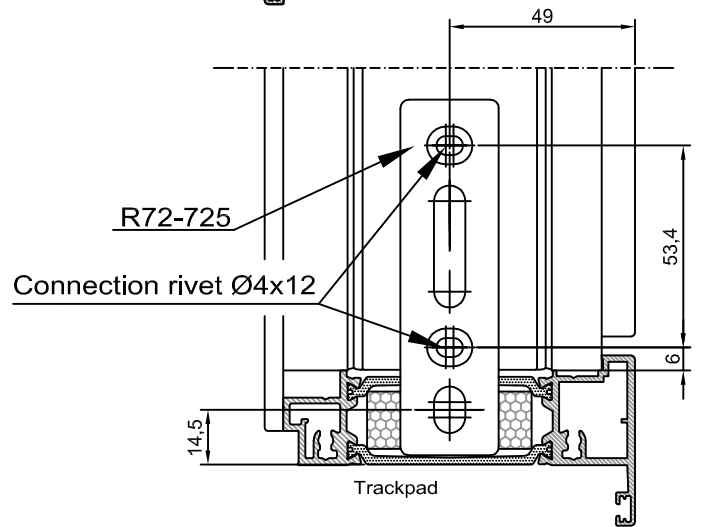
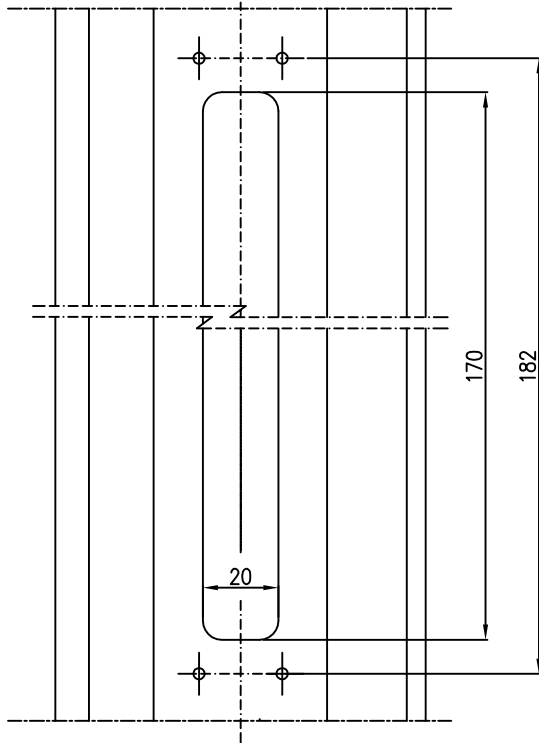
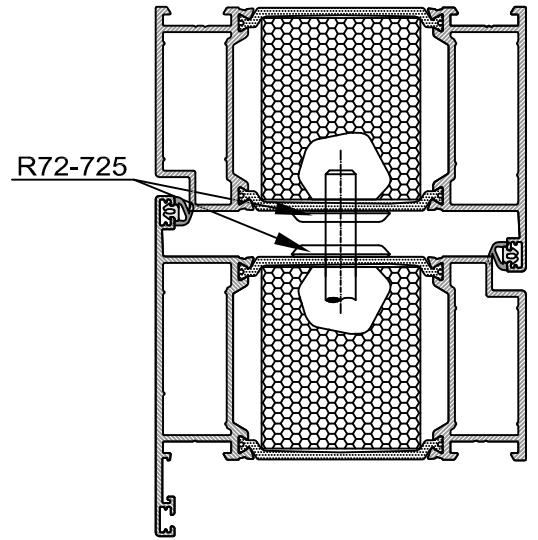
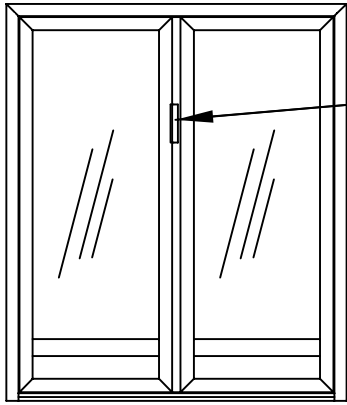


01.04.2016

2.30 NOKIAN PROFILES

N98si

Door shutter fastening in case of N98si-125 profile

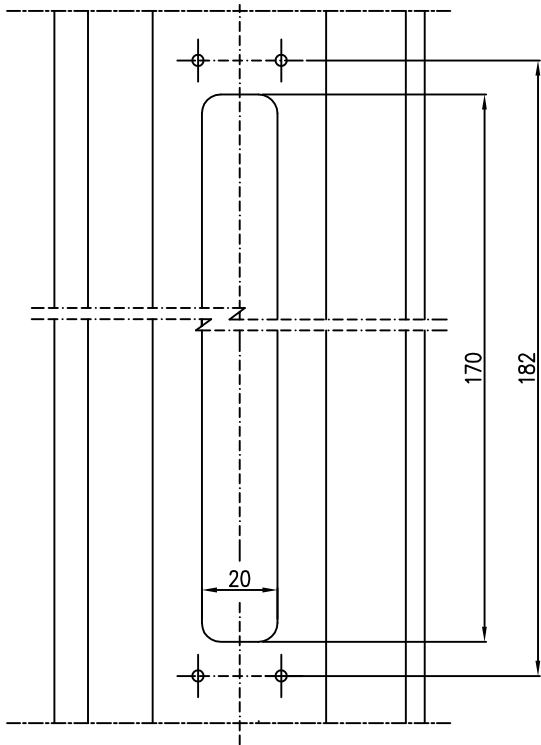
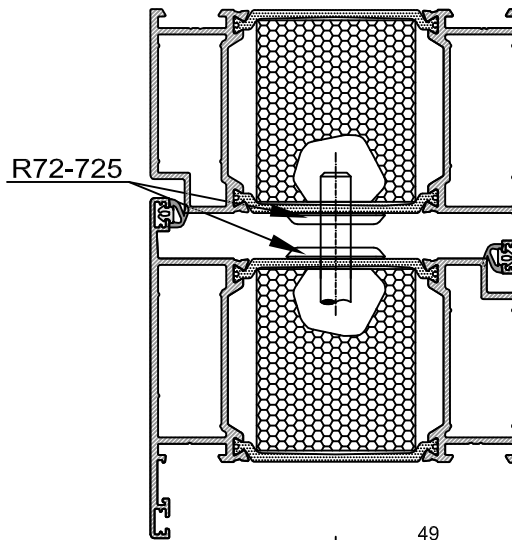
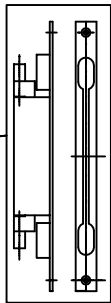
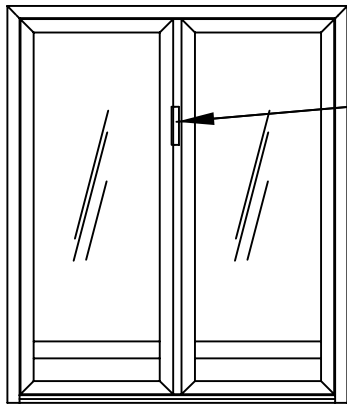


The rod groove is drilled along the profile with 15-20 mm drill which is suitable for the polyurethane.

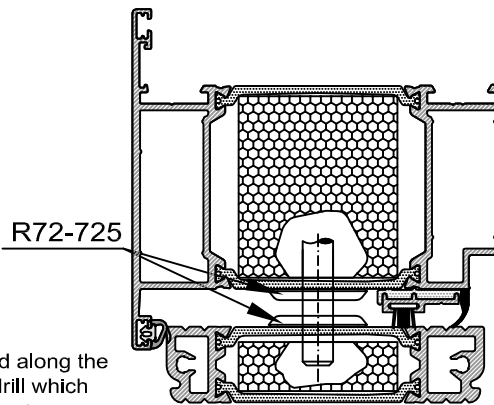
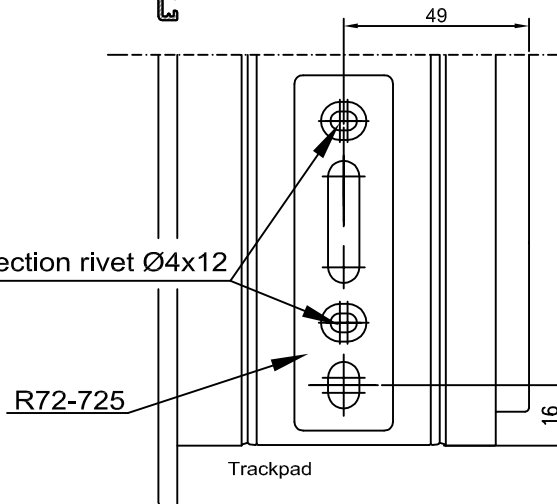
Drill the installation holes on the glass side for the transmission rod fastening

Connection rivet Ø4x12

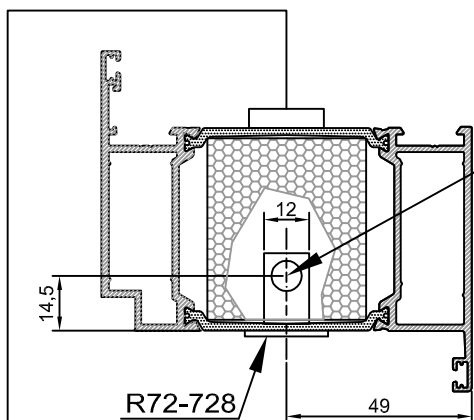
Counterplate on the treshold



Connection rivet $\text{Ø}4 \times 12$



R72-725



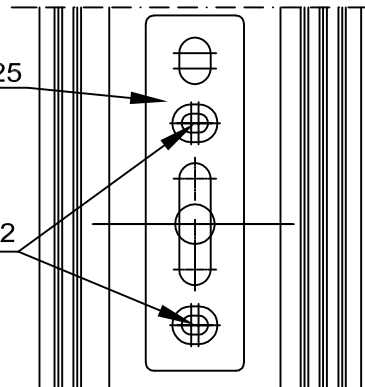
The rod groove is drilled along the profile with 15-20 mm drill which is suitable for the polyurethane.

Drill the installation holes on the glass side for the transmission rod fastening

Connection rivet $\text{Ø}4 \times 12$

Counterplate on the threshold

R72-725

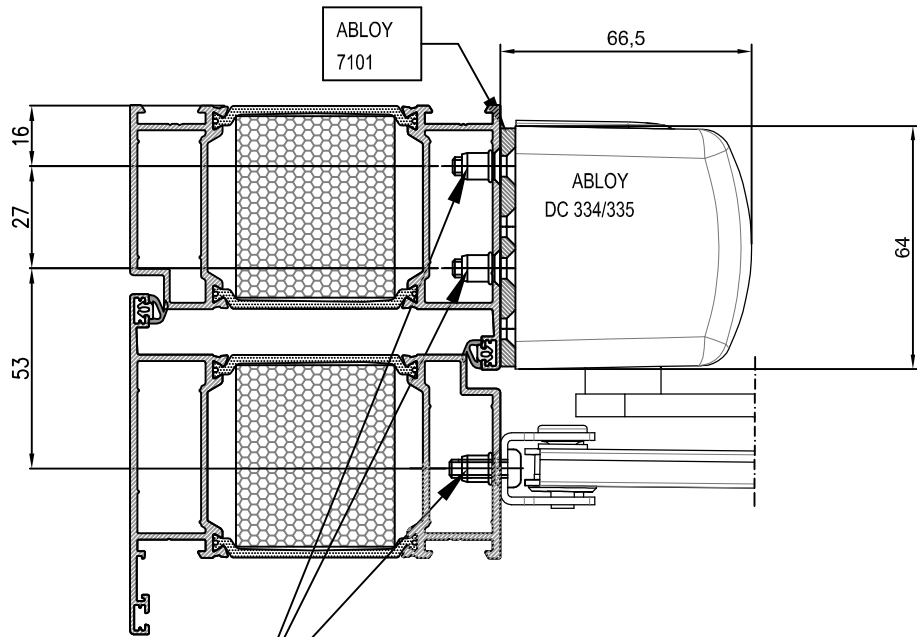


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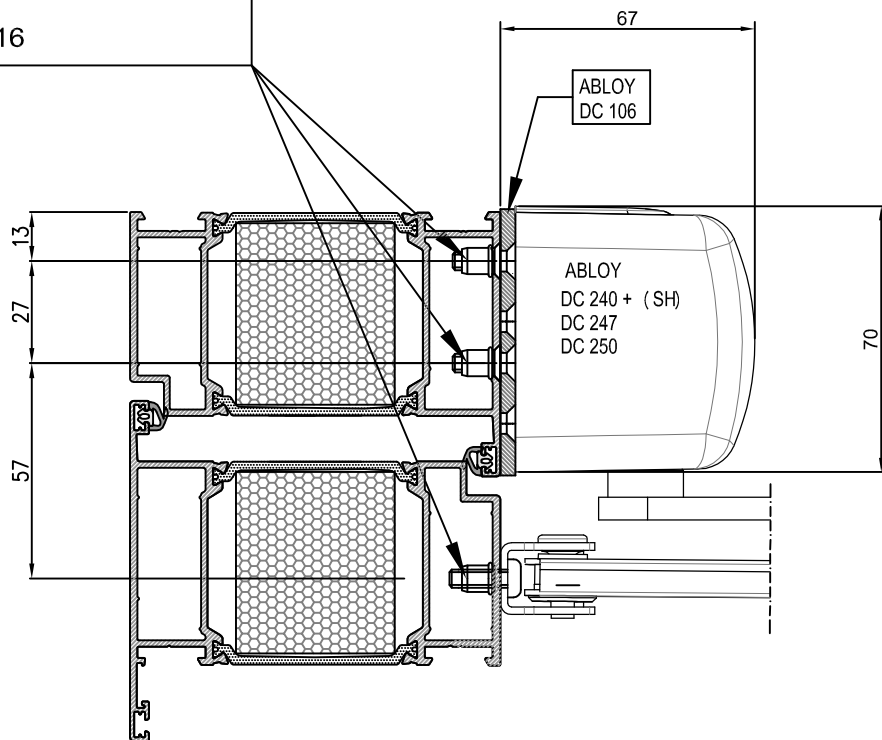
2.32 NOKIAN PROFILES

N98si

Lever bolt fastening in case of N98si-125 profile

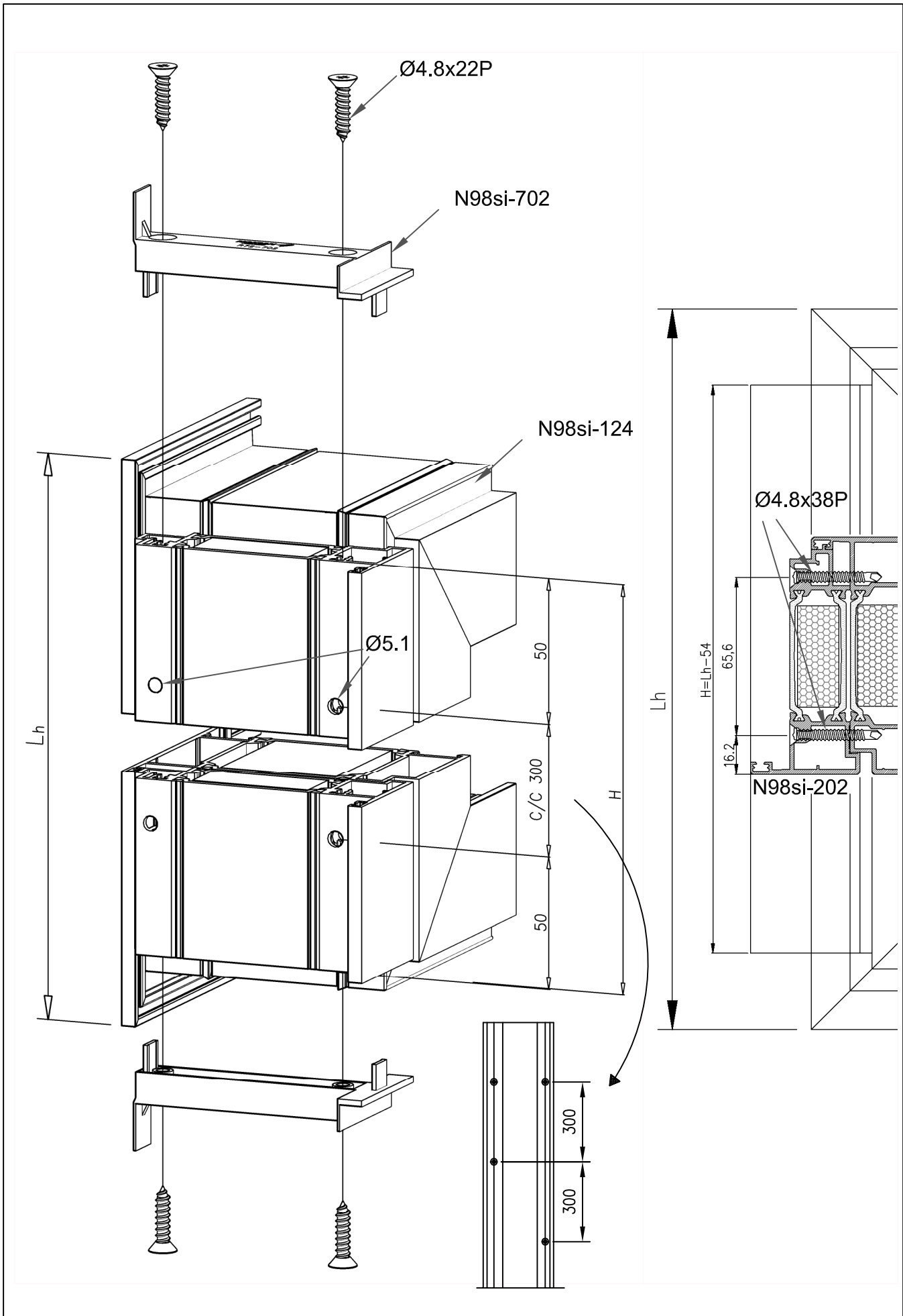


R72-721 (RIVET NUT M5)
HOLE Ø7,1
BOLT M5x16

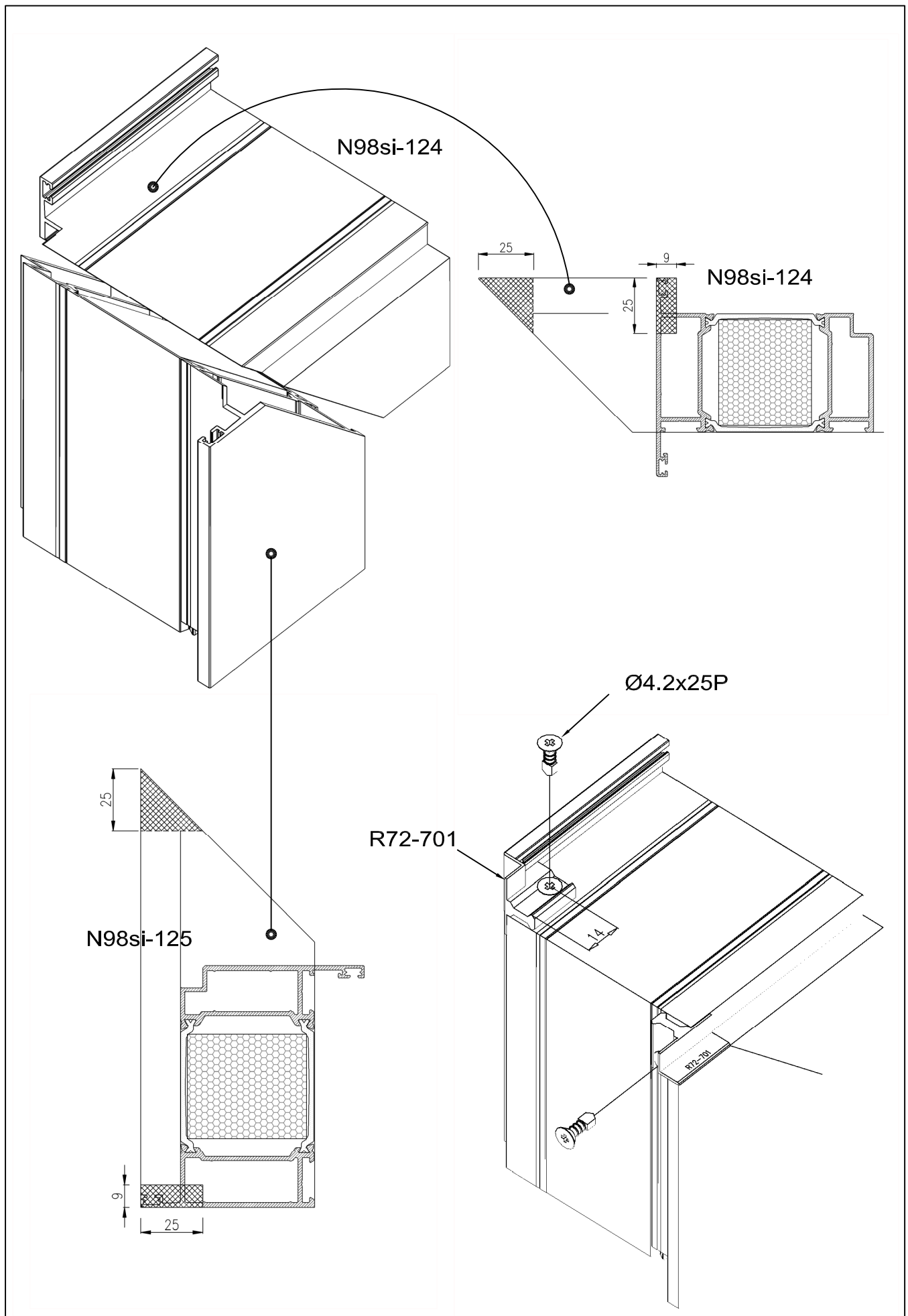


All OUTSIDE OPENABLE DOORS must be equipped with the door closers with a wind-brake function

Additional information in Abloy metal door manufacturing catalogue



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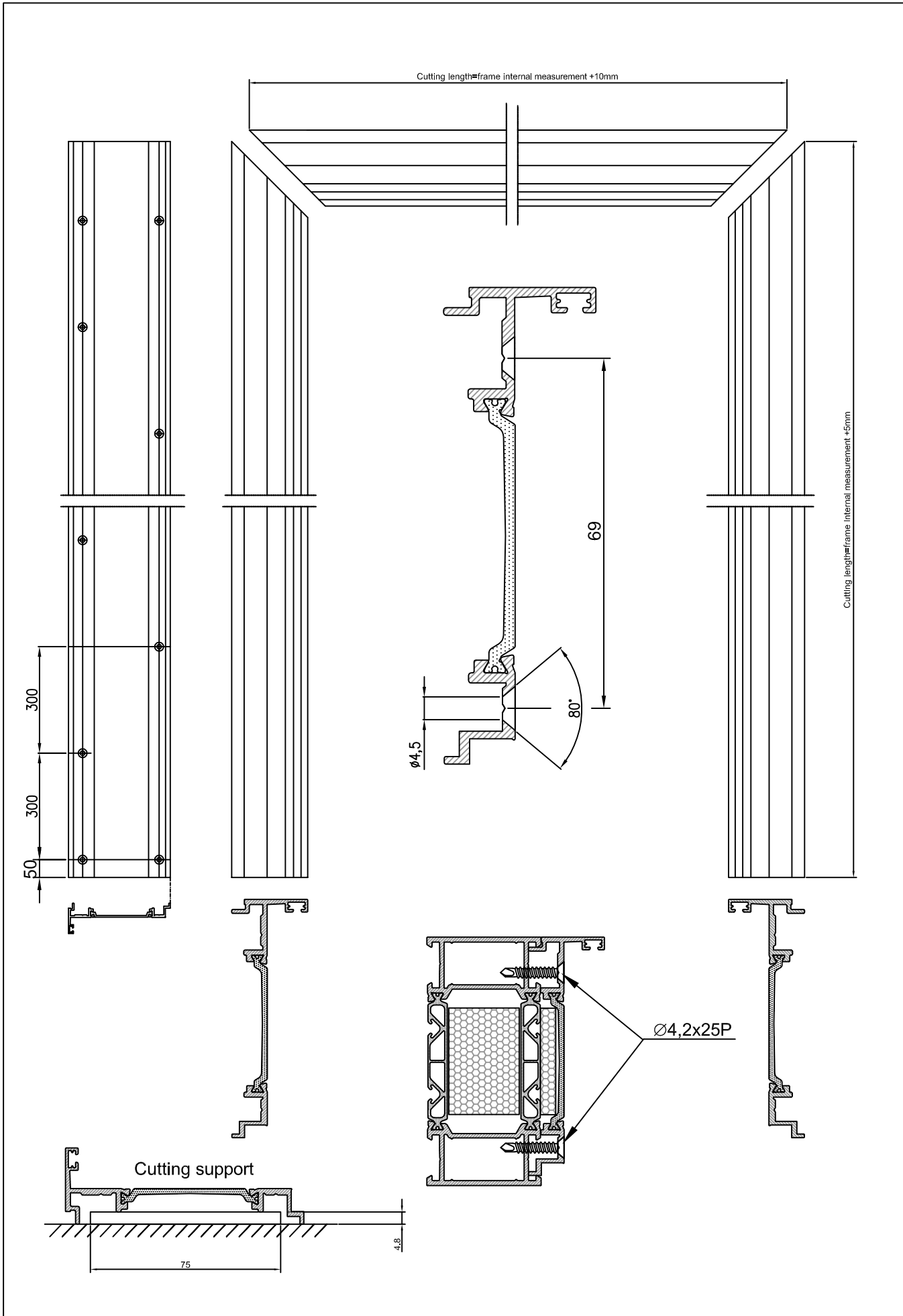
N98si

NOKIAN
PROFILES

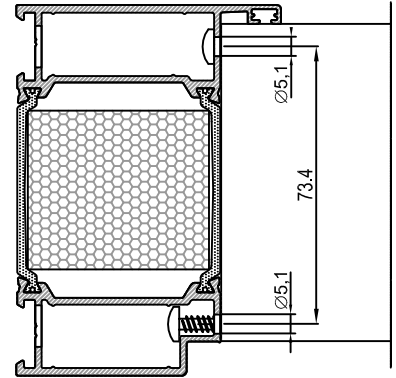
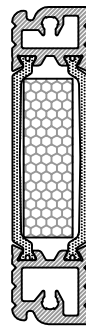
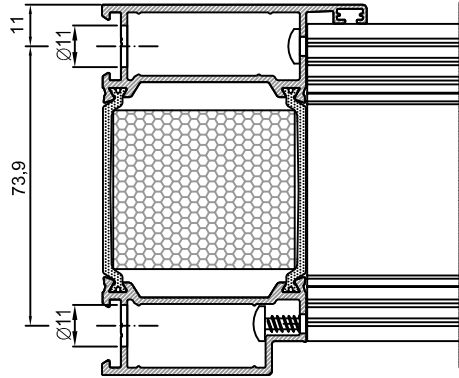
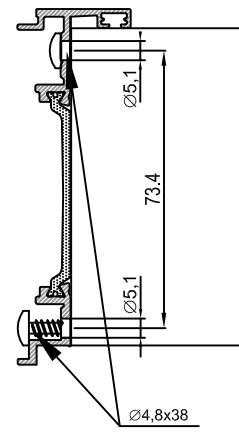
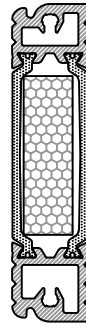
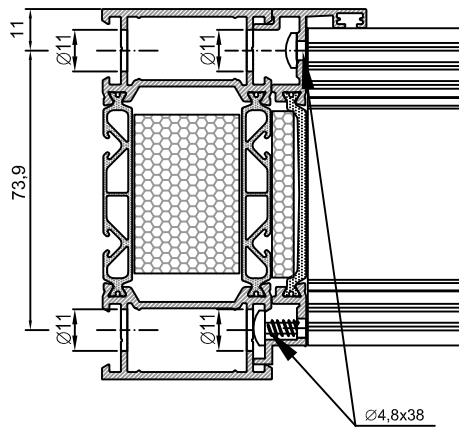
01.04.2016

2.35

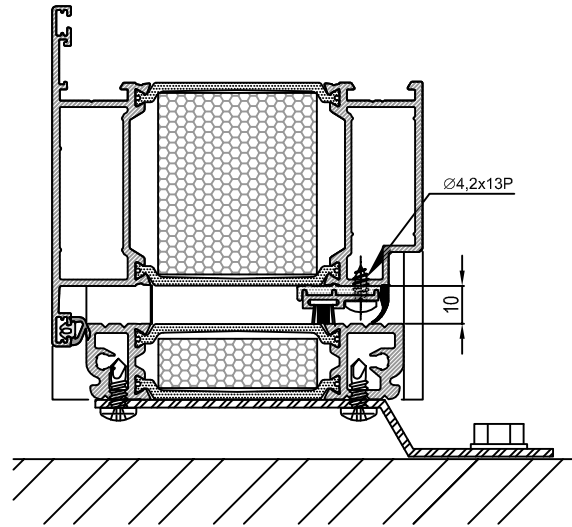
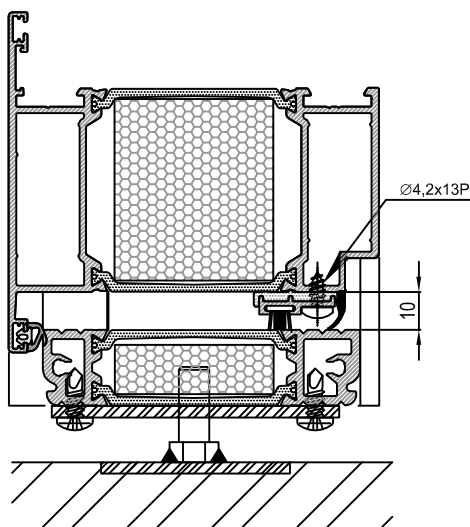
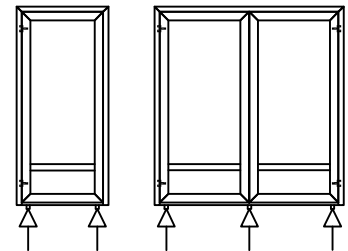
N98si-124/125 machinings and installation of R72-701



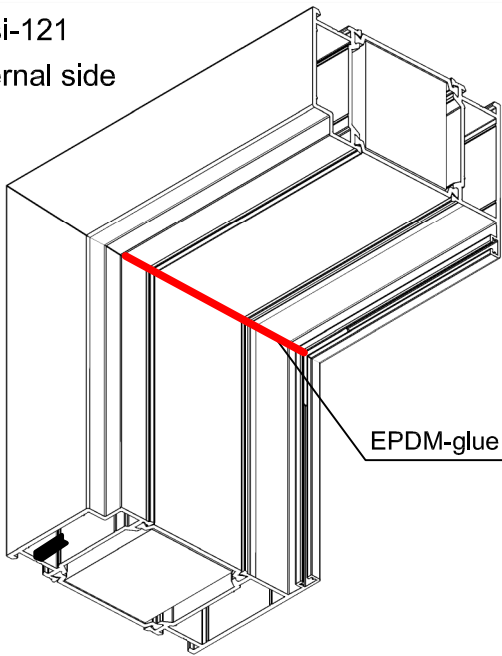
01.04.2016



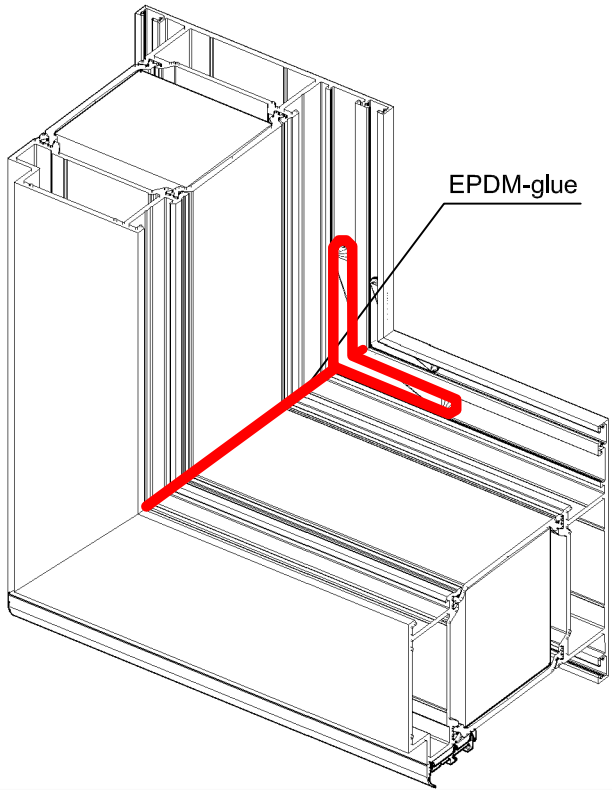
Principles of the treshold fastening
The treshold must be supported on the floor



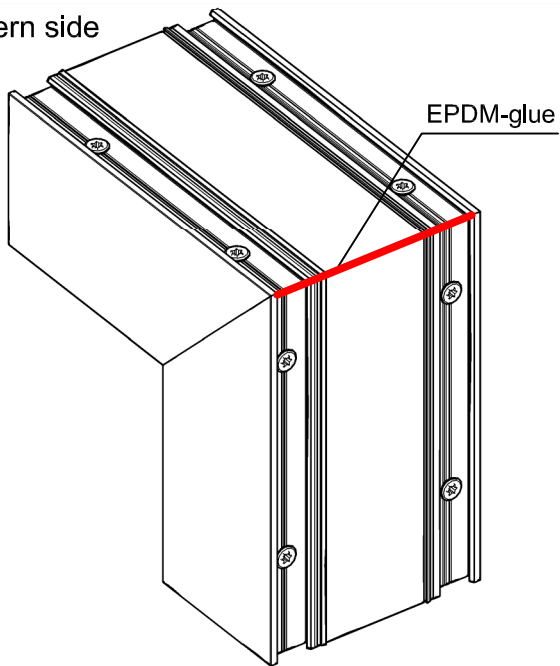
N98si-121
-internal side



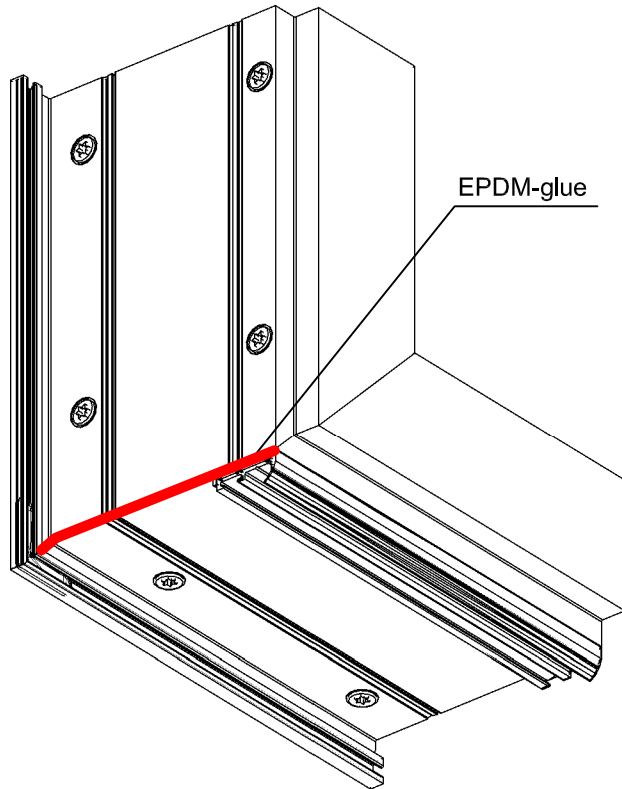
N98si-124
-internal side



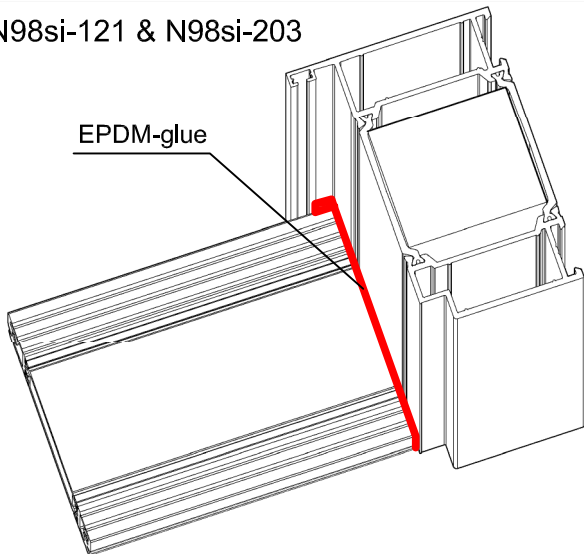
-outern side



-outern side

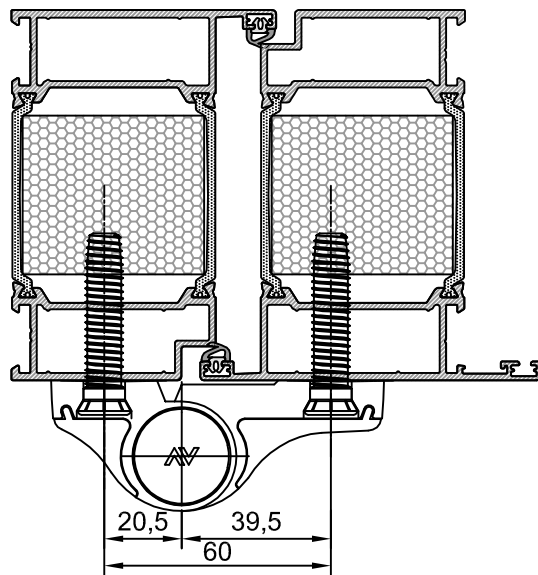
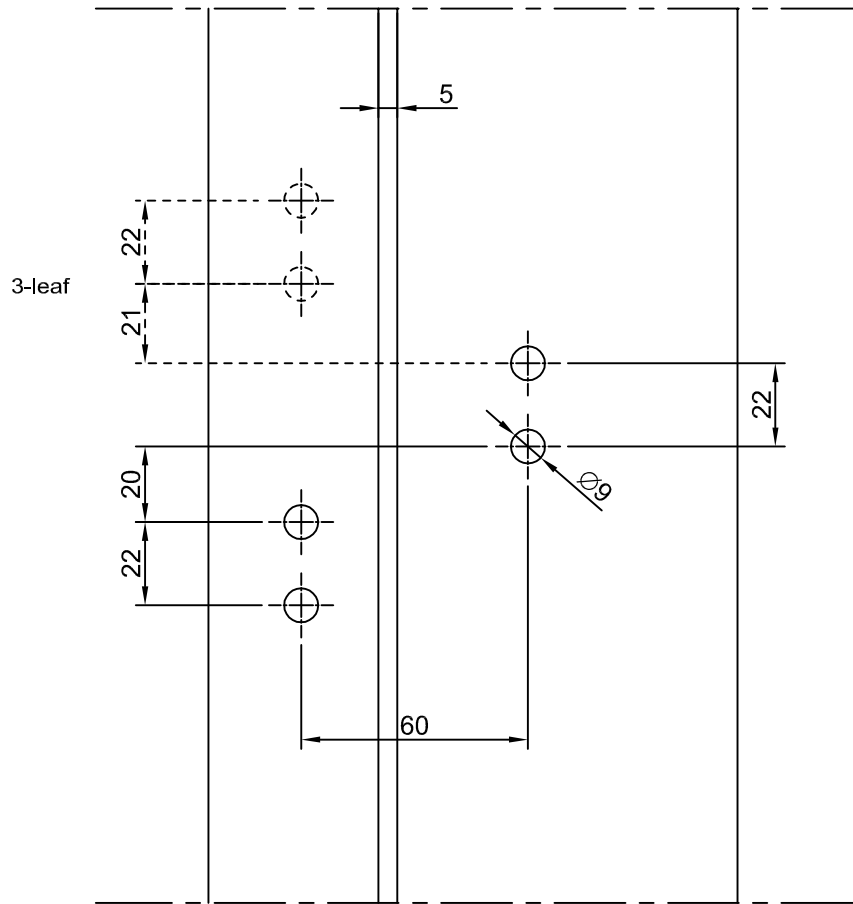


N98si-121 & N98si-203



HUOM: The seam should not be put on visible surfaces or places where it can make difficulties for gasket installation

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ATTENTION Drill the holes through the both walls

Drilling jigs are available

N98si

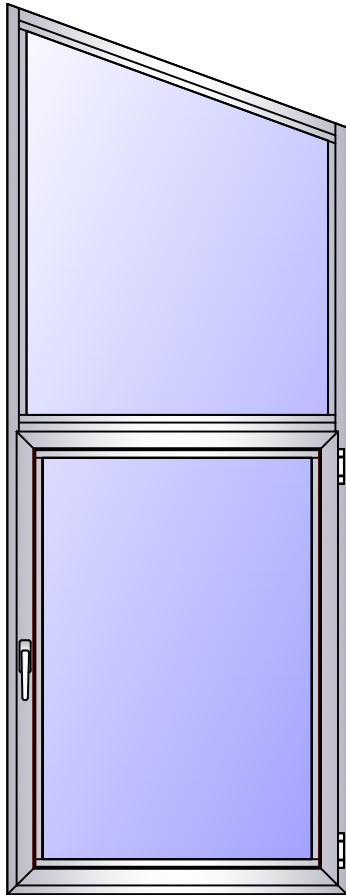
Fastening hinge screws 1145.721/723

NOKIAN
PROFILES

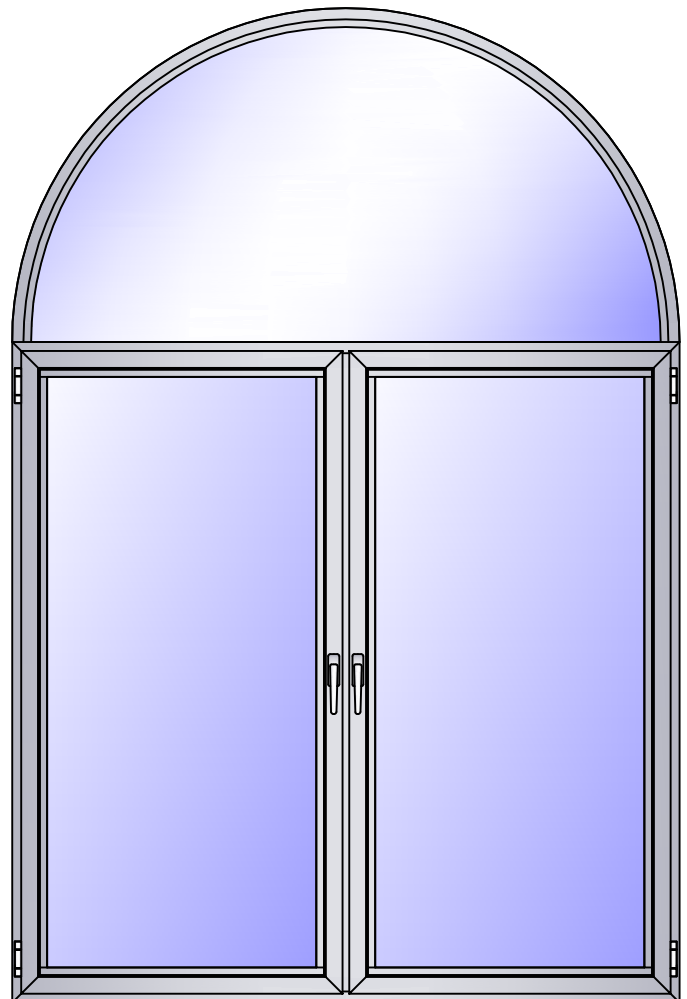
01.04.2016

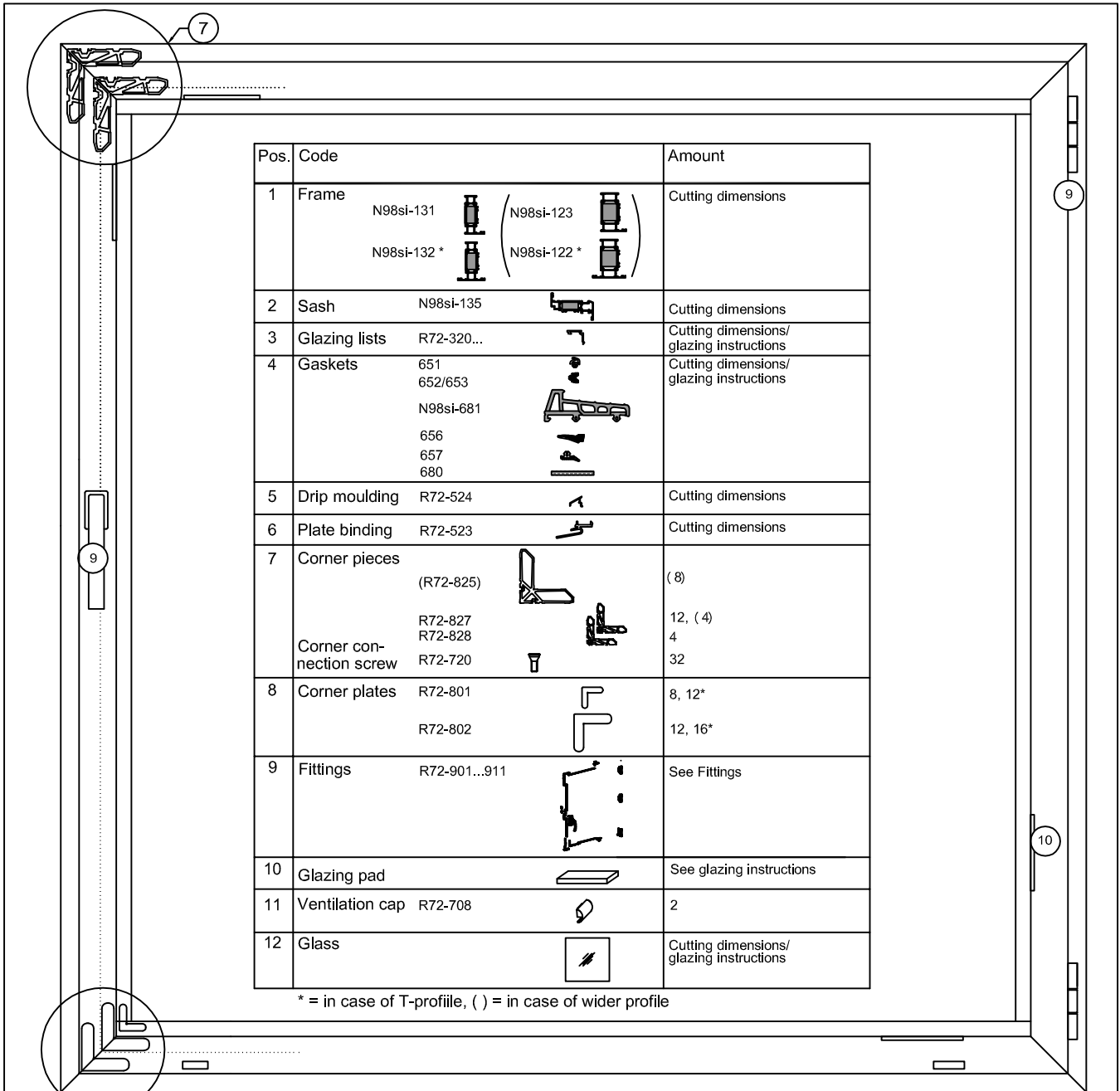
2.39

3. Windows



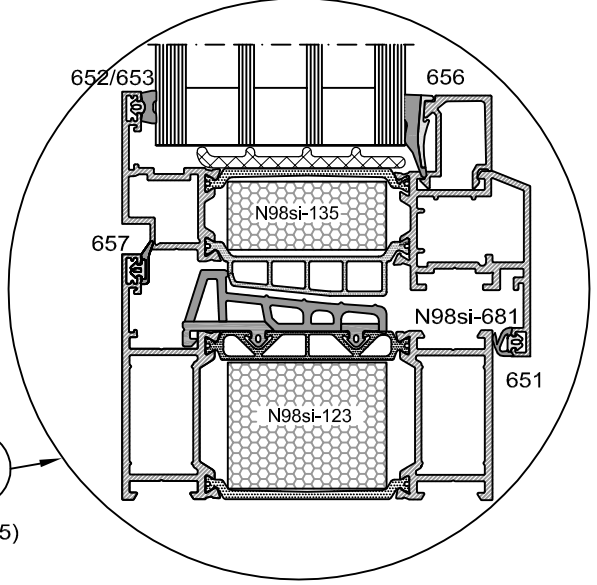
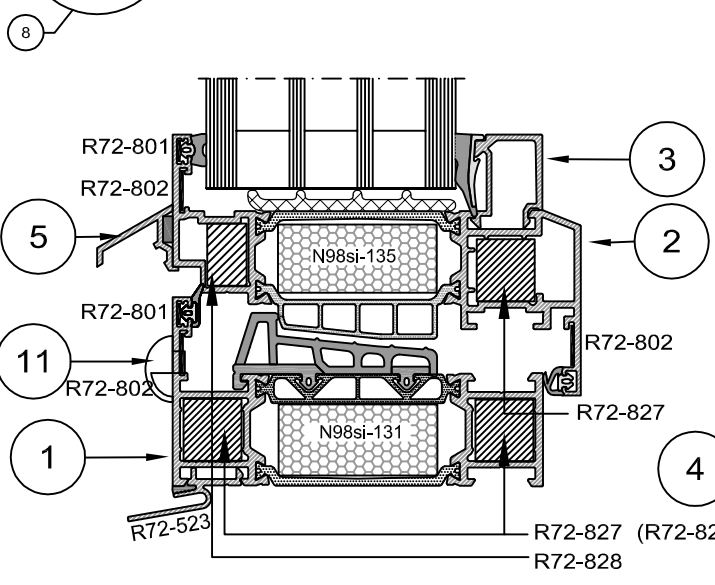
N98s1

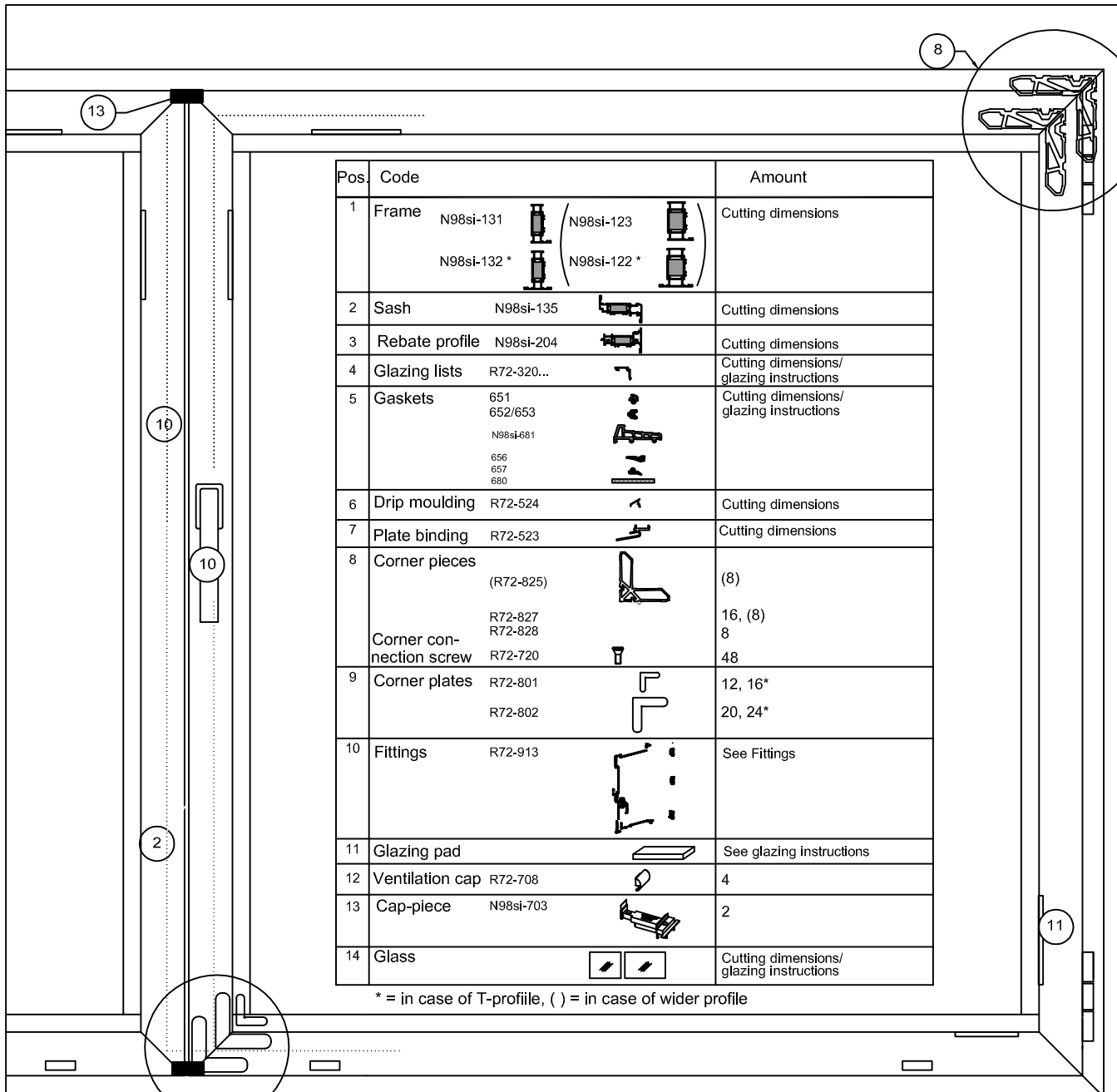




Pos.	Code	Amount
1	Frame N98si-131 N98si-132 * N98si-123 N98si-122 *	Cutting dimensions
2	Sash N98si-135	Cutting dimensions
3	Glazing lists R72-320...	Cutting dimensions/ glazing instructions
4	Gaskets 651 652/653 N98si-681 656 657 680	Cutting dimensions/ glazing instructions
5	Drip moulding R72-524	Cutting dimensions
6	Plate binding R72-523	Cutting dimensions
7	Corner pieces (R72-825) R72-827 R72-828 Corner con- nection screw R72-720	(8) 12, (4) 4 32
8	Corner plates R72-801 R72-802	8, 12* 12, 16*
9	Fittings R72-901...911	See Fittings
10	Glazing pad	See glazing instructions
11	Ventilation cap R72-708	2
12	Glass	Cutting dimensions/ glazing instructions

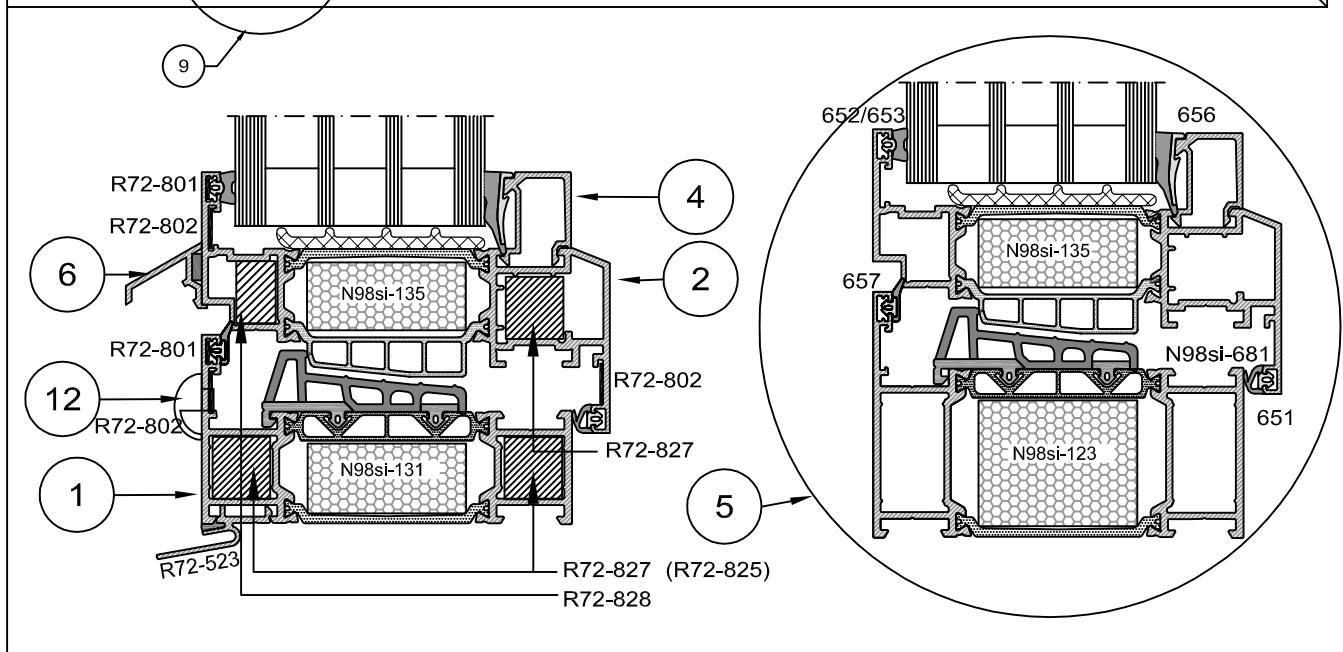
* = in case of T-profile, () = in case of wider profile



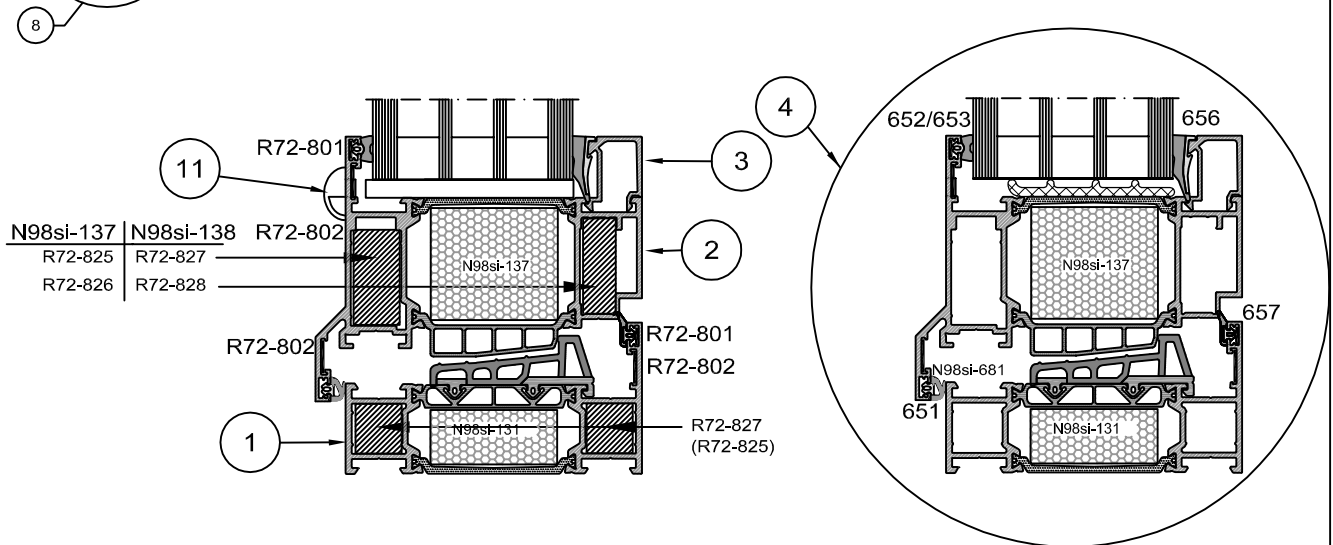
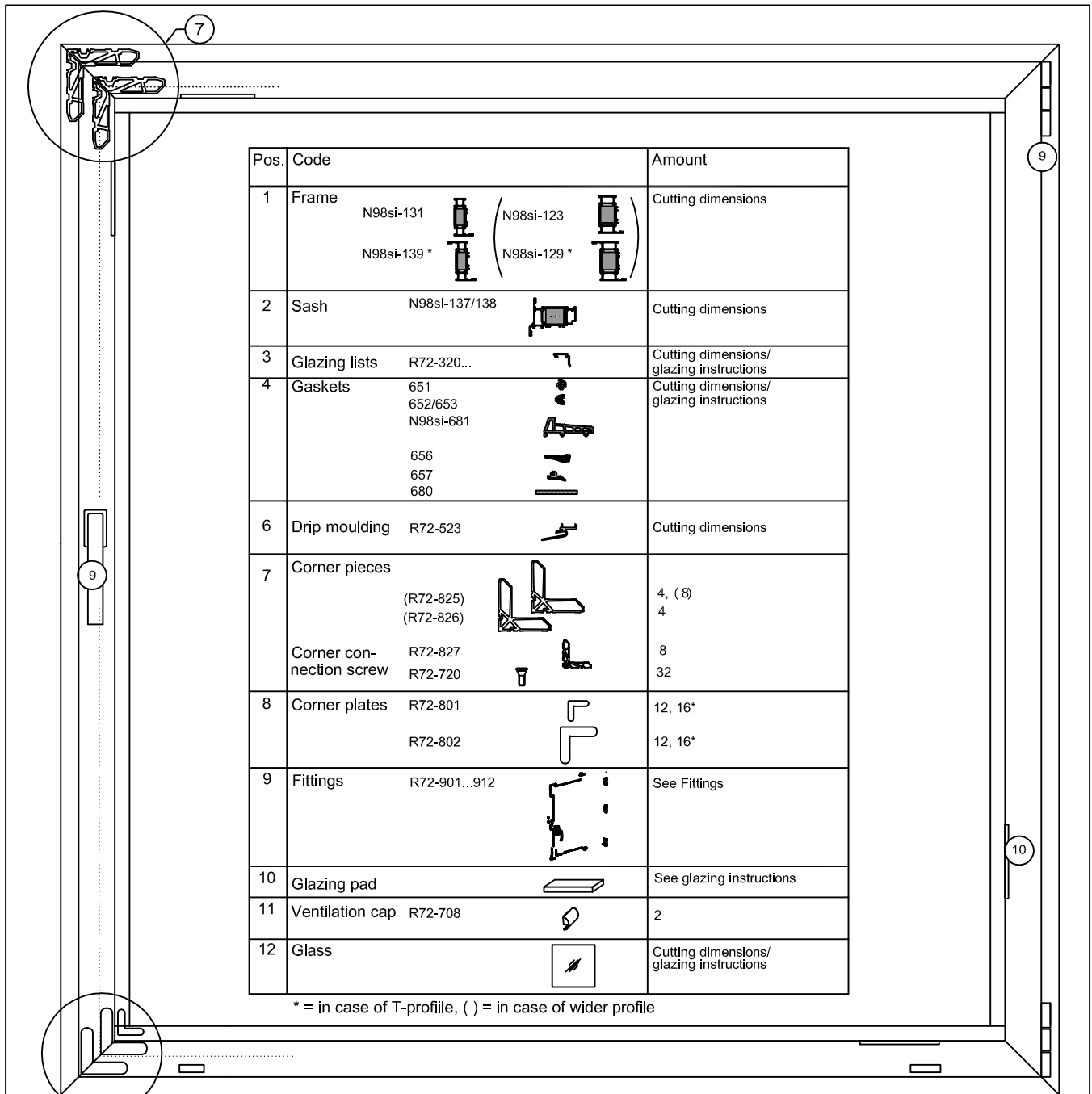


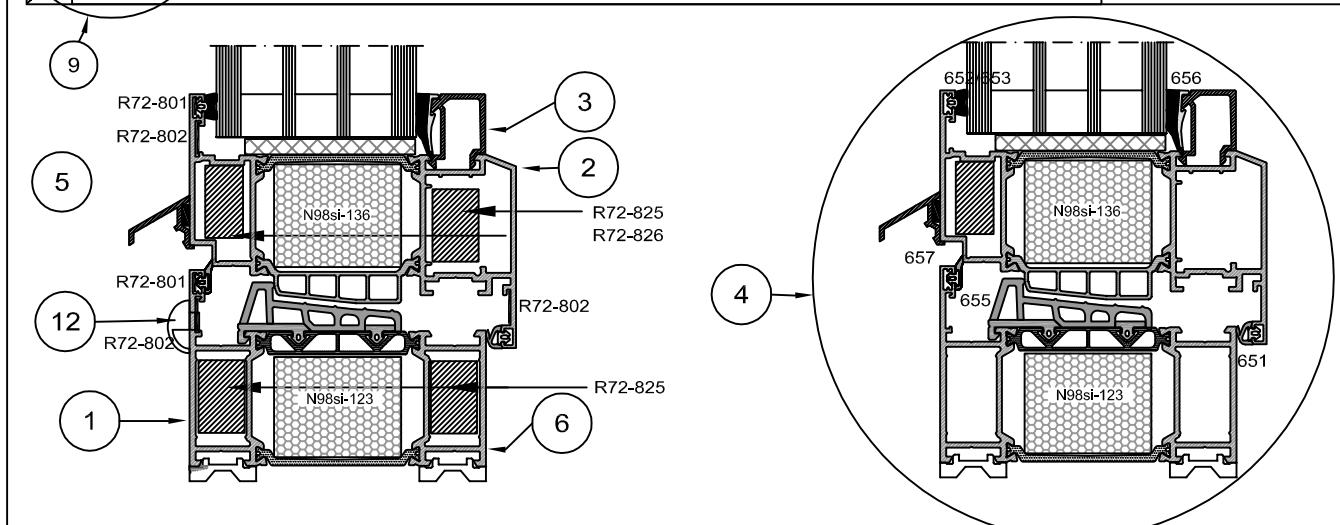
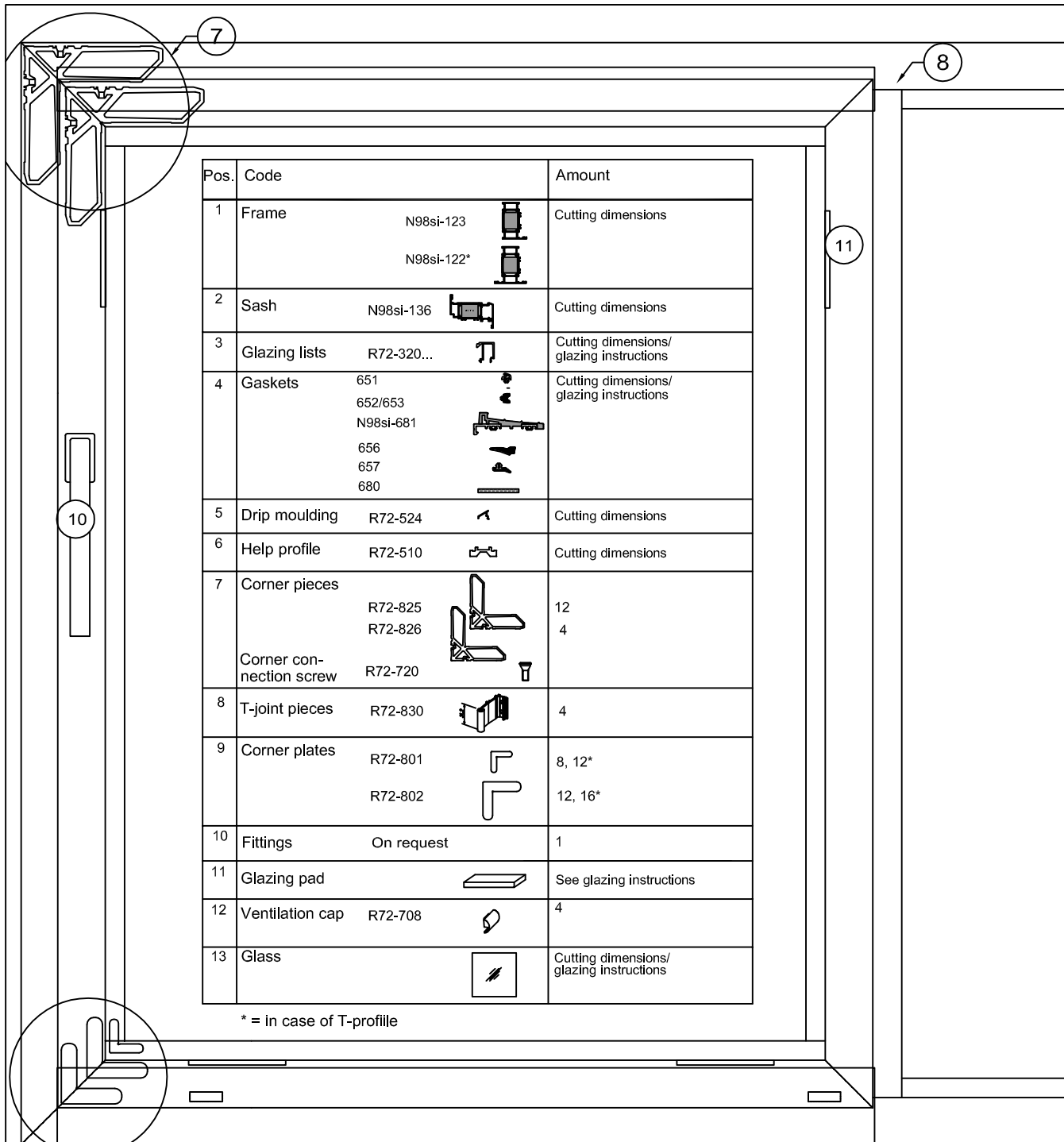
Pos.	Code	Amount
1	Frame N98si-131 N98si-132 * 	Cutting dimensions
2	Sash N98si-135 	Cutting dimensions
3	Rebate profile N98si-204 	Cutting dimensions
4	Glazing lists R72-320... 	Cutting dimensions/ glazing instructions
5	Gaskets 651 652/653 N98si-681 656 657 680 	Cutting dimensions/ glazing instructions
6	Drip moulding R72-524 	Cutting dimensions
7	Plate binding R72-523 	Cutting dimensions
8	Corner pieces (R72-825) 	(8)
	Corner con- nection screw R72-827 R72-828 R72-720 	16, (8) 8 48
9	Corner plates R72-801 R72-802 	12, 16* 20, 24*
10	Fittings R72-913 	See Fittings
11	Glazing pad 	See glazing instructions
12	Ventilation cap R72-708 	4
13	Cap-piece N98si-703 	2
14	Glass 	Cutting dimensions/ glazing instructions

* = in case of T-profile, () = in case of wider profile



01.04.2016





01.04.2016

1. GENERAL

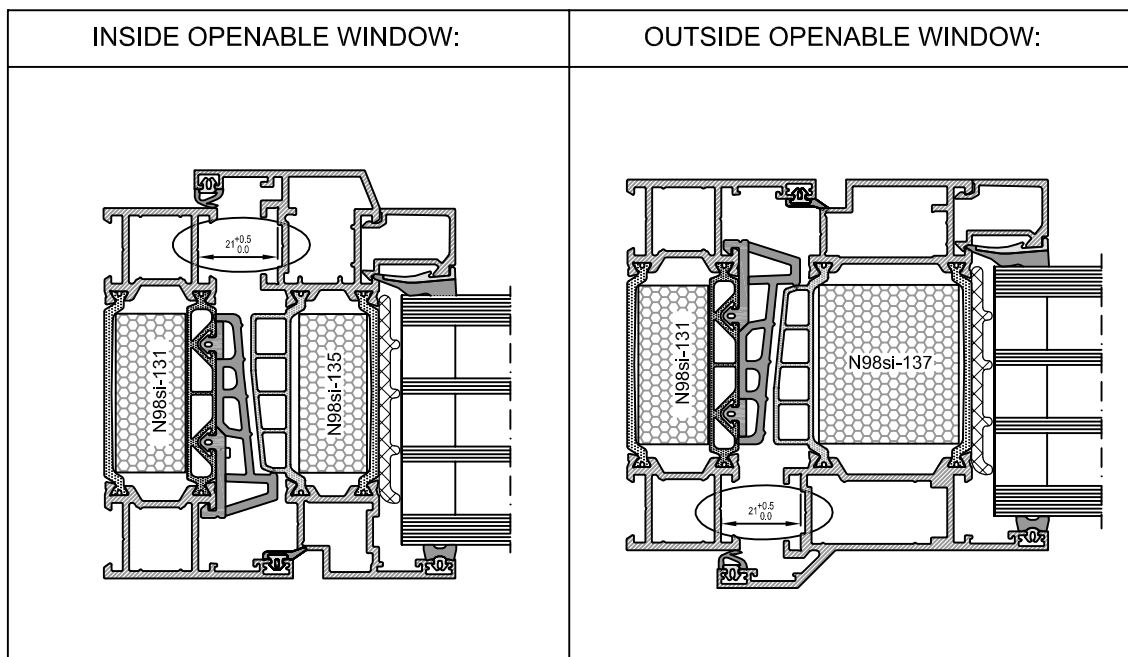
- given instructions are applicable to tables 3.6 / 3.7 / 3.8 (inside openable windows), tables 3.13 (outside openable windows) and table 4.1 (glasswall)
- the table dimensions are nominal
- all of the table measurements are for anodized profiles
- the cutting dimensions of painted profiles have to be taken smaller than in the table (see article 3)
- the structure is presented in a table which consists of horizontal and vertical sections, with a help of which the cutting measurements can be found

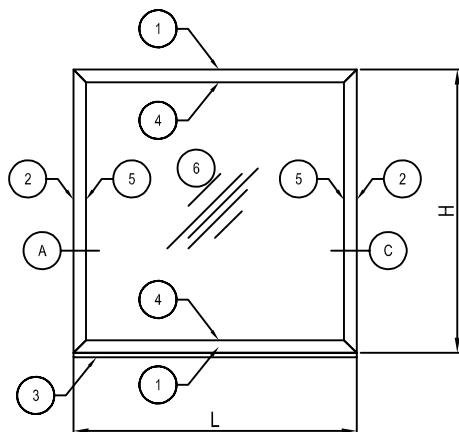
2. GLAZINGLISTS AND GLAZING

- horizontal glazinglist goes through the whole opening
- see Glazing, page 6.0: fastening of the horizontal 656 gasket
- dimensions of glass and glazinglists in the tables are given only for sash profiles N98si-135 (inside openable window) and N98si-137 (outside openable window)
- cutting dimensions of glass and glazinglists for other sash profiles can be found from the given horizontal and vertical cross sections









3. WINDOW SASH DIMENSIONS & FITTINGS

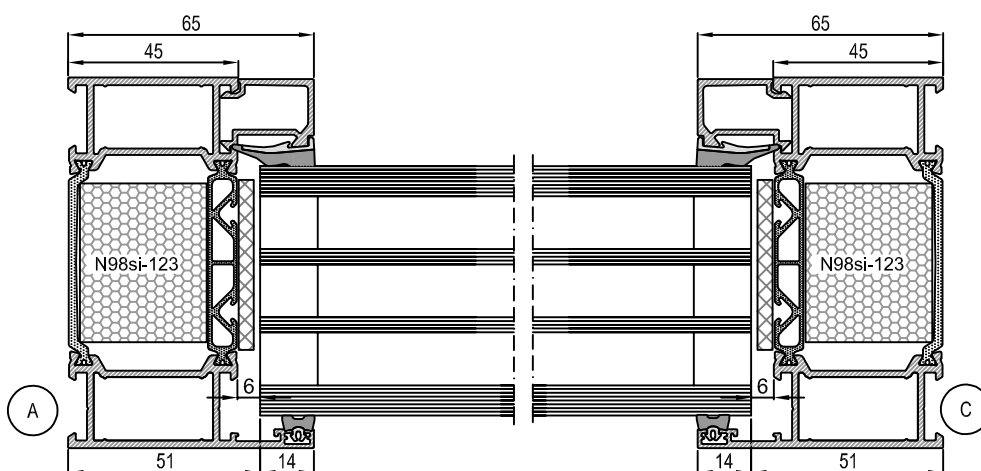
- painting decreases the sash profile cutting dimensions which are given in tables and cross sections the dimension decreases 1...2 mm in order to make the fittings to work in a proper way
- window sash dimensions ALWAYS have to consider the size of the fittings (check sash dimensions)



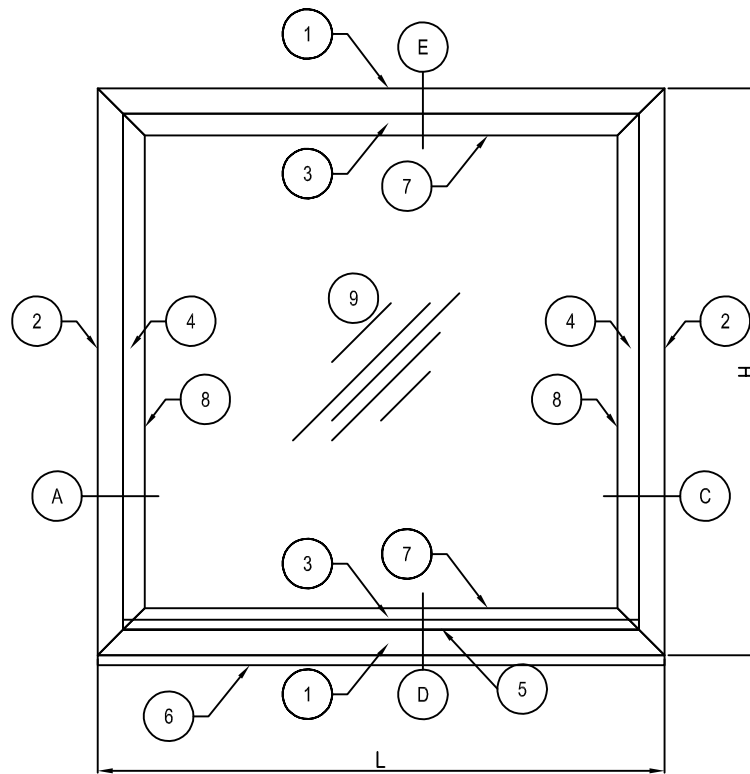


Cutting measures for different frame variants:












No:	Part:	Profile/ orientation:	N98si-131 	N98si-123 	N98si-132 	N98si-122 	Angles:
1	Horizontal frame	-	L	L	L	L	45° / 45°
2	Vertical frame	-	H	H	H	H	45° / 45°
3	Connection profile	R72-523 	L	L	L	L	90° / 90°
4	Horizontal glazinglists		L-60	L-90	L-100	L-130	90° / 90°
5	Vertical glazinglist		H-100	H-130	H-140	H-170	90° / 90°
6	Glass		L-70 H-70	L-100 H-100	L-110 H-110	L-140 H-140	



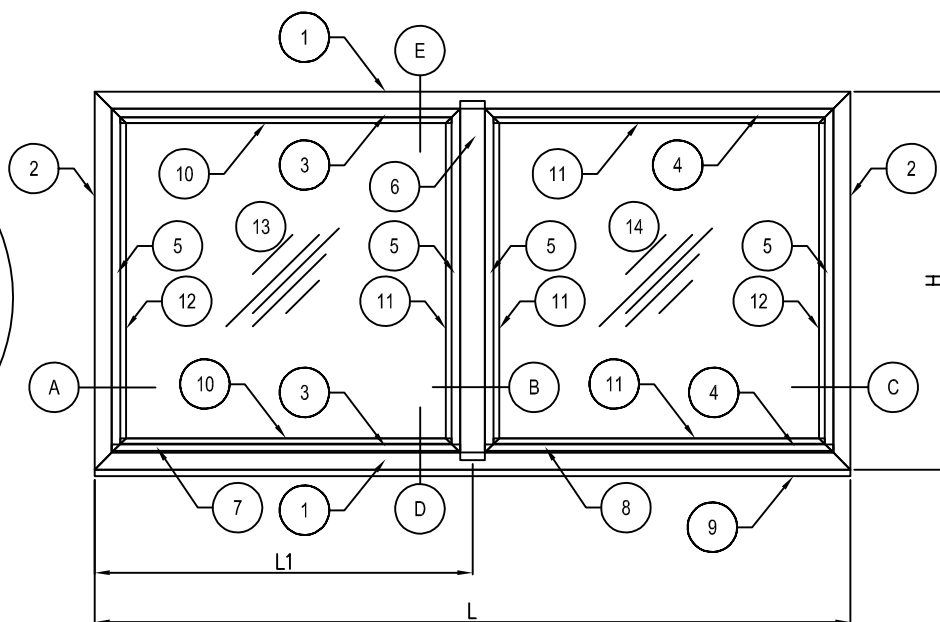
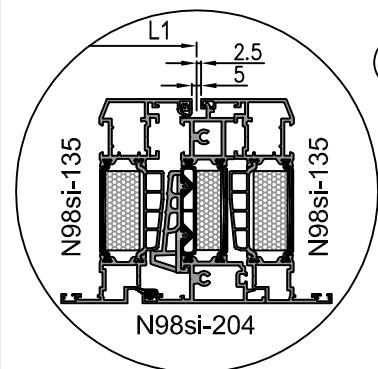
01.04.2016
















Cutting measures for different frame variants:

No:	Part:	Profile/ orientation:	Cutting measures for different frame variants:				Angles:
			N98si-131 	N98si-123 	N98si-132 	N98si-122 	
1	Horizontal frame	-	L	L	L	L	45° / 45°
2	Vertical frame	-	H	H	H	H	45° / 45°
3	Horizontal sash	N98si-135 	L-48	L-78	L-88	L-118	45° / 45°
4	Vertical sash	N98si-135 	H-48	H-78	H-88	H-118	45° / 45°
5	Drip moulding	R72-524 	L-110	L-140	L-150	L-180	-
6	Connection profile	R72-523 	L	L	L	L	90° / 90°
7	Horizontal glazinglists		L-146	L-176	L-186	L-216	90° / 90°
8	Vertical glazinglist		H-186	H-216	H-226	H-256	90° / 90°
9	Glass		L-156	L-186	L-196	L-226	
			H-156	H-186	H-196	H-226	

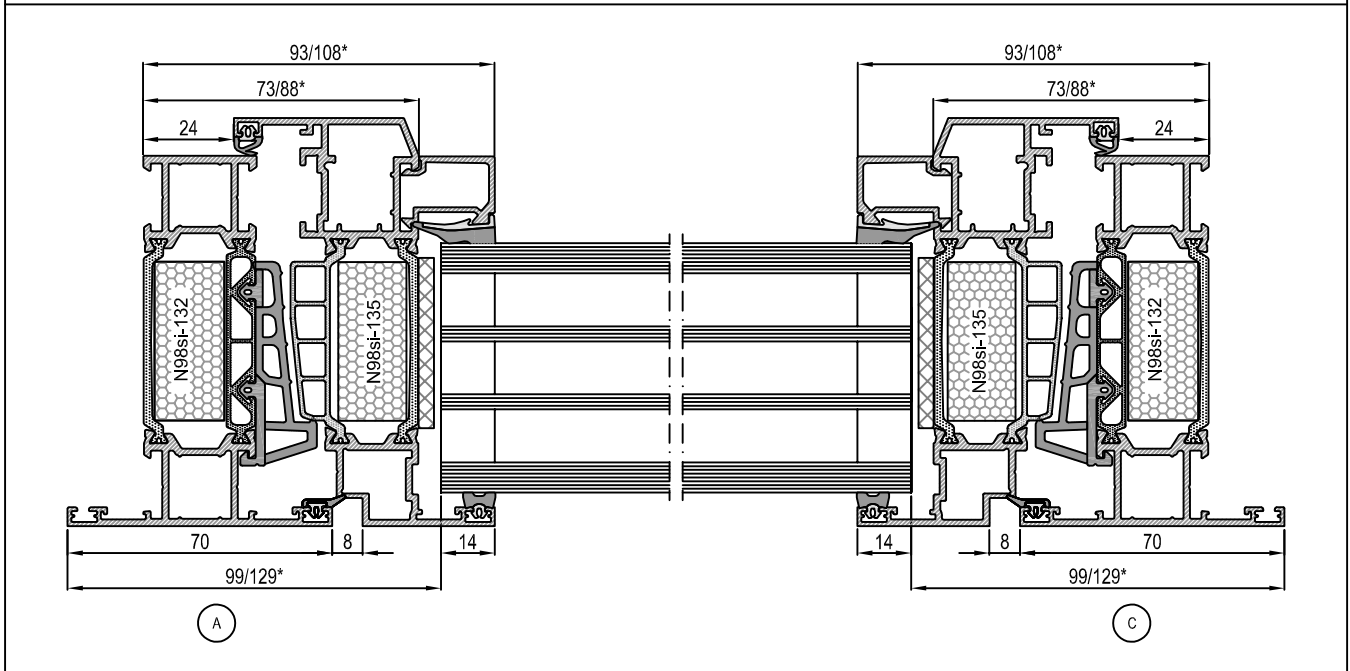
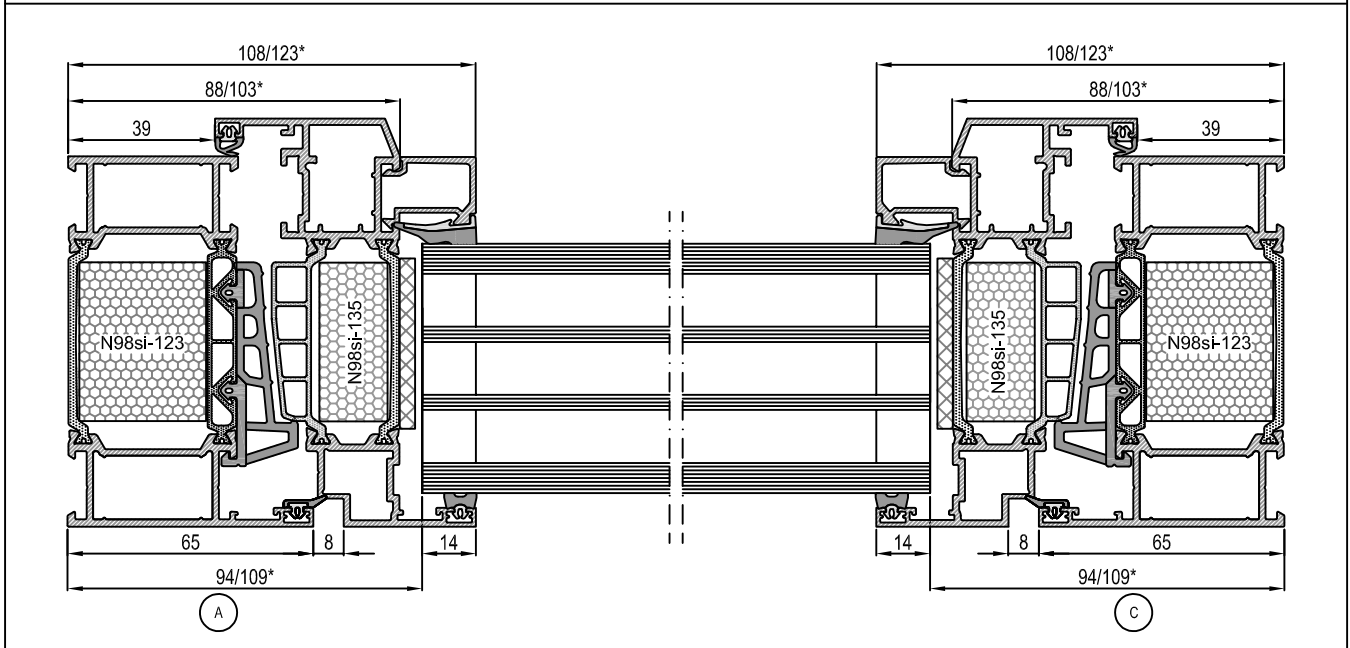
DIMENSION L1:



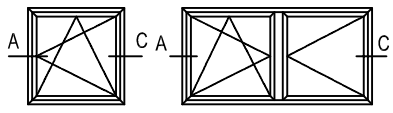
Cutting measures for different frame variants:

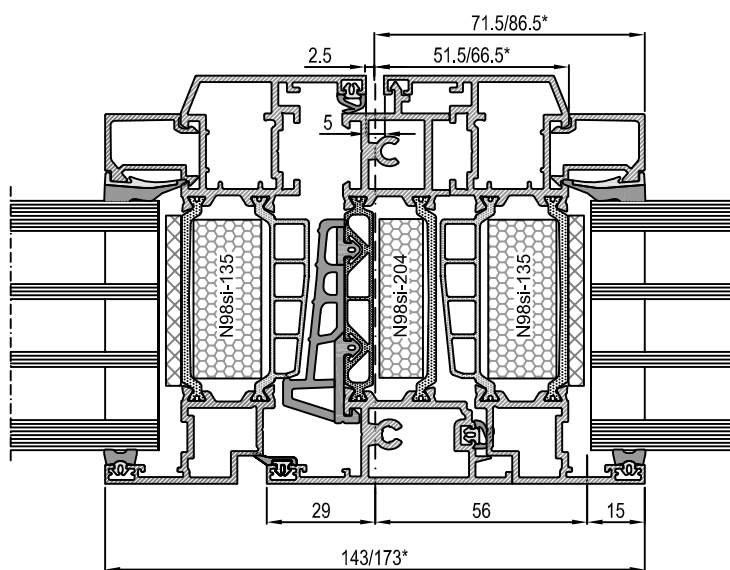
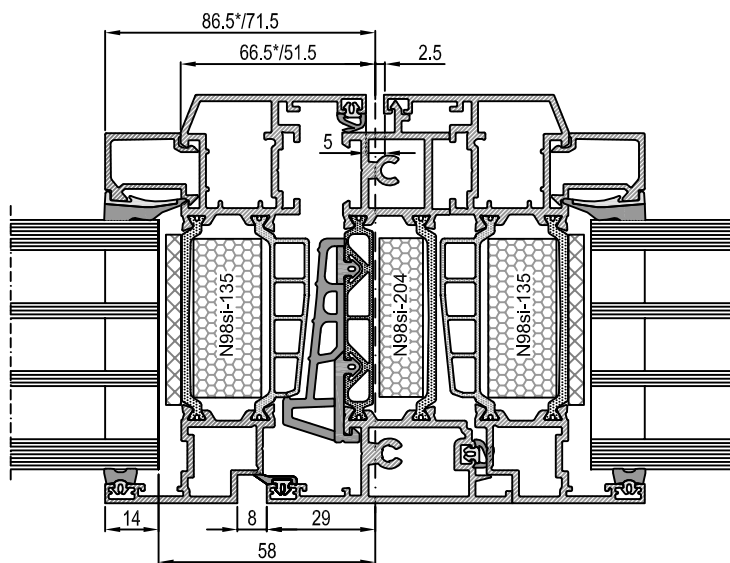
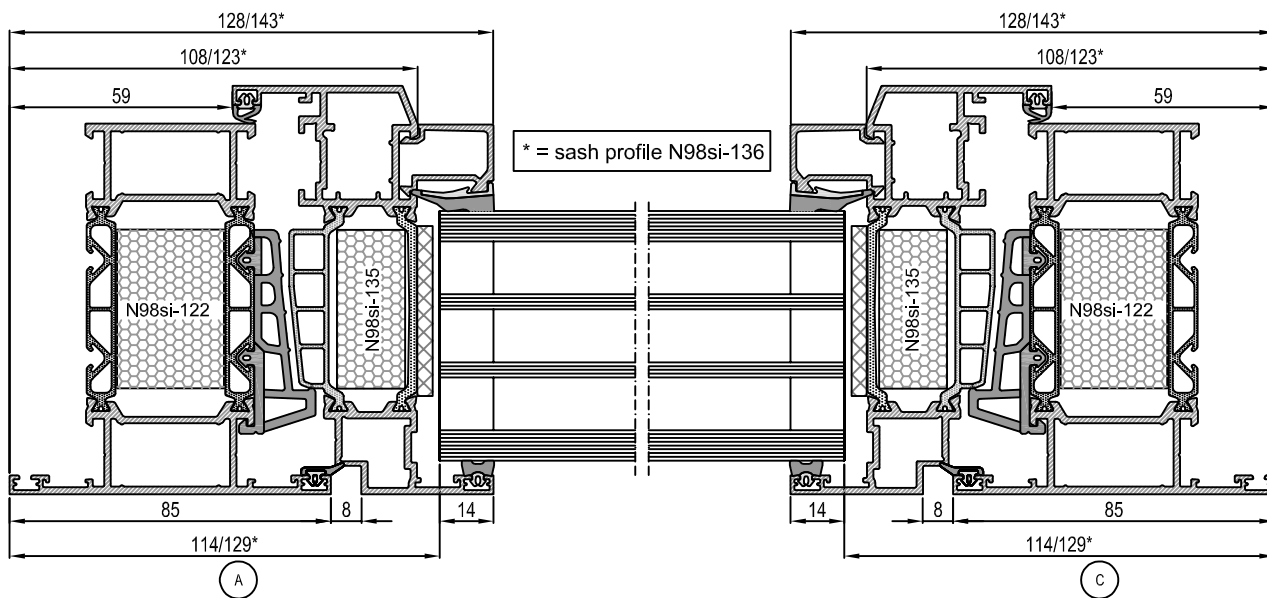
No:	Part:	Profile/ orientation:	Cutting measures for different frame variants:				Angles:	
			N98si-131 	N98si-123 	N98si-132 	N98si-122 		
1	Horizontal frame	-	L	L	L		45° / 45°	
2	Vertical frame	-	H	H	H		45° / 45°	
3,4	Horizontal sash	N98si-135 	3	L1-26.5	L1-41.5	L1-46.5	L1-61.5	45° / 45°
			4	L-L1-26.5	L-L1-41.5	L-L1-46.5	L-L1-61.5	
5	Vertical sash	N98si-135 	H-48	H-78	H-88	H-118	45° / 45°	
6	Rebate profile	N98si-204 	H-119	H-149	H-159	H-189	90° / 90°	
7,8	Drip moulding	R72-524 	7	L1-88	L1-103	L1-108	L1-123	-
			8	L-L1-27	L-L1-42	L-L1-47	L-L1-62	
9	Connection profile	R72-523 	L	L	L	L	90° / 90°	
10,11	Horizontal glazinglists		10	L1-124.5	L1-139.5	L1-144.5	L1-159.5	90° / 90°
			11	L-L1-124.5	L-L1-139.5	L-L1-144.5	L-L1-159.5	
12	Vertical glazinglist		H-186	H-216	H-226	H-256	90° / 90°	
13	Glass		L1-136	L1-151	L1-156	L1-171		
			H-158	H-188	H-198	H-228		
14	Glass		L-L1-136	L-L1-151	L-L1-156	L-L1-171		
			H-158	H-188	H-198	H-228		

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N98si

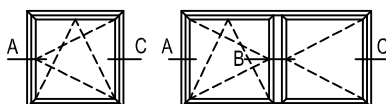




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3.10

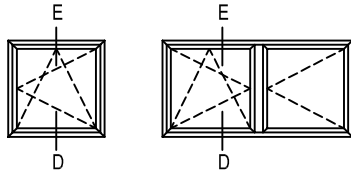
NOKIAN
PROFILES



N98si

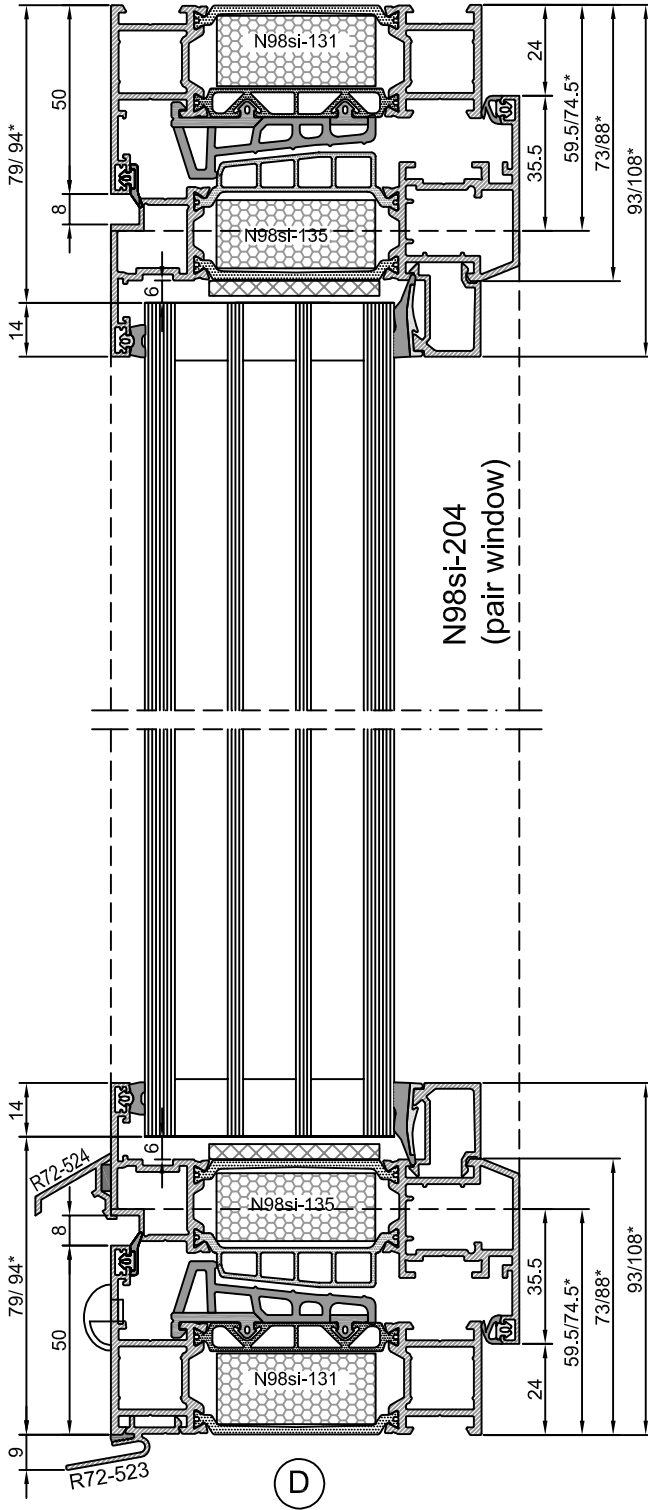
Inside openable pair window. Details A, B & C

Frame N98si-131



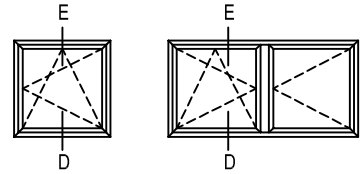
* = sash profile N98si-136

E



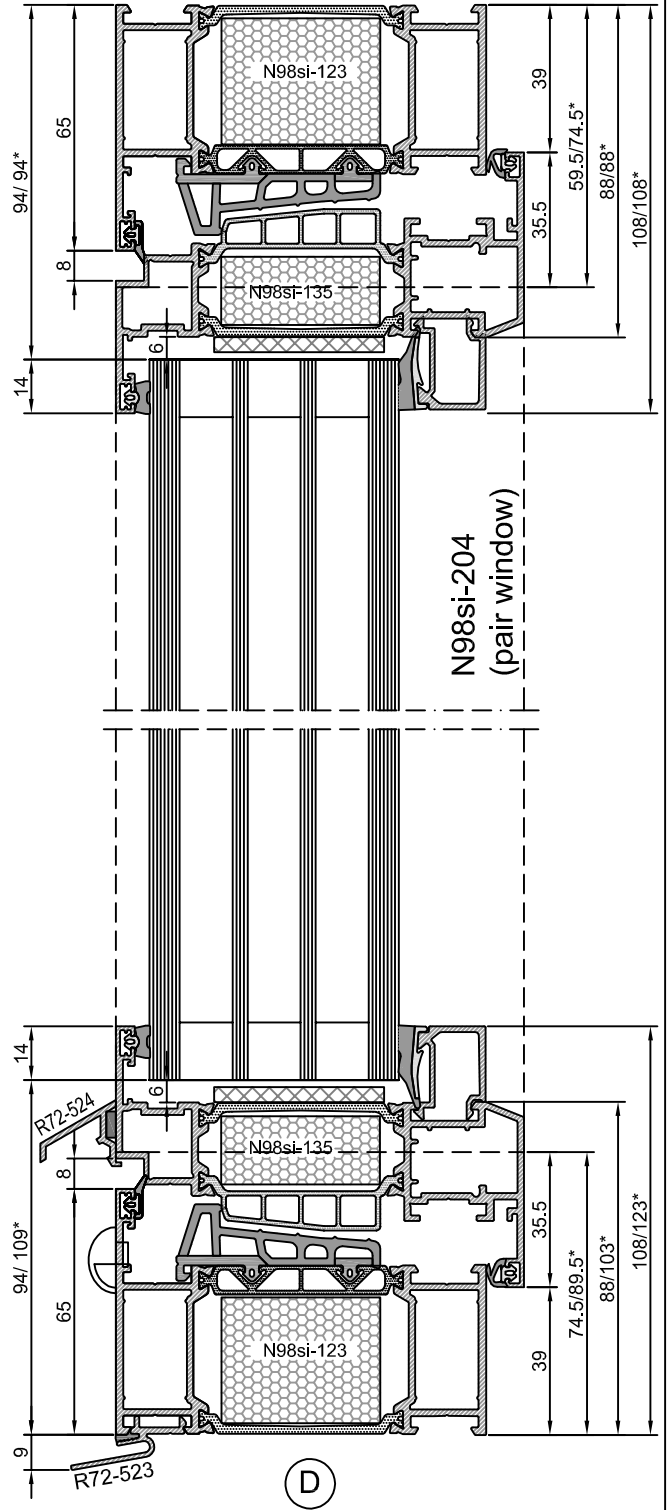
D

Frame N98si-123



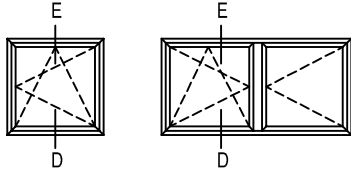
* = sash profile N98si-136

E



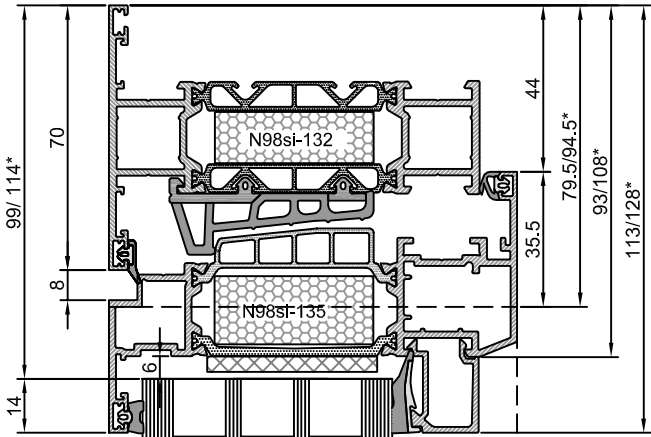
D

Frame N98si-132fw

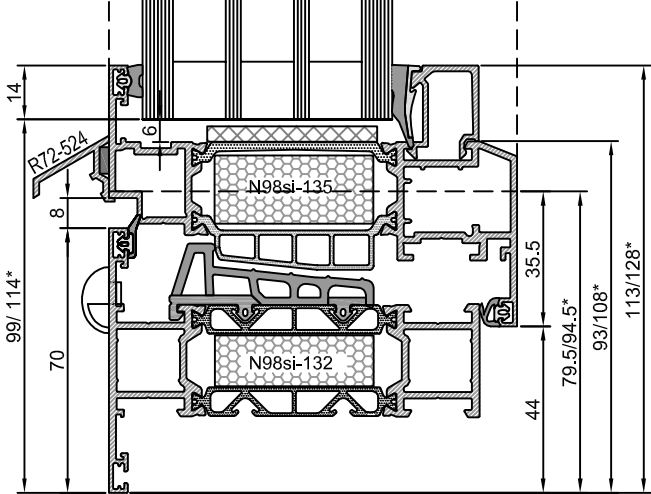


* = sash profile N98si-136

(E)

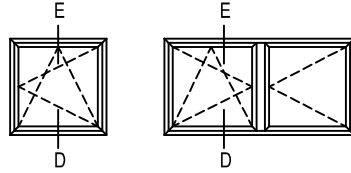


N98si-204
(pair window)



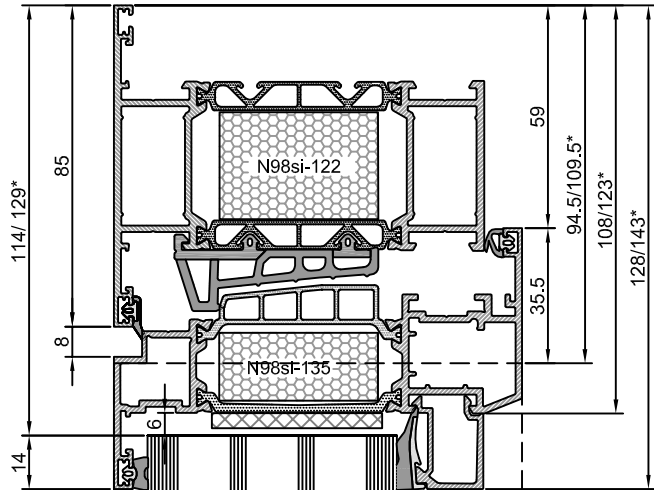
(D)

Karmi N98si-122fw

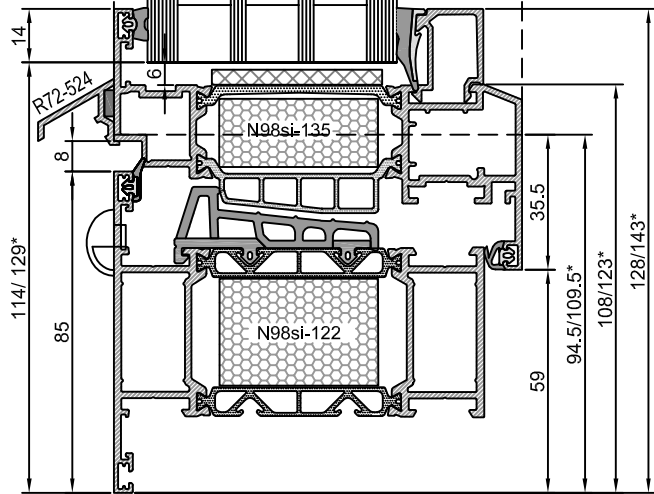


* = sash profile N98si-136

(E)

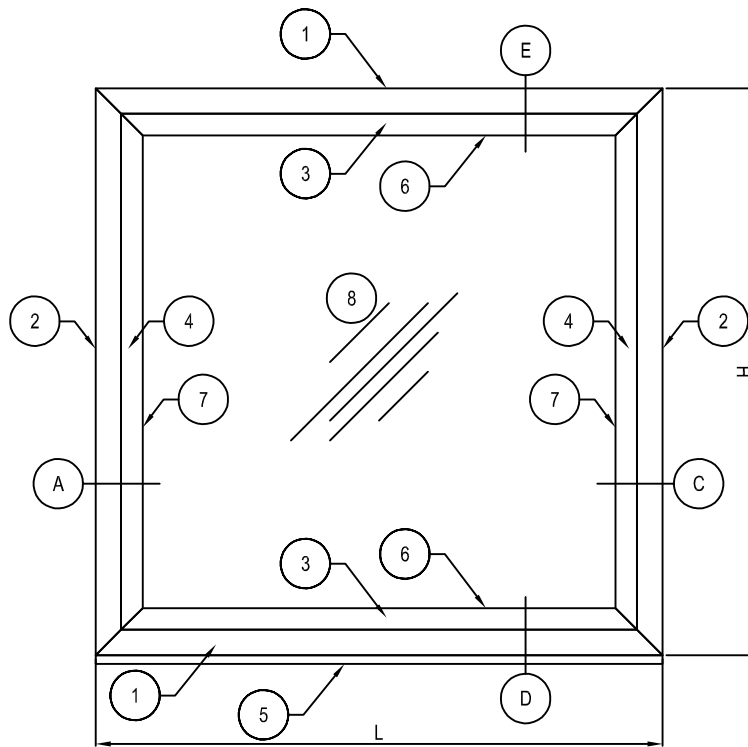


N98si-204
(pair window)













(D)

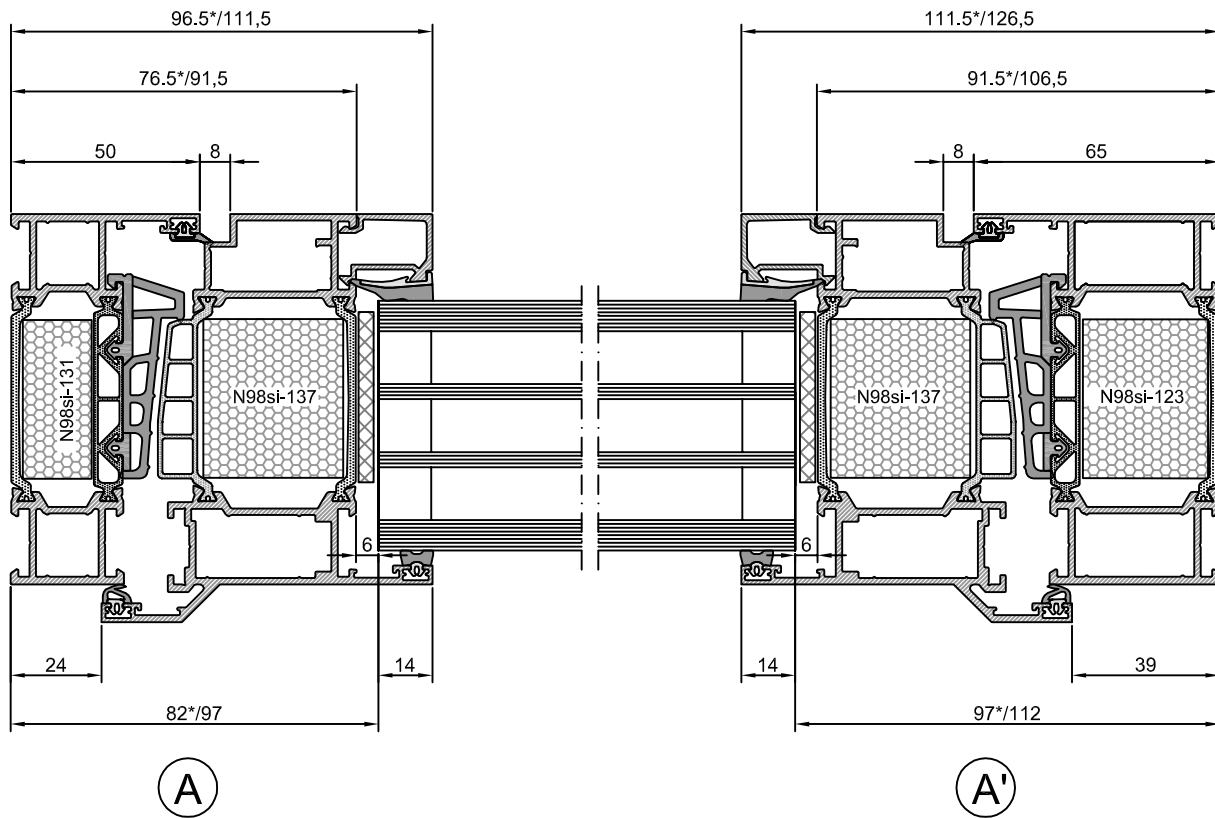
01.04.2016



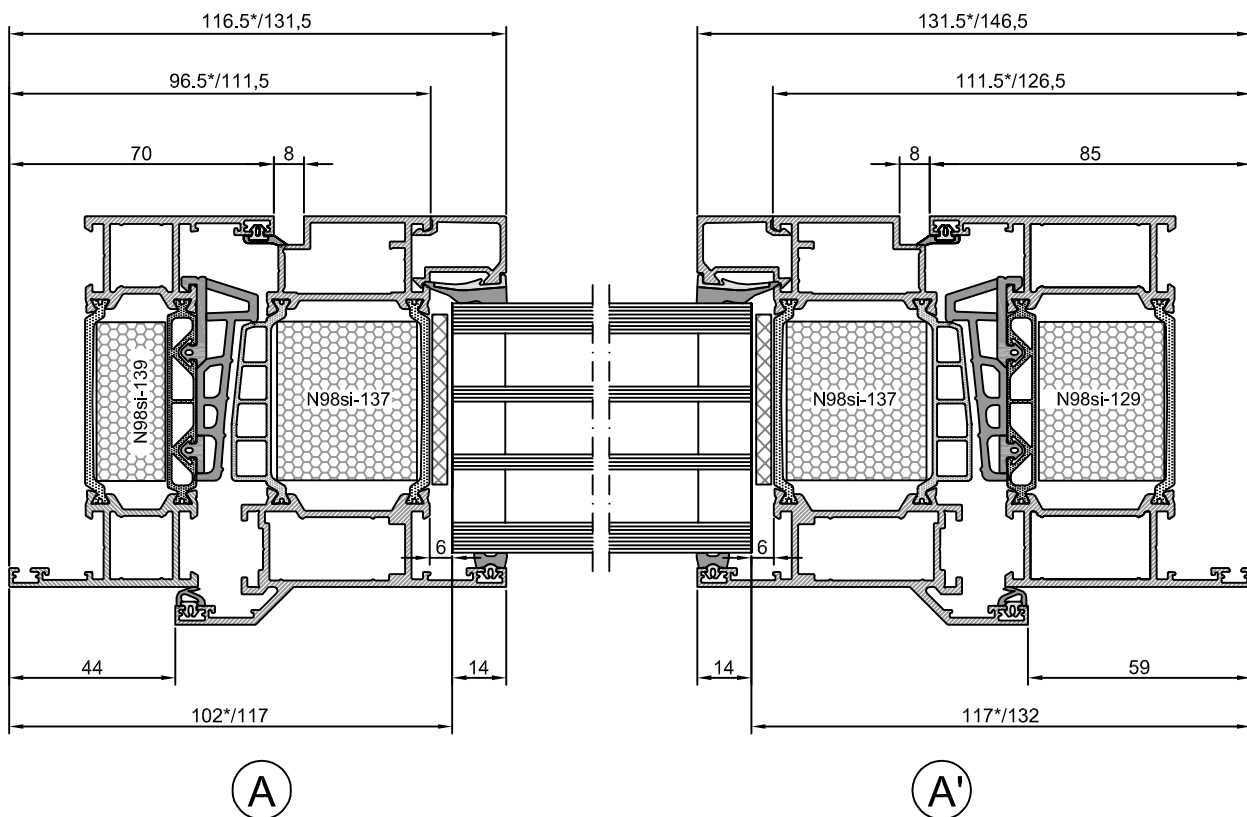
Cutting measures for different frame variants:

No:	Part:	Profile/ orientation:	Cutting measures for different frame variants:				Angles:
			N98si-131 	N98si-123 	N98si-139 	N98si-129 	
1	Horizontal frame	-	L	L	L	L	45° / 45°
2	Vertical frame	-	H	H	H	H	45° / 45°
3	Horizontal sash	N98si-137 	L-48	L-78	L-88	L-118	45° / 45°
4	Vertical sash	N98si-137 	H-48	H-78	H-88	H-118	45° / 45°
5	Connection profile	R72-523 	L	L	L	L	90° / 90°
6	Horizontal glazinglists		L-179	L-209	L-219	L-249	90° / 90°
7	Vertical glazinglist		H-219	H-249	H-259	H-289	90° / 90°
8	Glass		L-190	L-220	L-230	L-260	
			H-190	H-220	H-230	H-260	

* = sash profile N98si-138

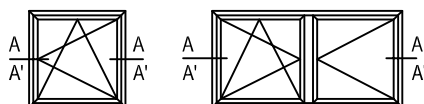


* = sash profiles N98si-138



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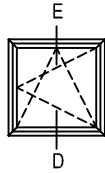
314 NOKIAN PROFILES



N98si

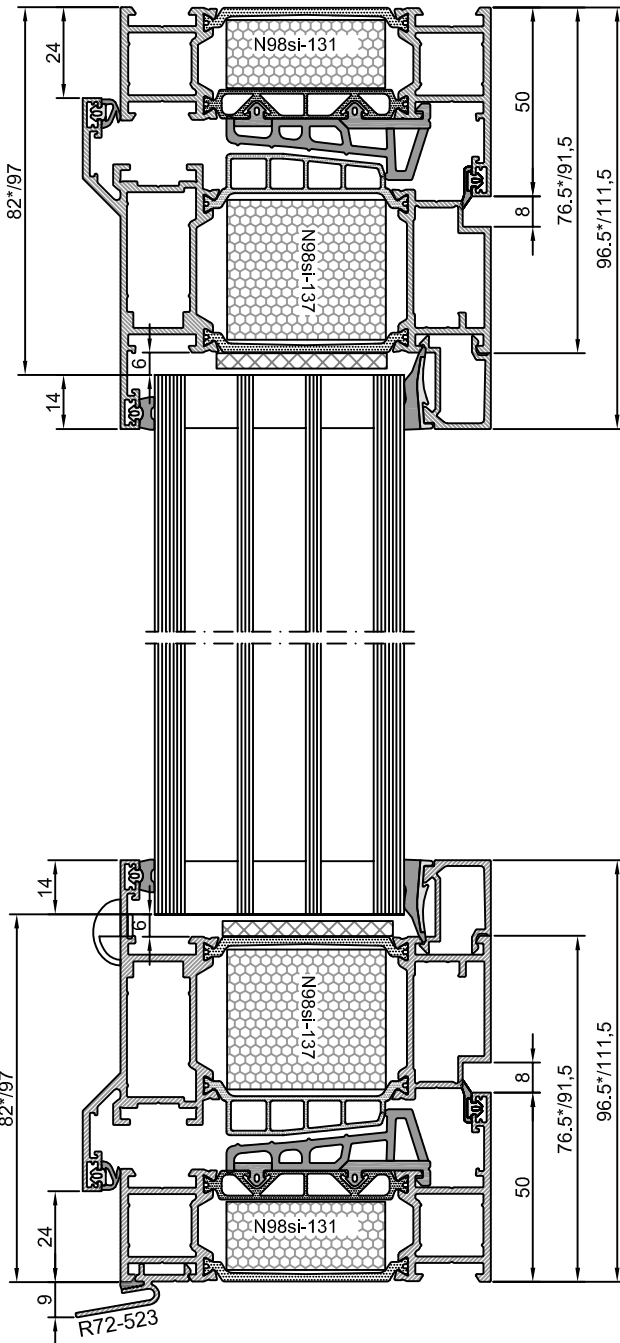
Outside openable windows. Details A & A'

Frame N98si-131



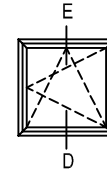
* = sash profile N98si-138

(E)



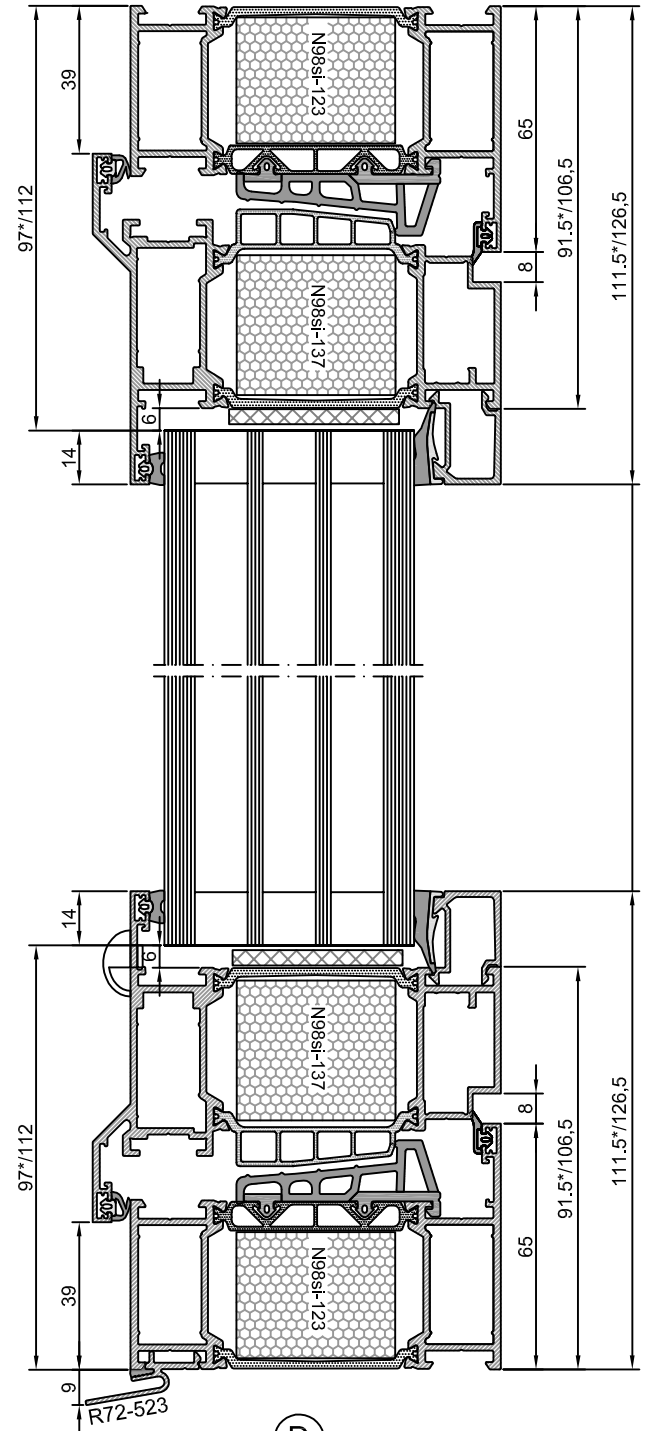
(D)

Frame N98si-123



* = sash profile N98si-138

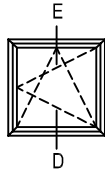
(E)



(D)

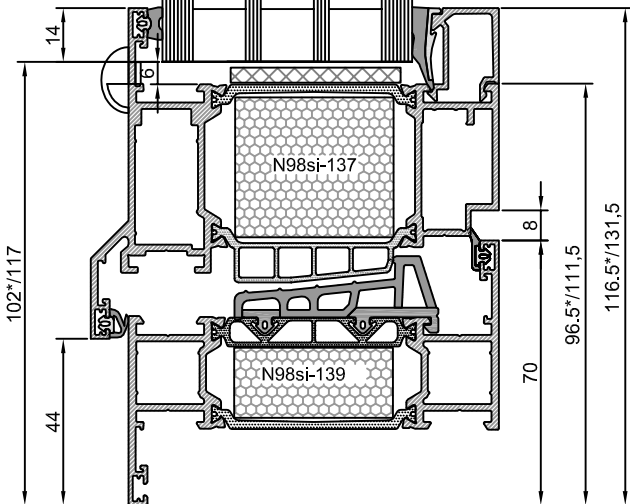
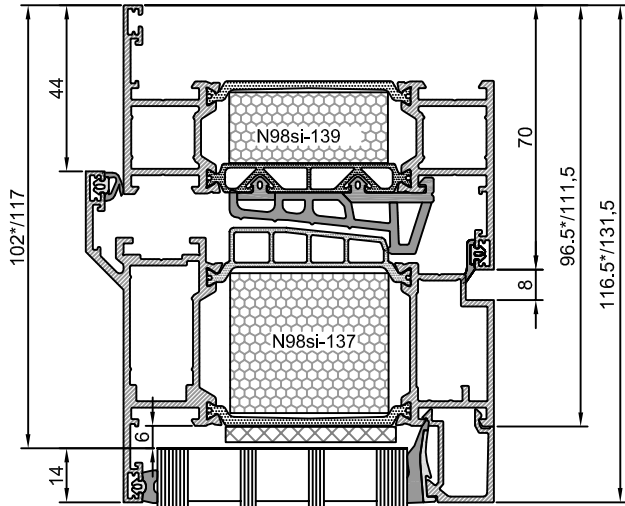


Frame N98si-139



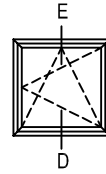
* = sash profile N98si-138

(E)



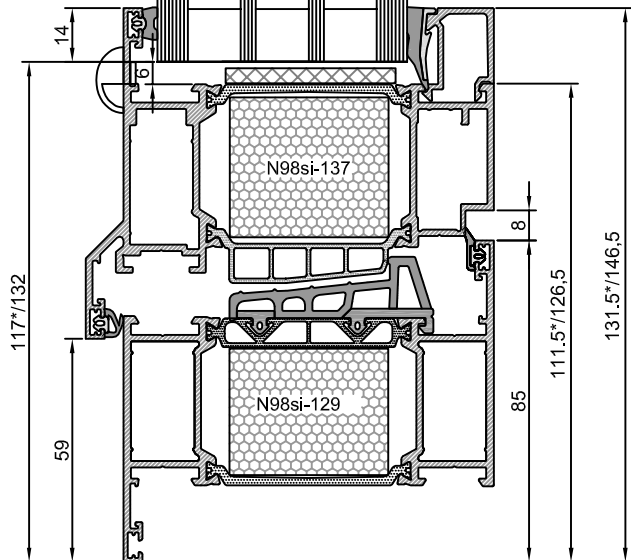
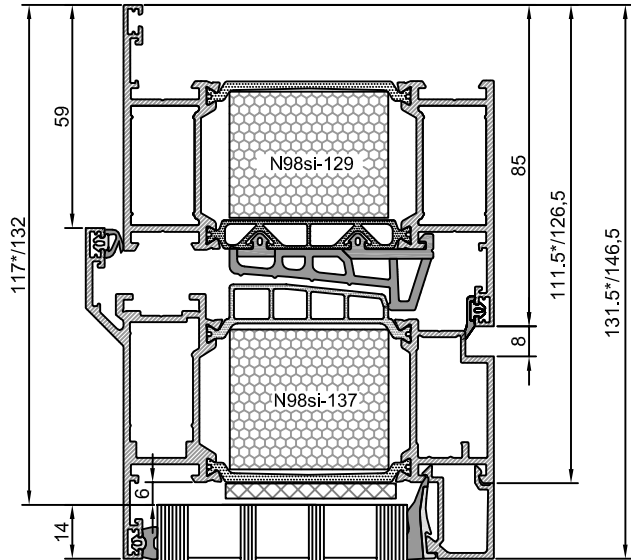
(D)

Frame N98si-129



* = sash profile N98si-138

(E)



(D)

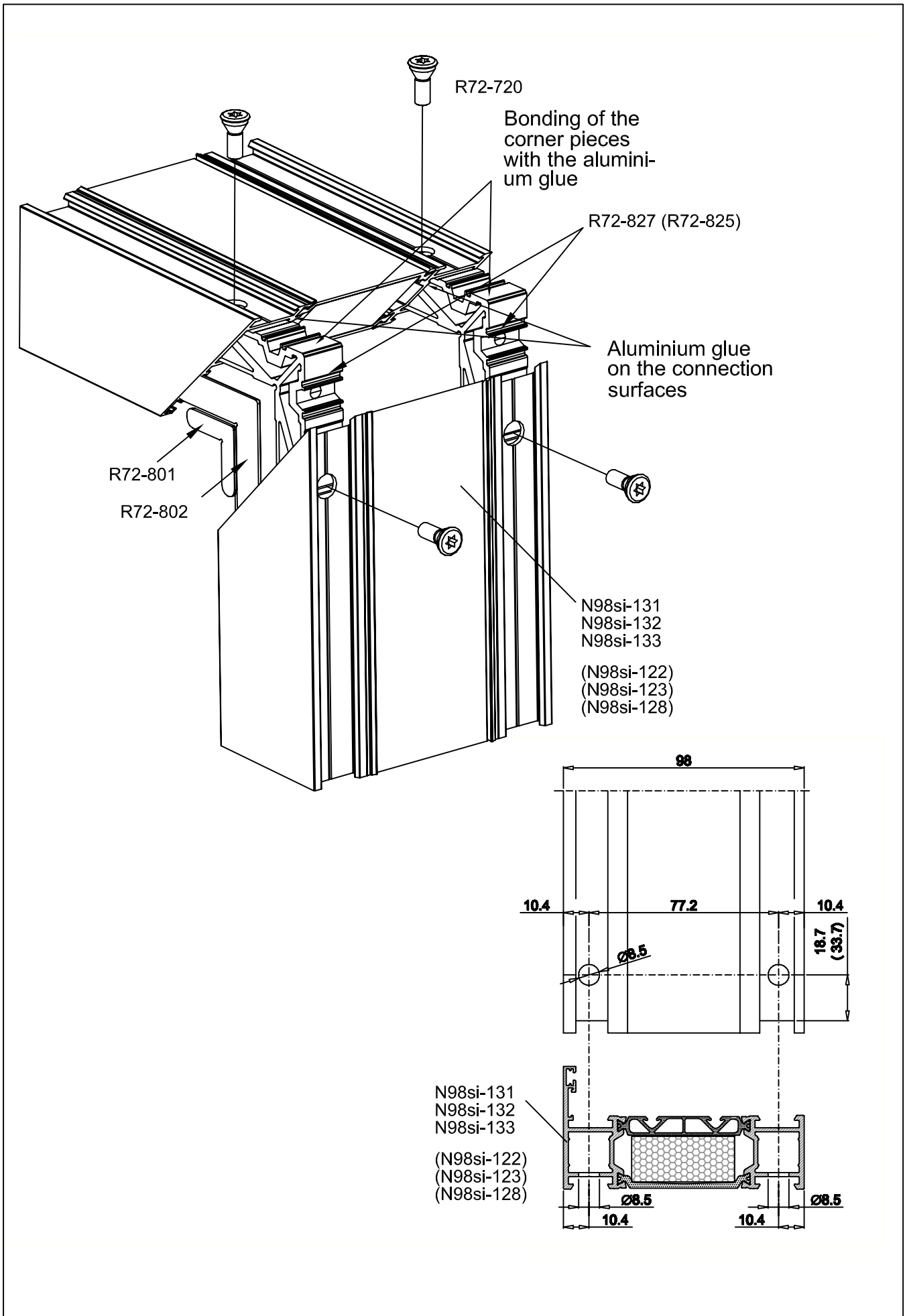
01.04.2016

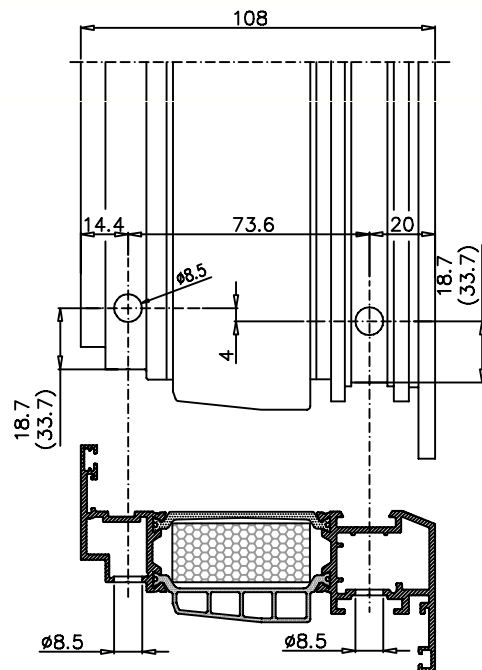
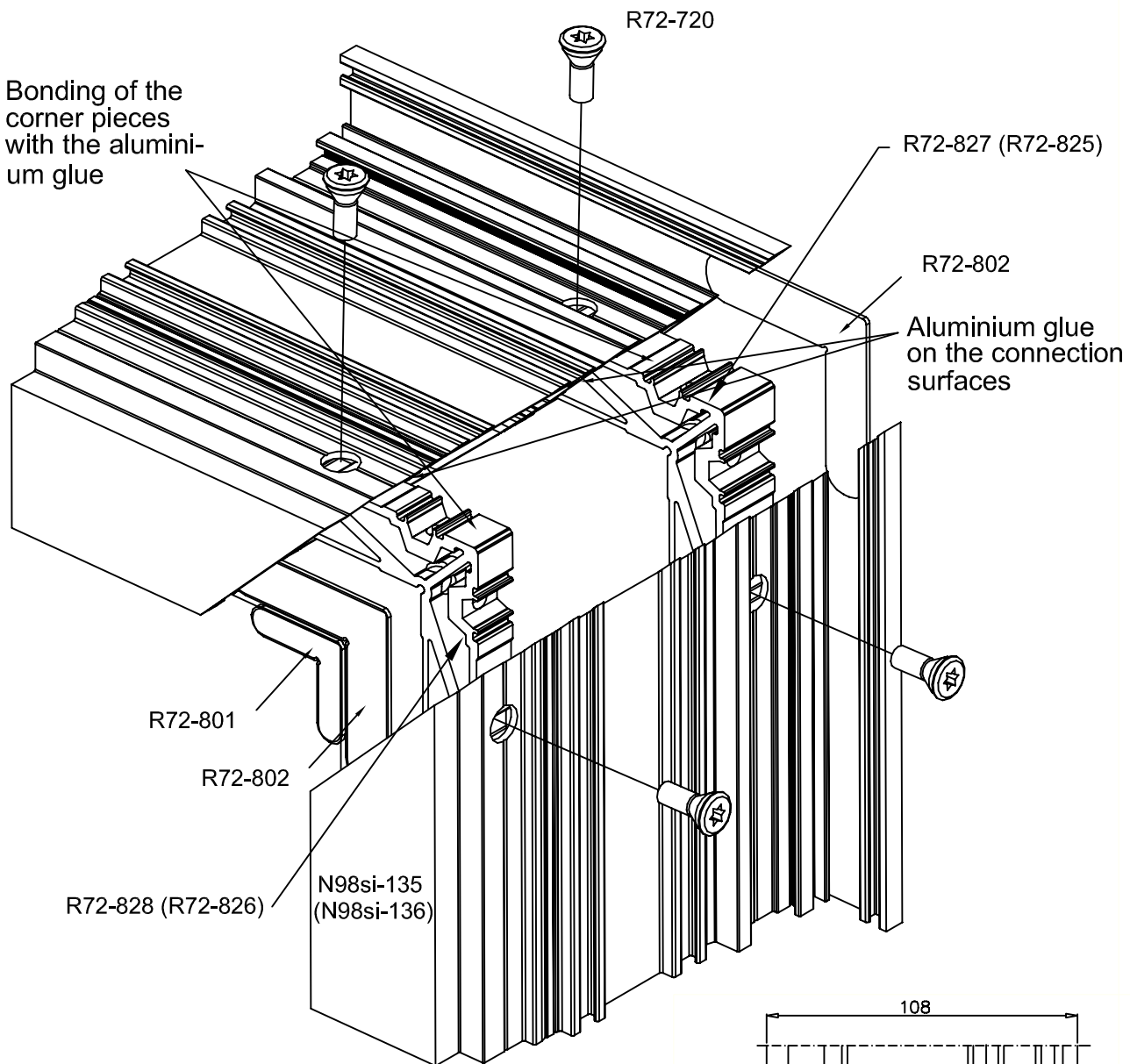
316 NOKIAN
PROFILES



N98si

Outside openable windows. Details D & E. Frames N98si-139 & N98si-129





N98si-135
(N98si-136)

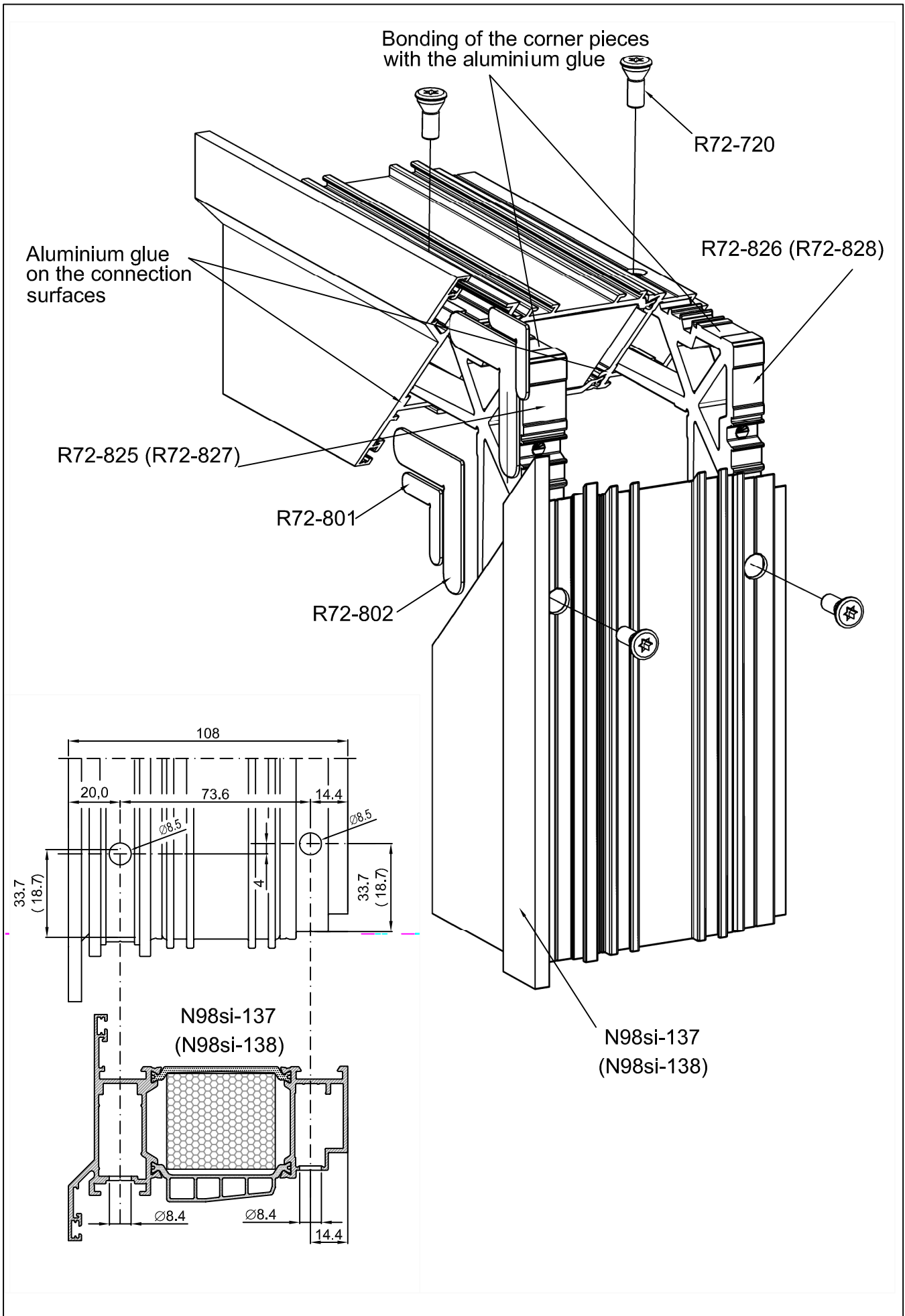
01.04.2016

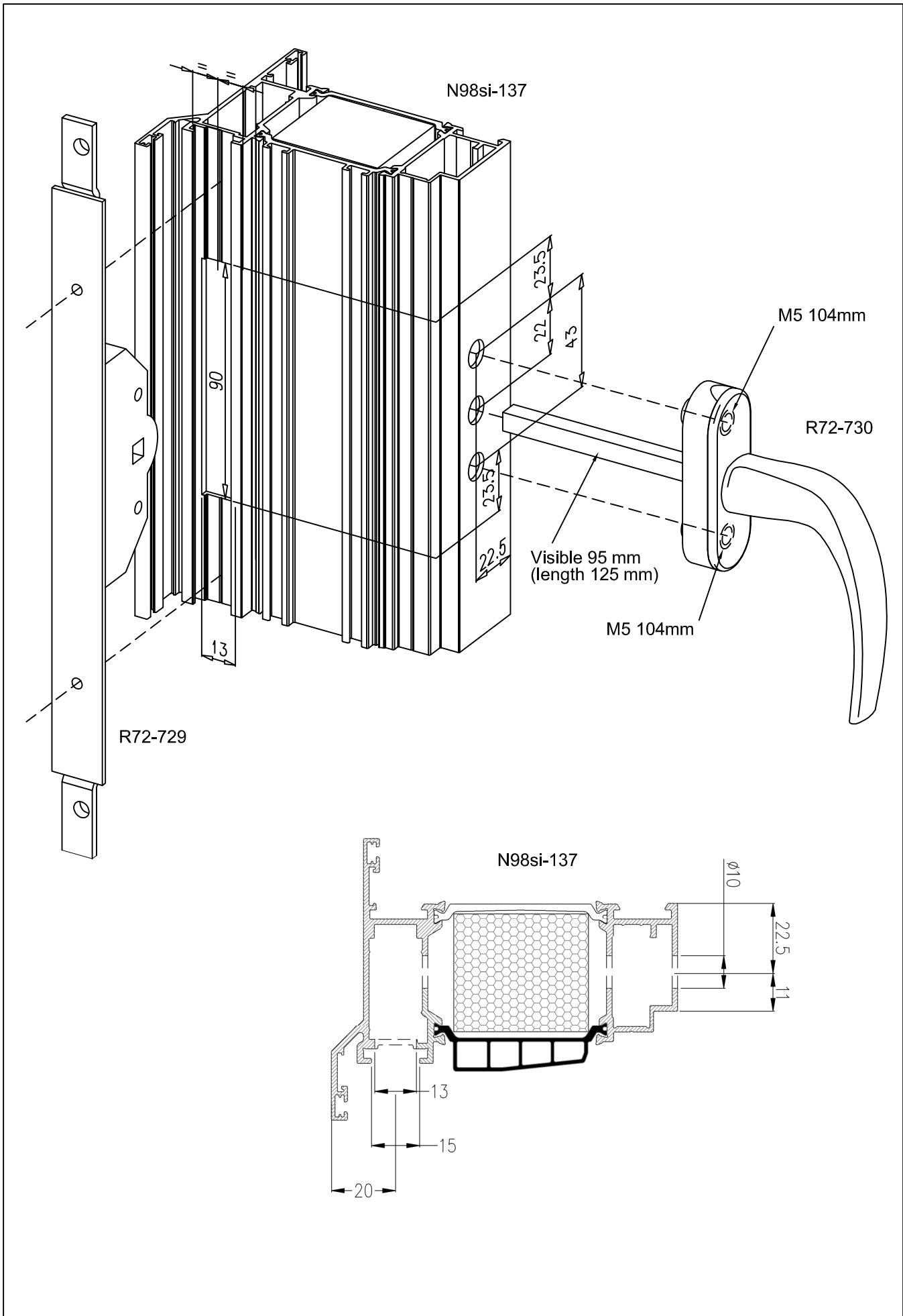
3.18

NOKIAN
PROFILES

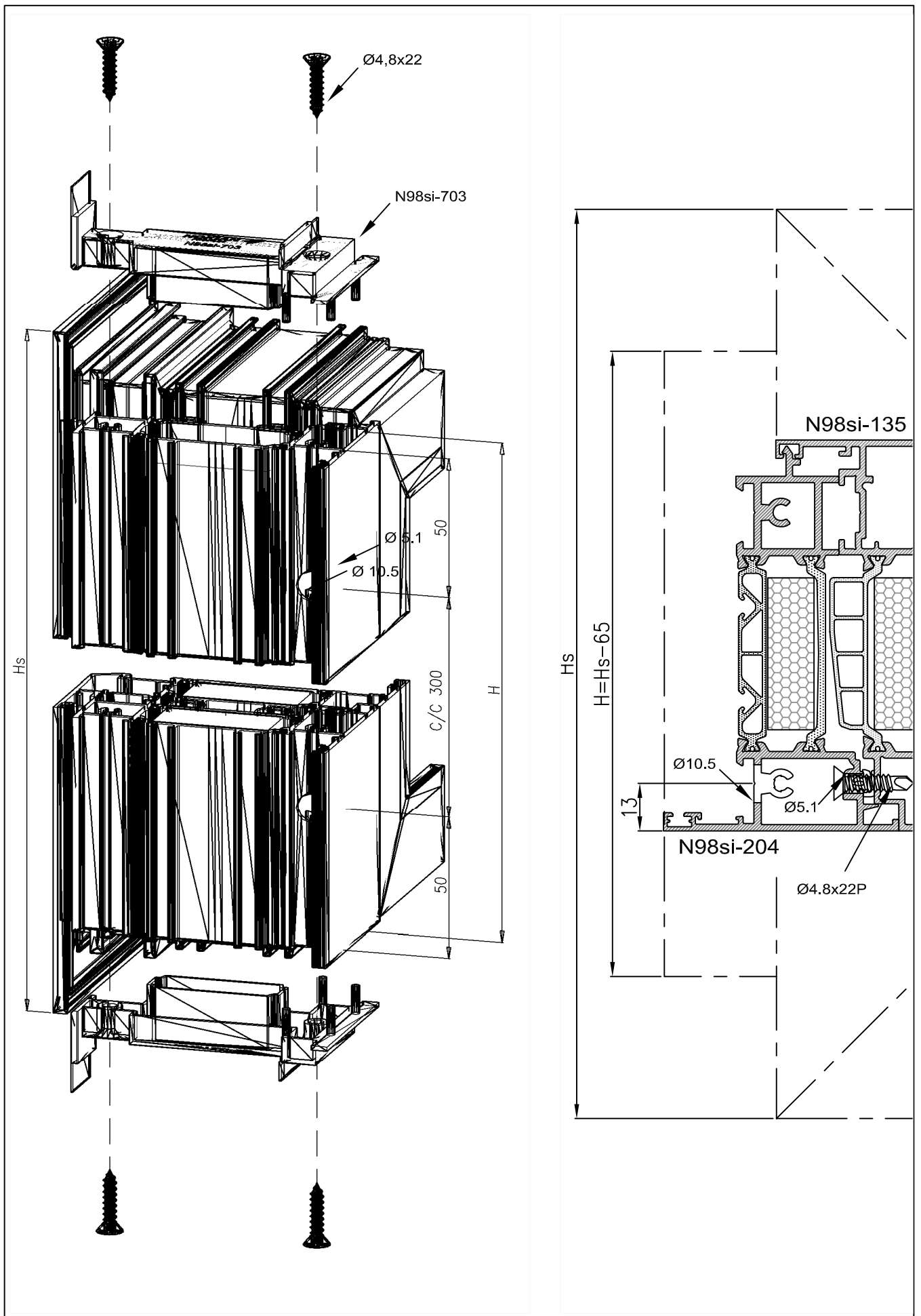
N98si

Window sash corner screw connection





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N98si

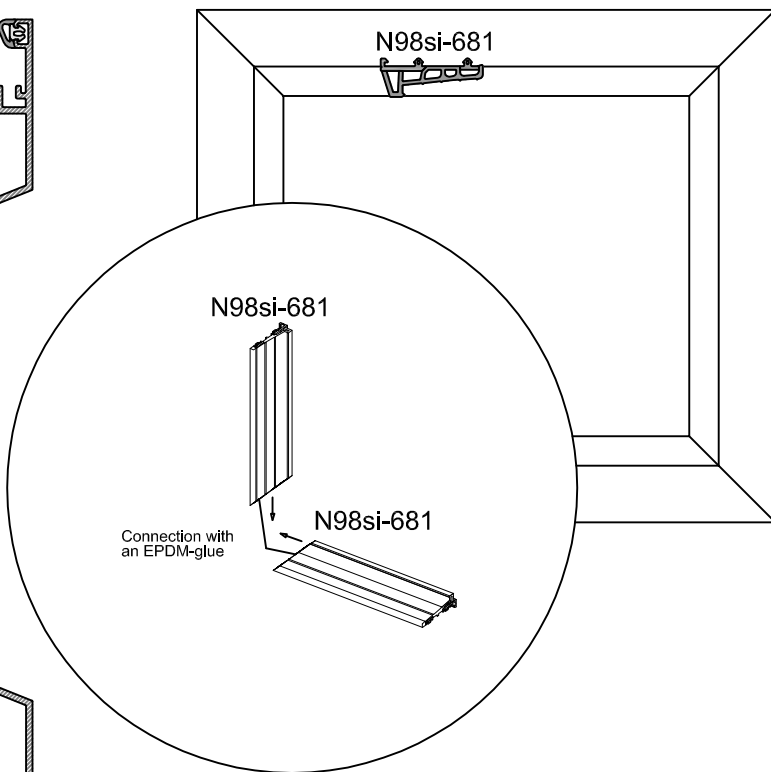
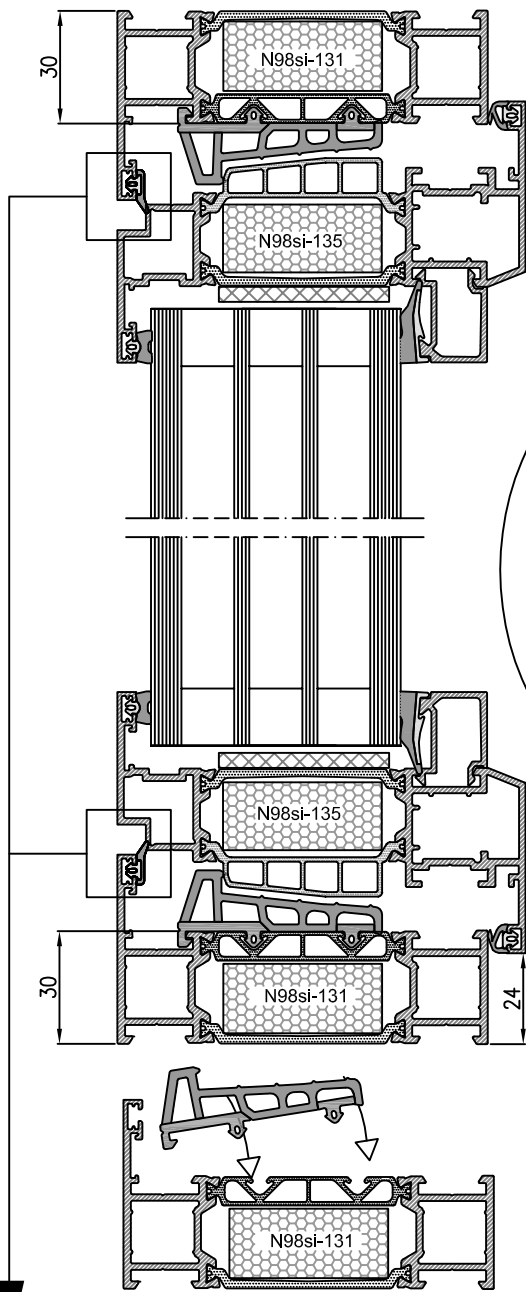
NOKIAN
PROFILES

01.04.2016

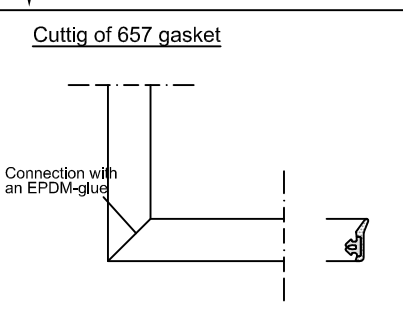
3.21

Adjustment of N98si-204 pair window rebate profile

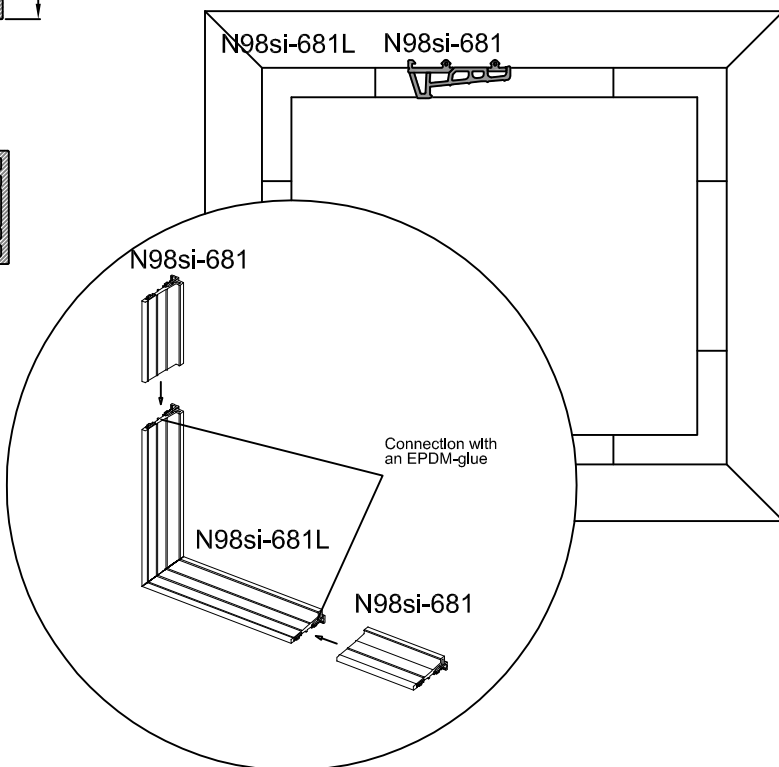
Option 1



Option 2 (With corner pieces)



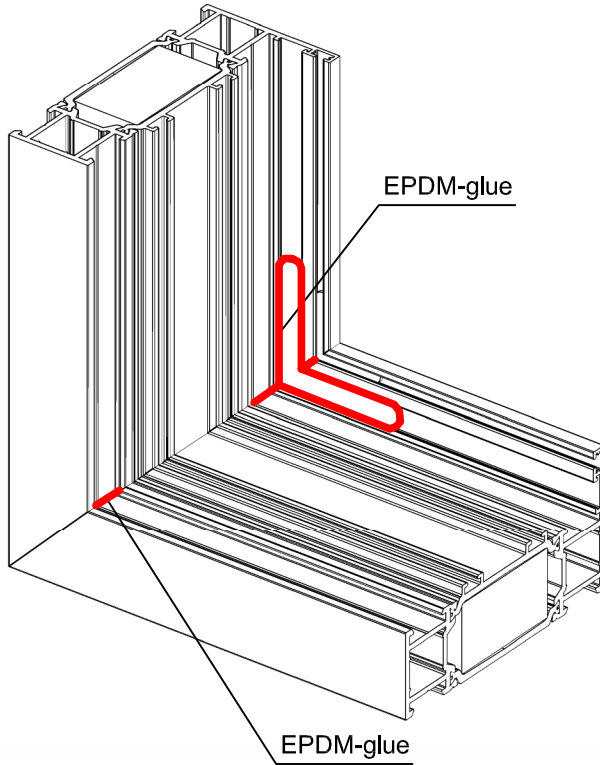
Reserve of the gasket's length for the shrinkage
~5mm/1m
Ends are sealed with a glue of a suitable compound



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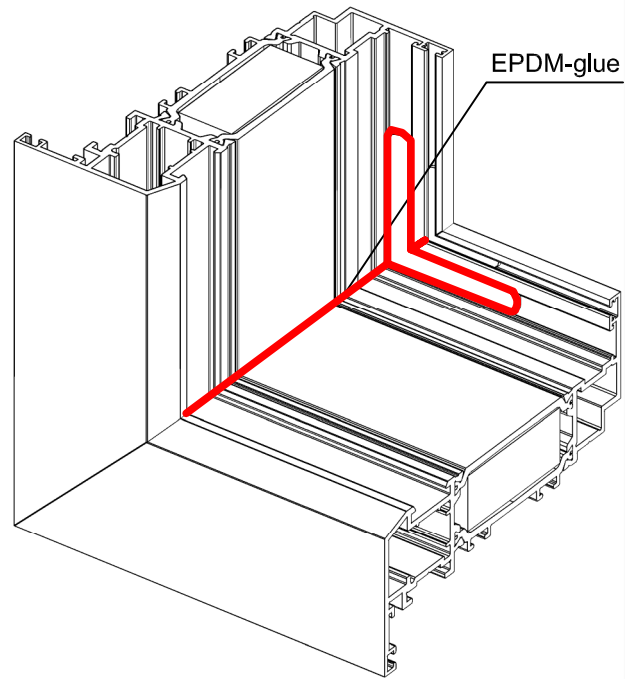
N98si-131fw

-internal side

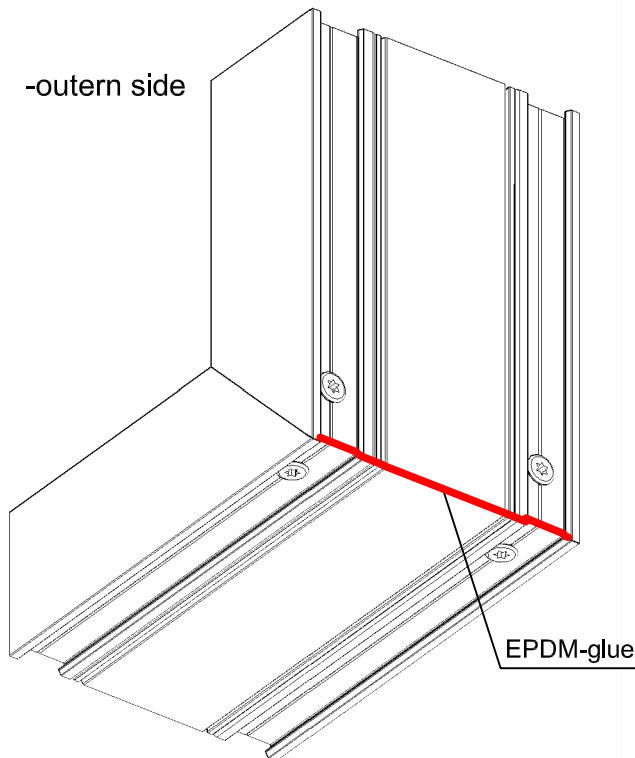


N98si-135

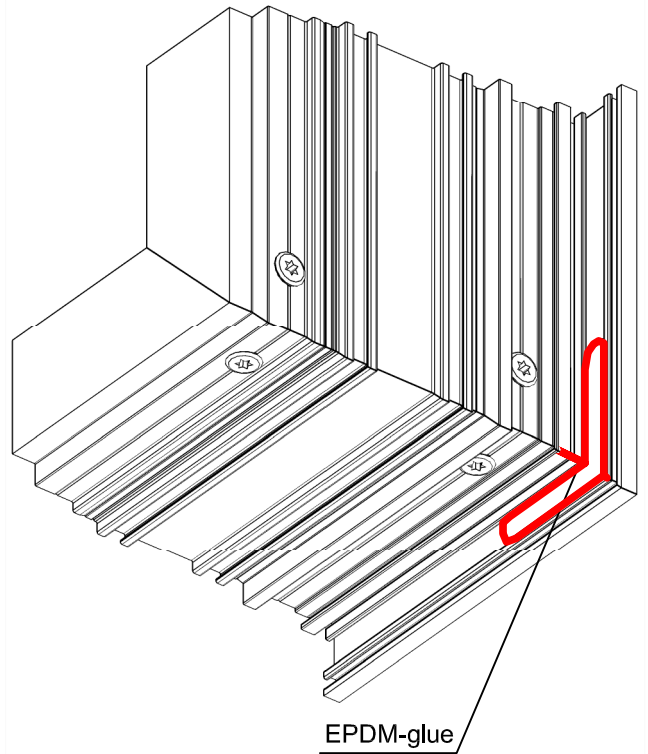
-internal side



-outern side



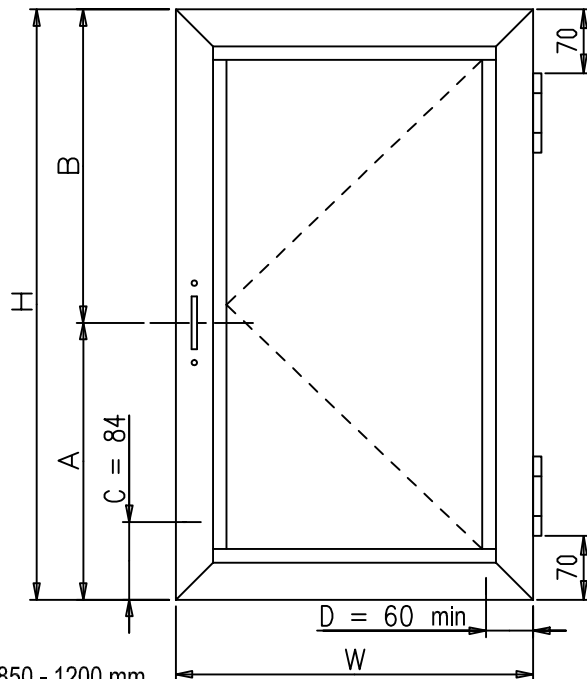
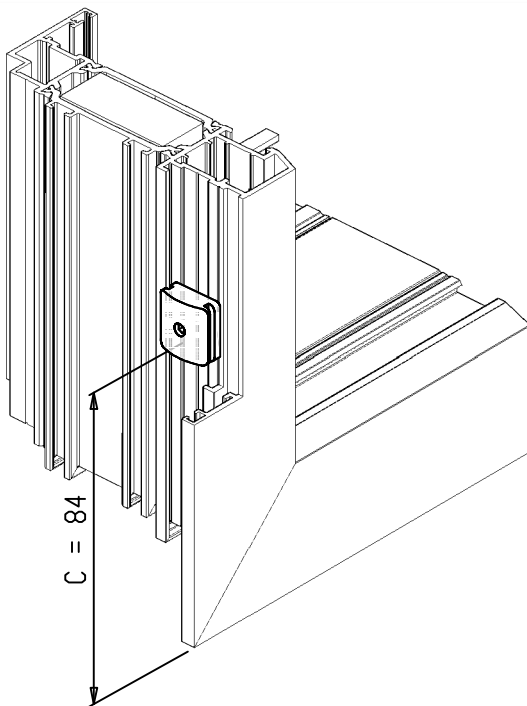
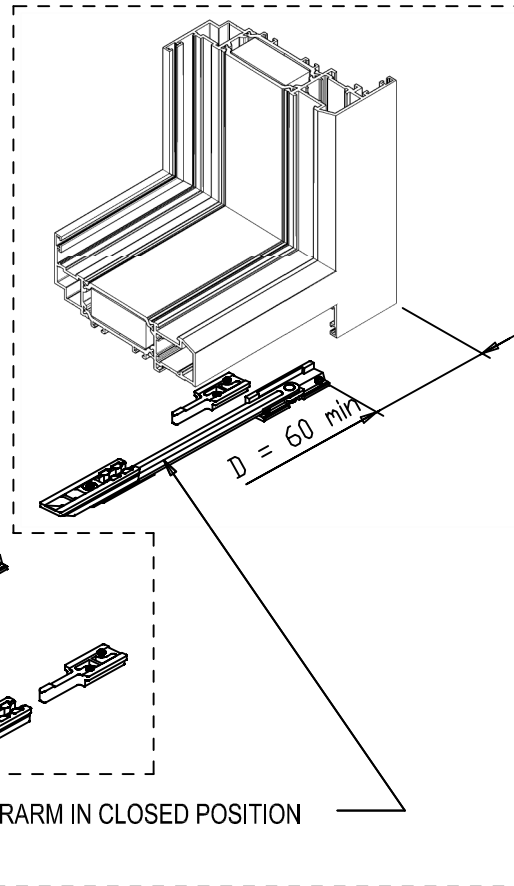
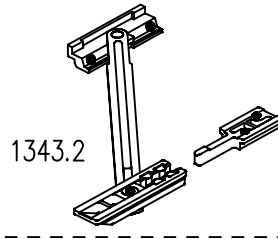
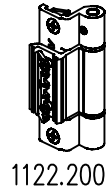
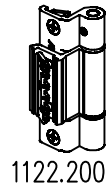
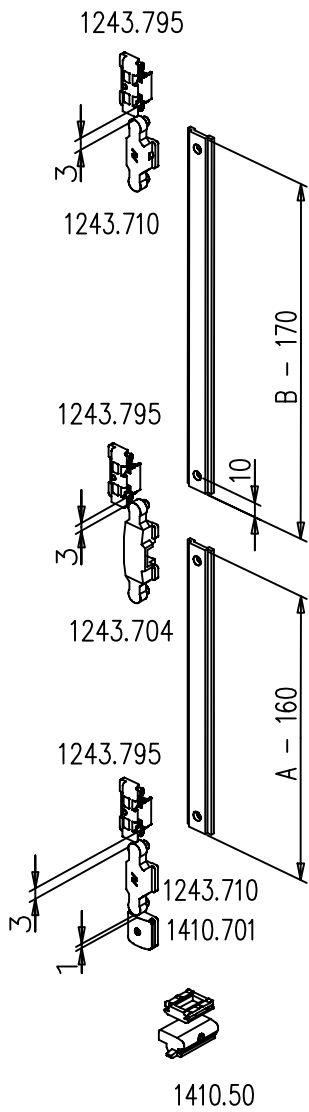
-outern side



HUOM: The seam should not be put on visible surfaces or places where it can make difficulties for gasket installation

N98si

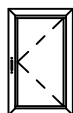
Max. 90 kg



W = 850 - 1200 mm
H = 400 - 1400 mm

01.04.2016

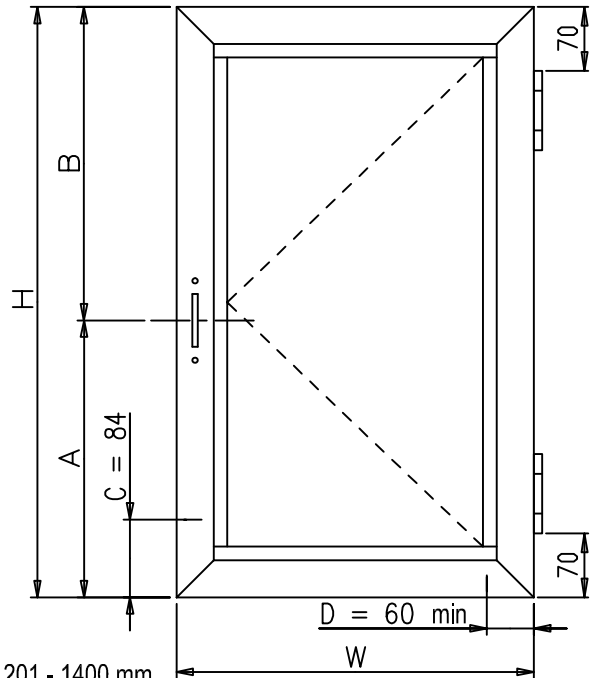
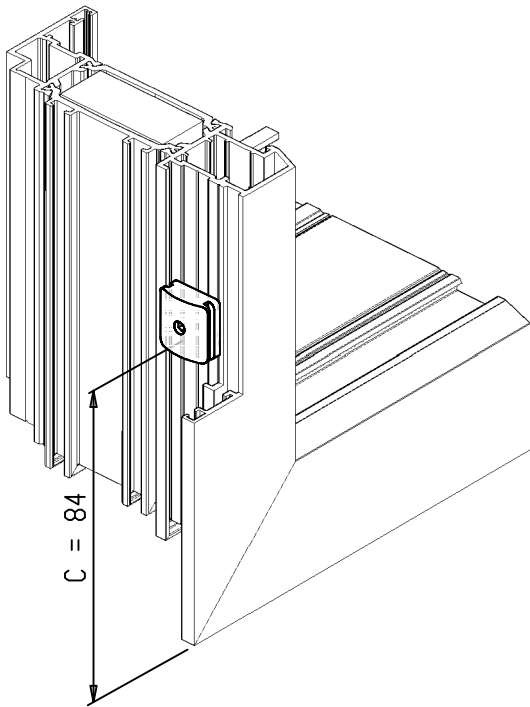
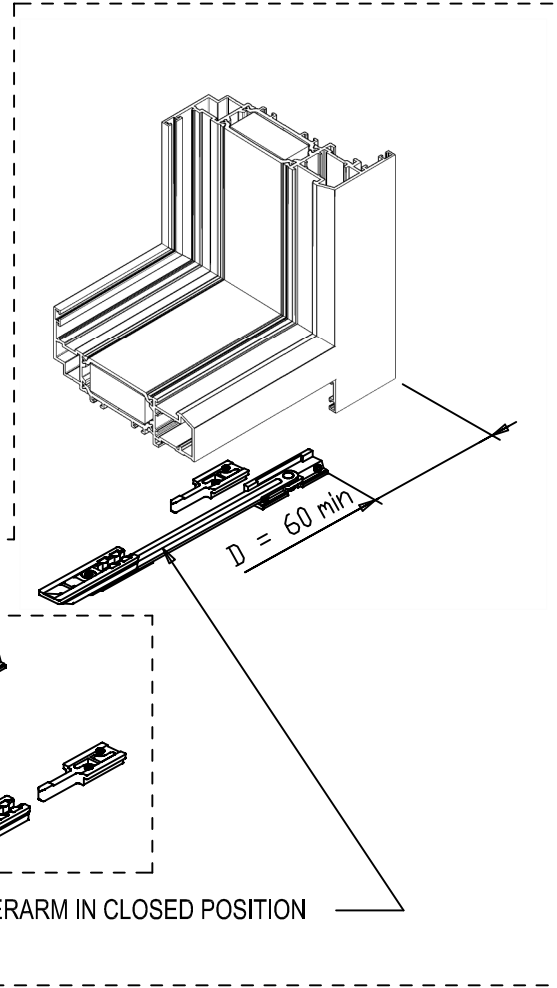
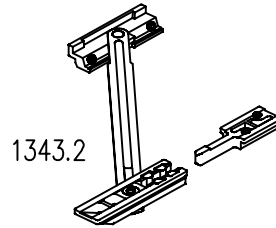
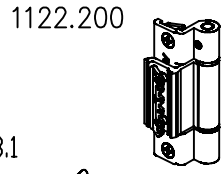
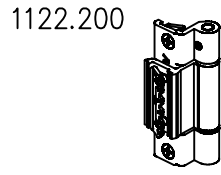
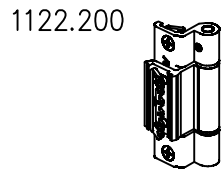
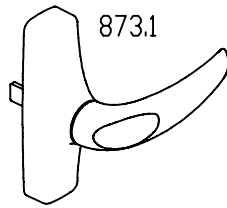
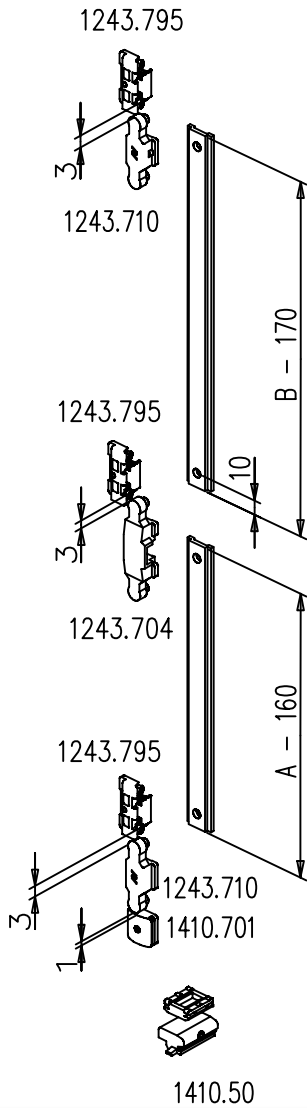
3.24 NOKIAN PROFILES



N98sl

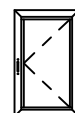
Fittings set R72-901, W=850-1200, H=400-1400

Max. 100 kg



W = 1201 - 1400 mm
 H = 1401 - 2400 mm

N98si



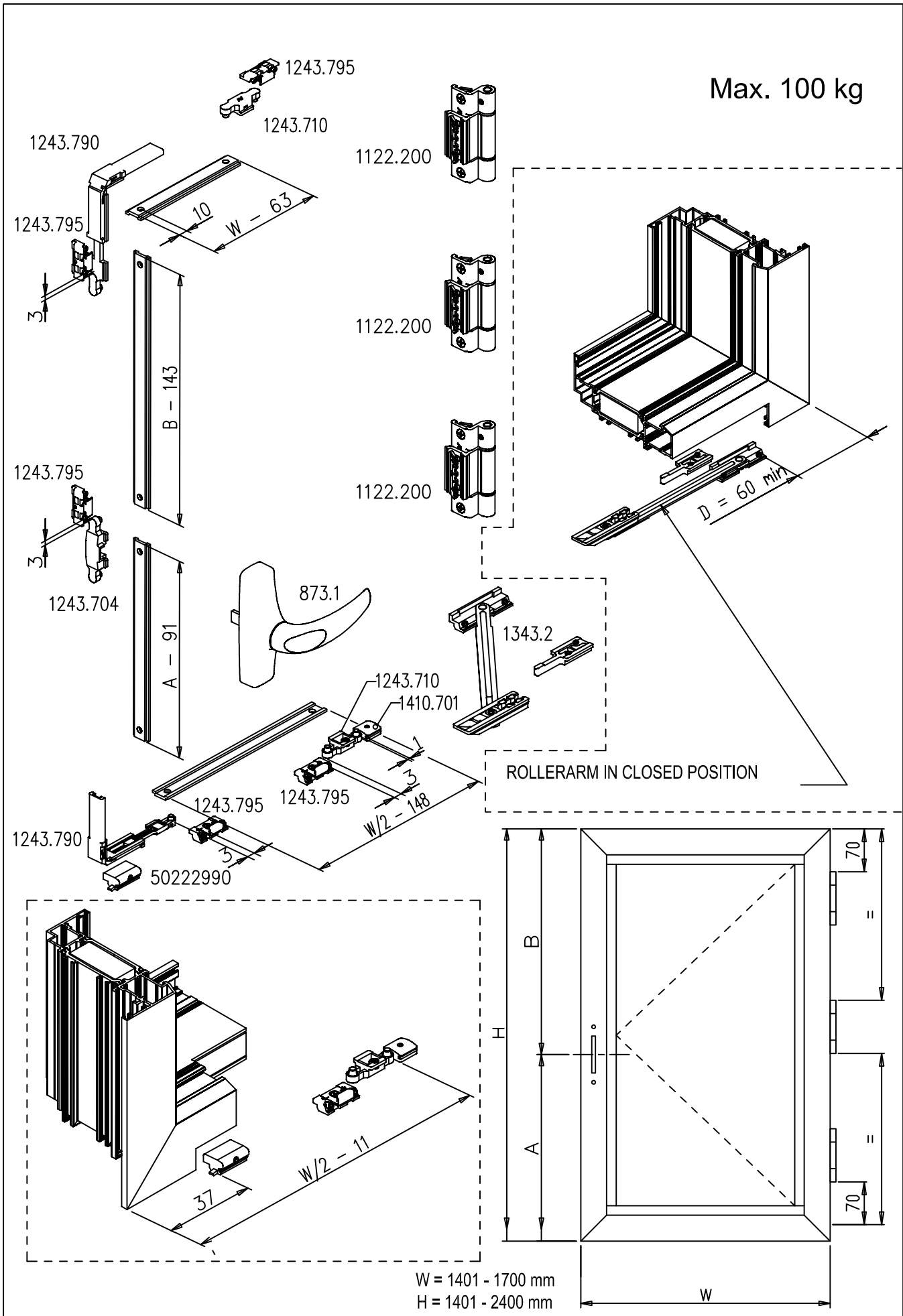
NOKIAN
 PROFILES



01.04.2016

3.25

Fittings set R72-902, W=1201-1400, H=1401-2400



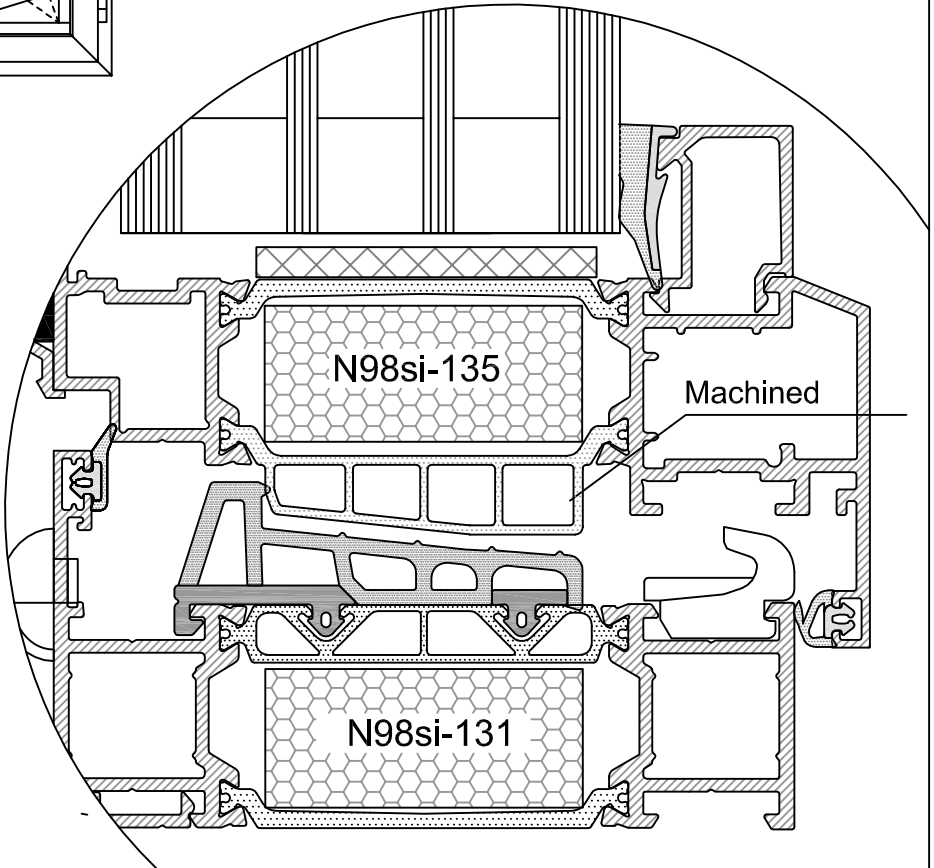
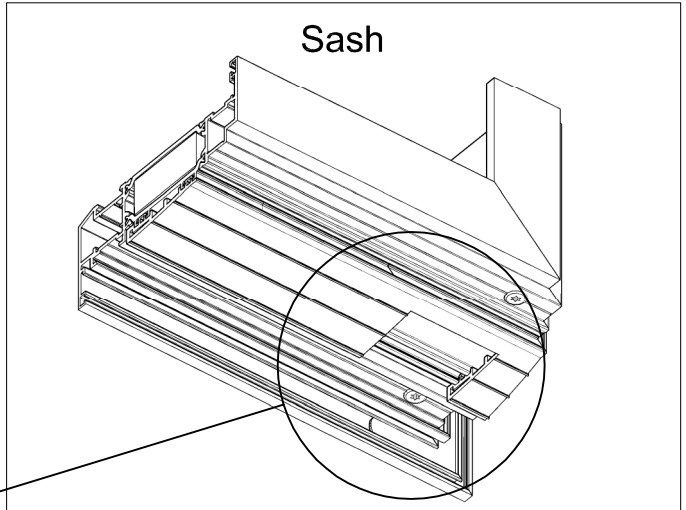
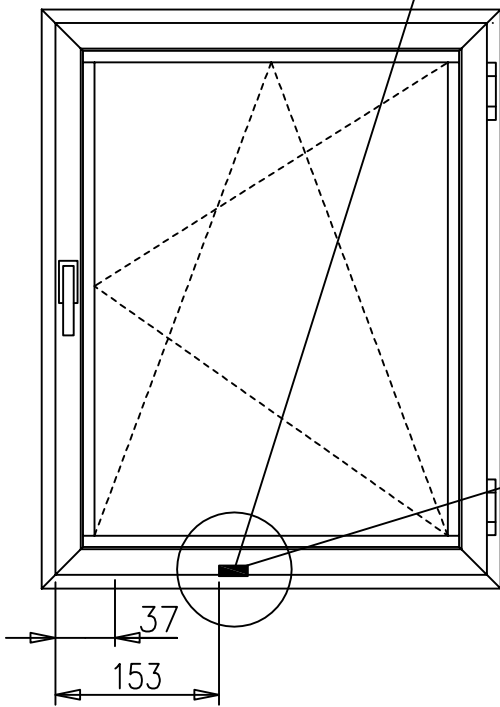
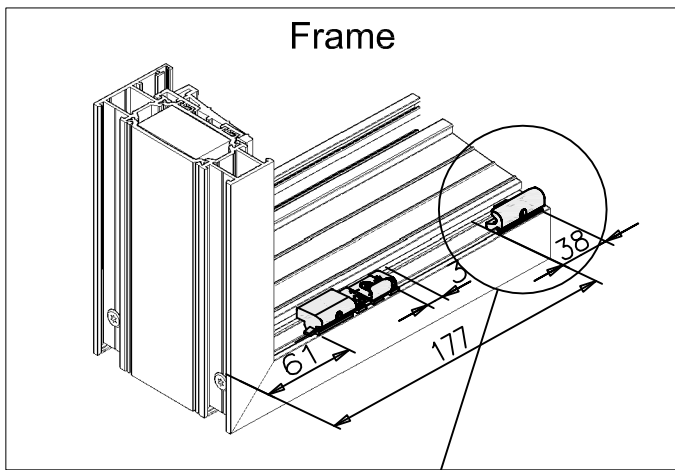
01.04.2016

3.26 NOKIAN PROFILES

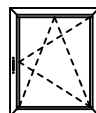


N98si

Fittings set R72-903, W=1401-1700, H=1401-2400



N98si



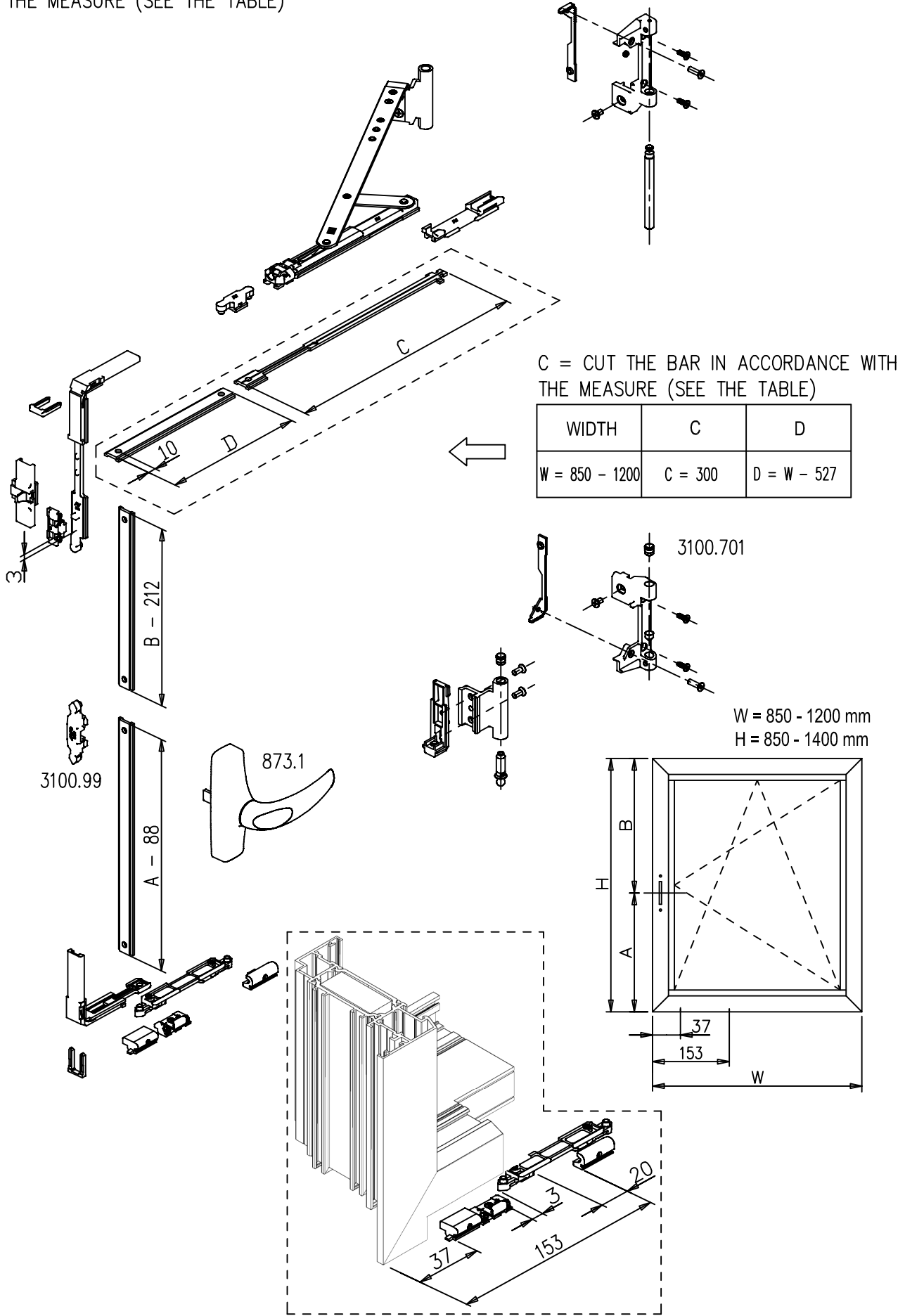
NOKIAN
PROFILES

01.04.2016

3.27

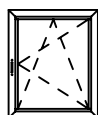
C = CUT THE BAR IN ACCORDANCE WITH THE MEASURE (SEE THE TABLE)

Max. 150 kg



01.04.2016

3.28 **NOKIAN**
PROFILES



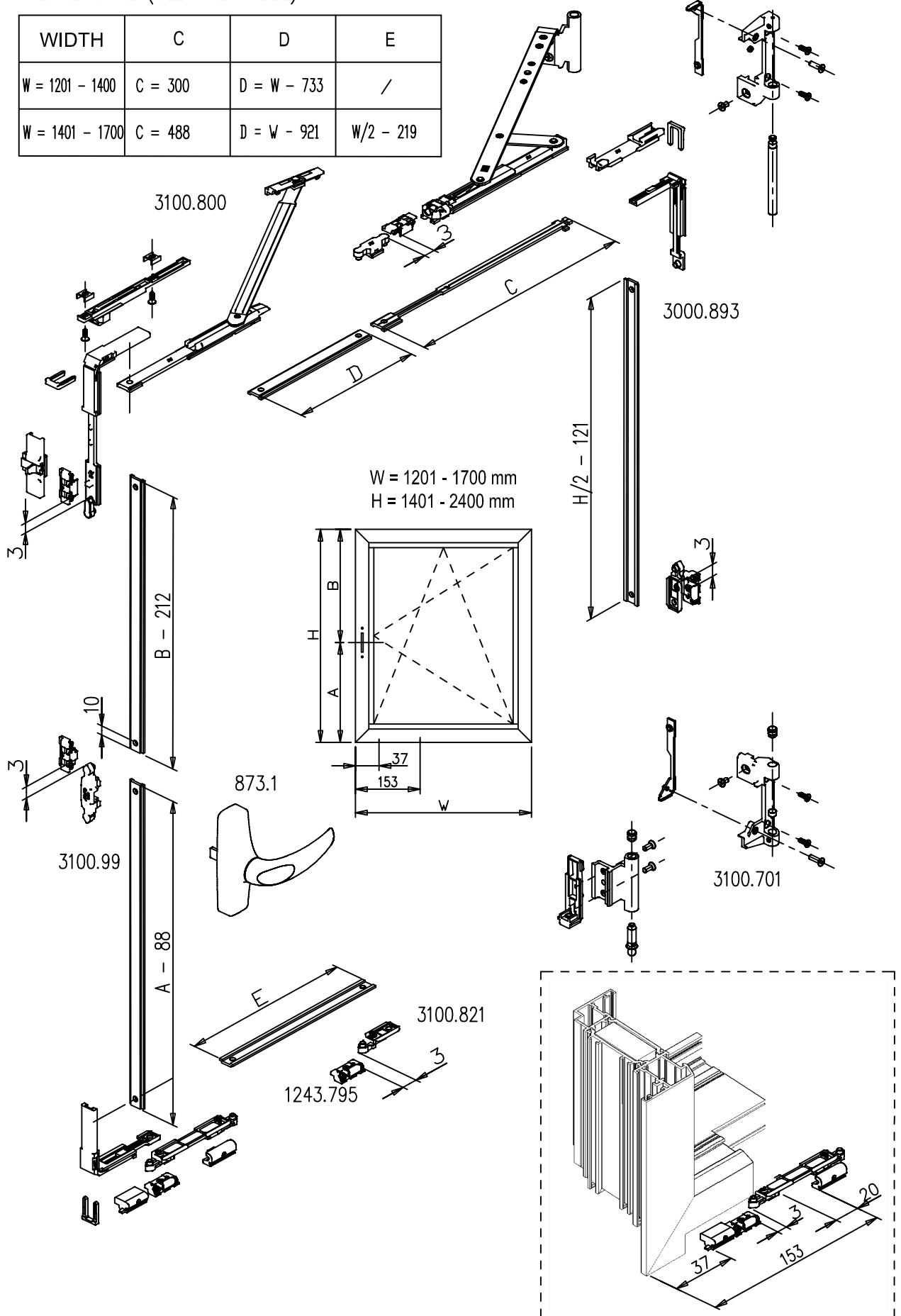
N98si

Fittings set R72-905, W=850-1200, H=850-2400

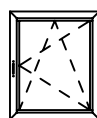
C = CUT THE BAR IN ACCORDANCE WITH THE MEASURE (SEE THE TABLE)

Max. 150 kg

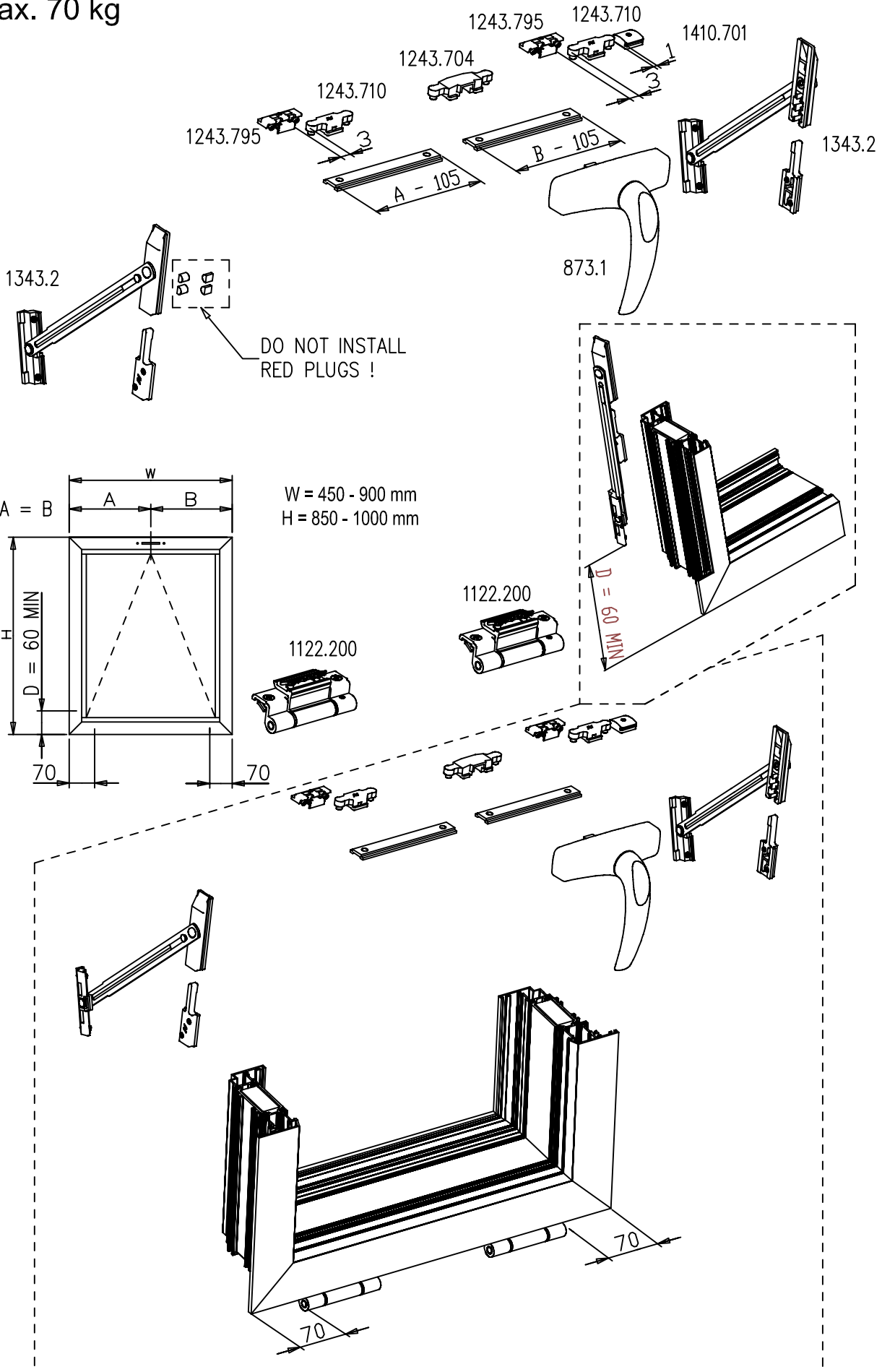
WIDTH	C	D	E
W = 1201 - 1400	C = 300	D = W - 733	/
W = 1401 - 1700	C = 488	D = W - 921	W/2 - 219



N98si



Max. 70 kg



01.04.2016

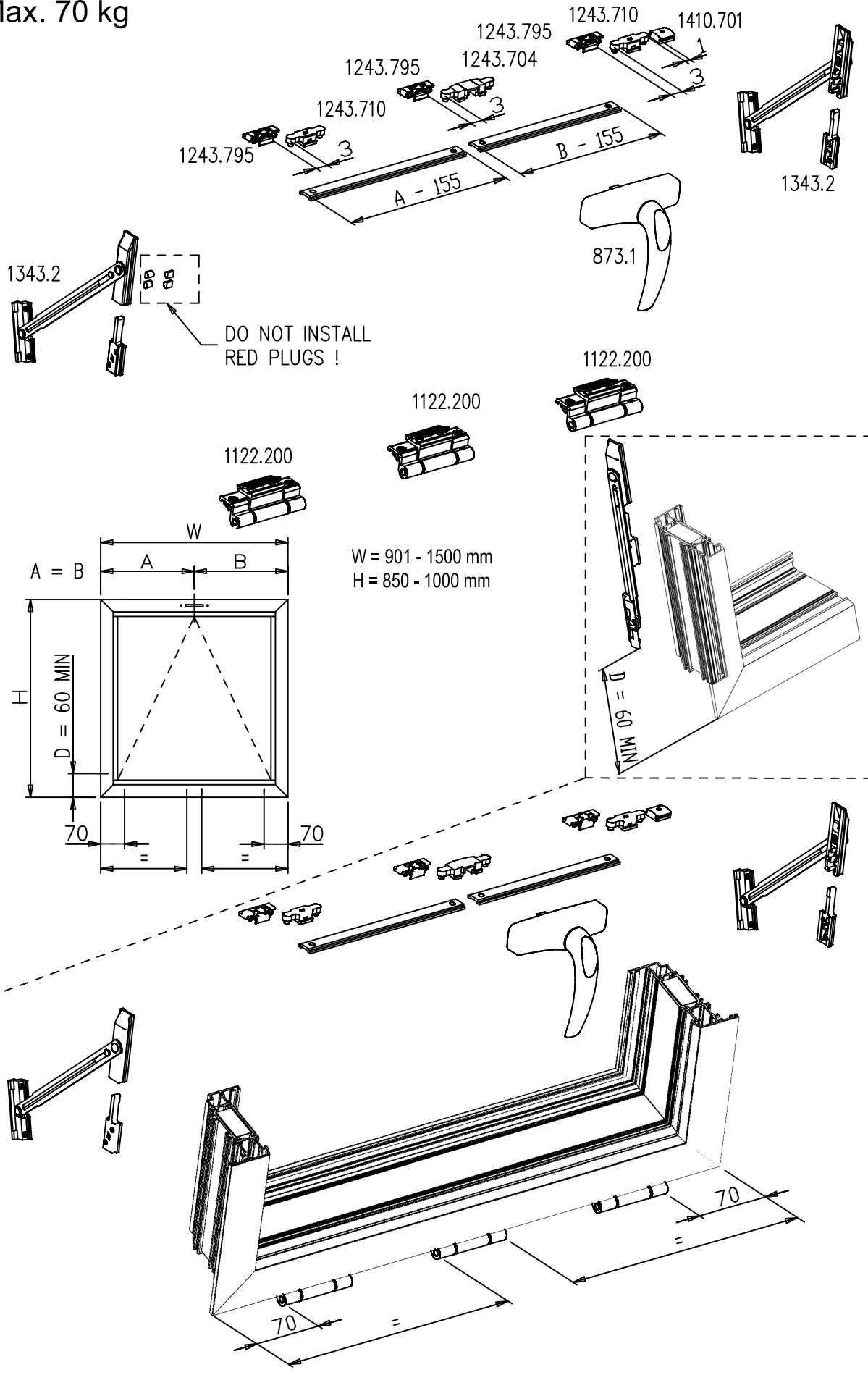
3.30 **NOKIAN**
PROFILES



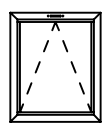
N98si

Fittings set R72-907, W=450-900, H=850-1000

Max. 70 kg



N98sl



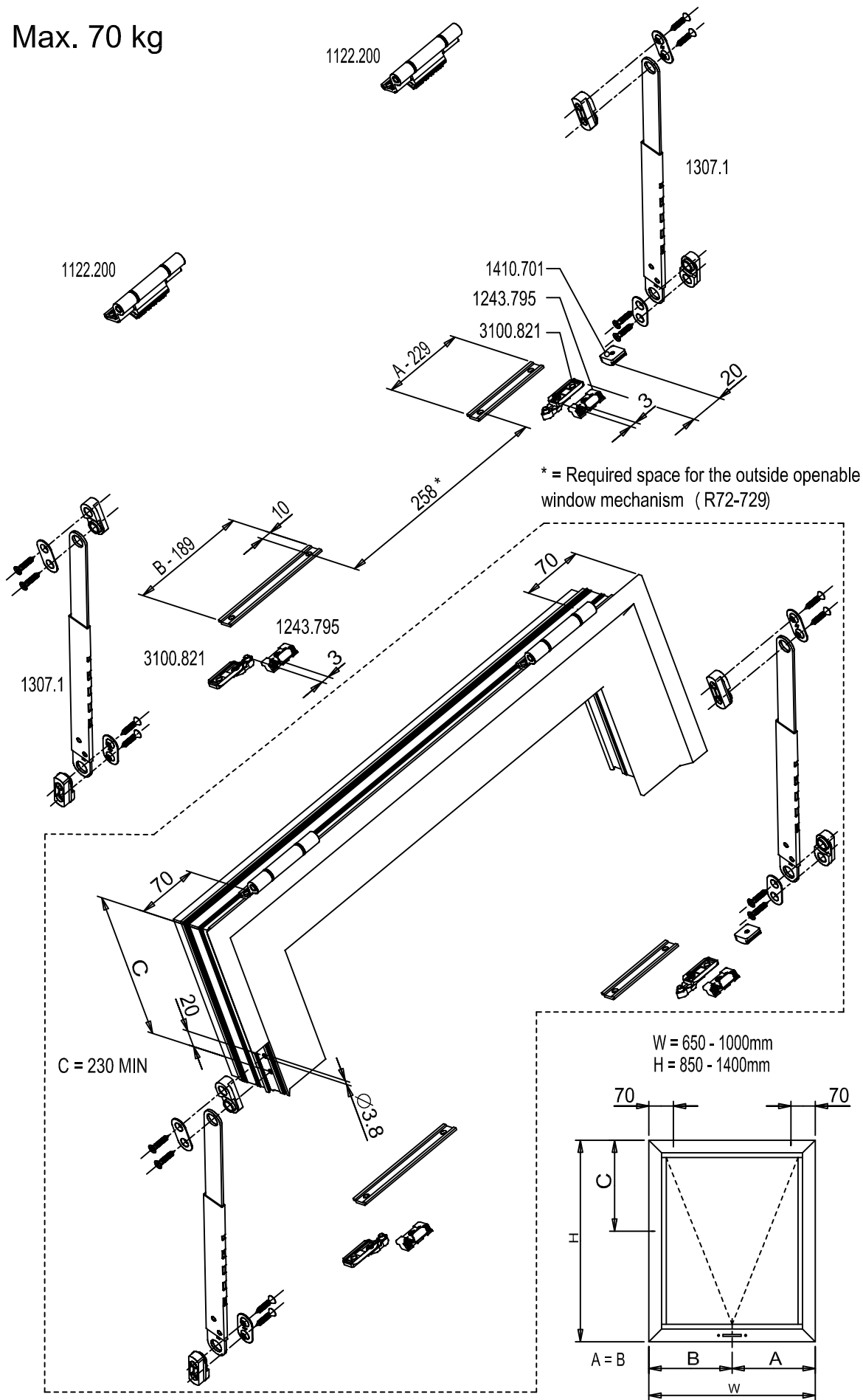
NOKIAN
PROFILES

01.04.2016

3.31

Fittings set R72-908, W=901-1500, H=850-1000

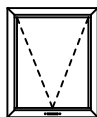
Max. 70 kg



01.04.2016

3.32

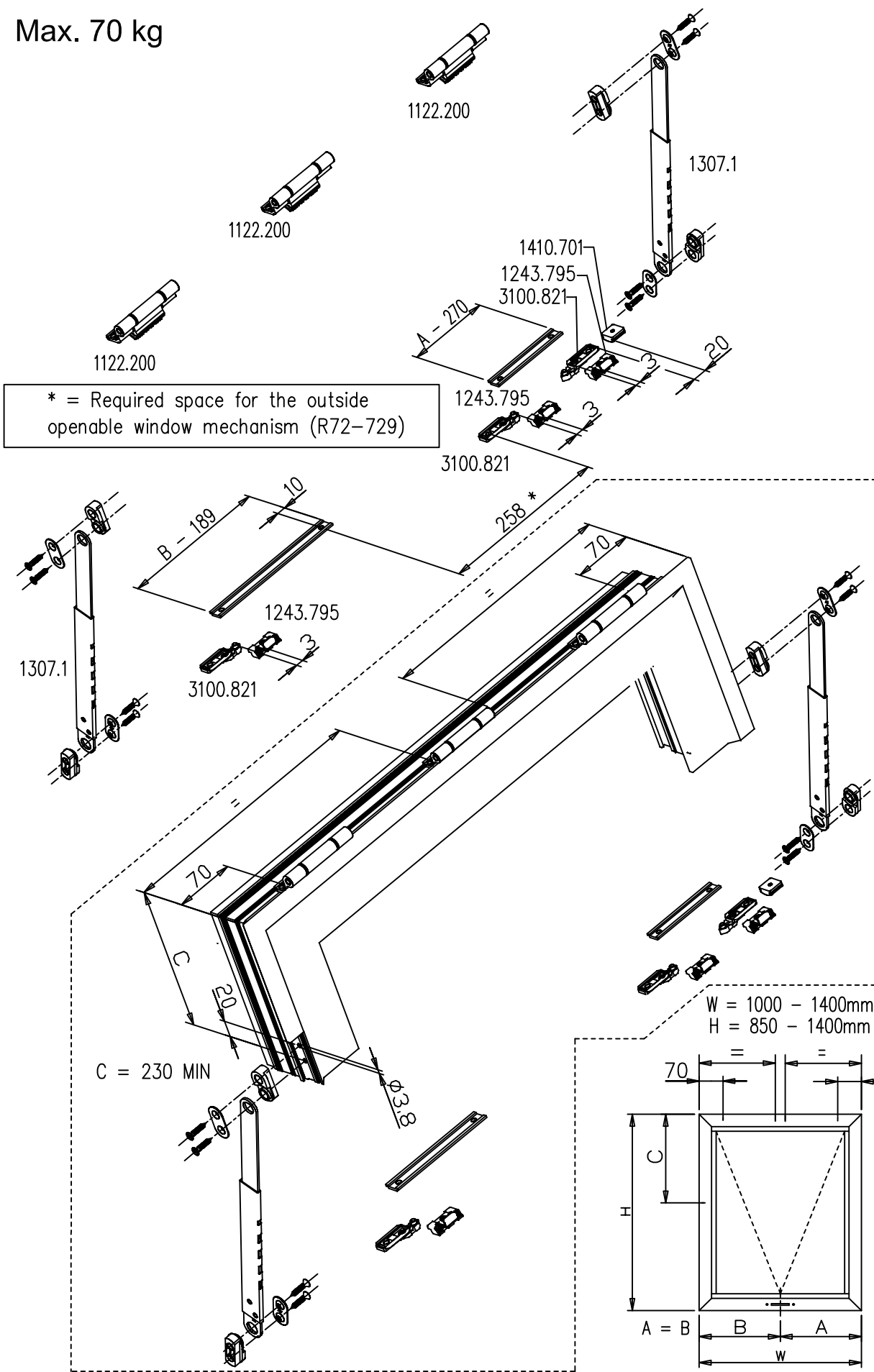
NOKIAN
PROFILES



N98si

Fittings set R72-910, W=650-1000, H=850-1400

Max. 70 kg



N98si

Fittings set R72-911, W=1000-1400, H=850-1400

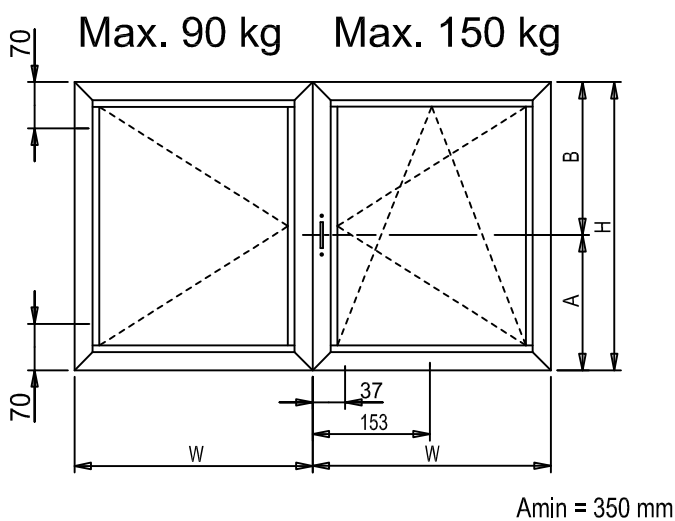
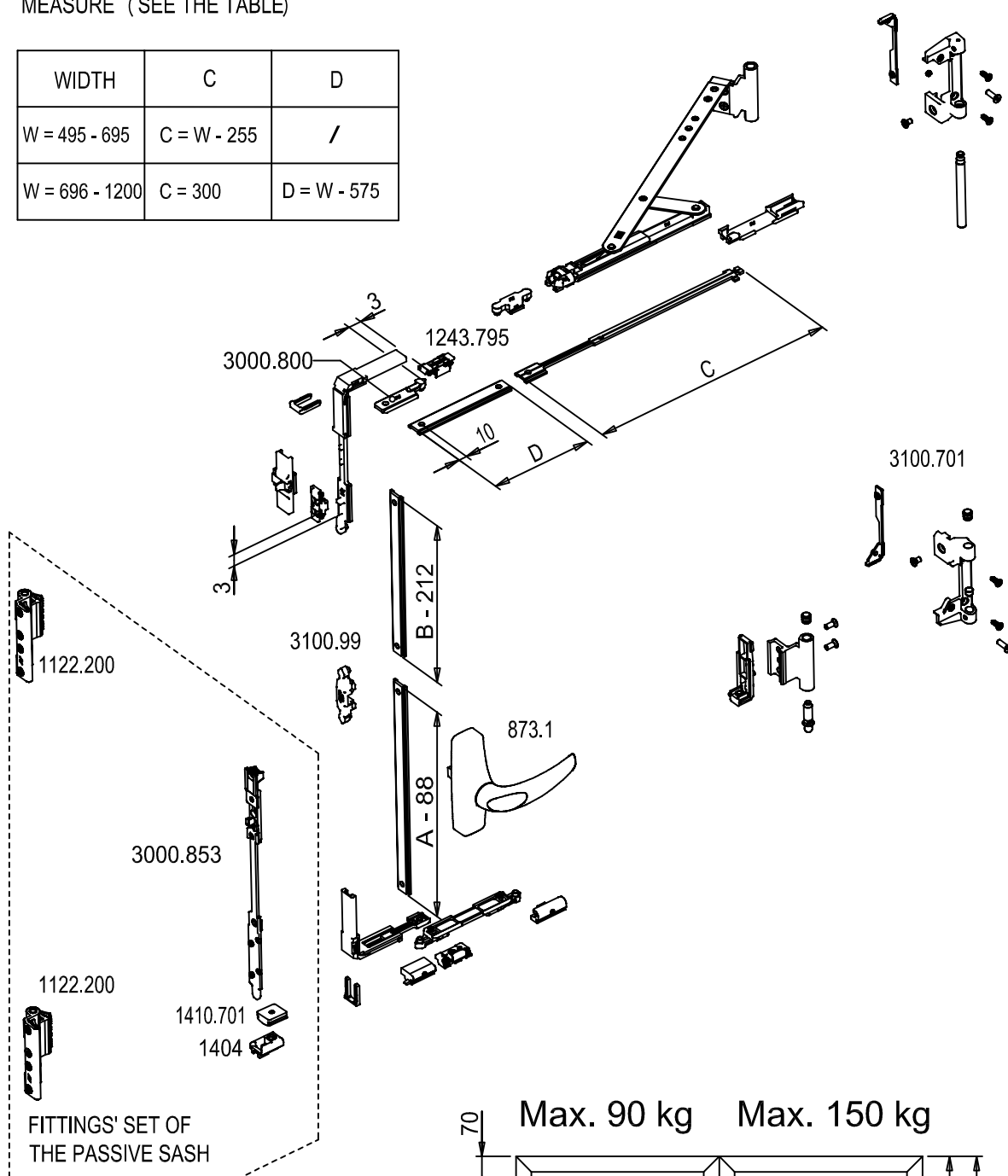
NOKIAN
PROFILES

01.04.2016

3.33

C = CUT THE BAR IN ACCORDANCE WITH THE MEASURE (SEE THE TABLE)

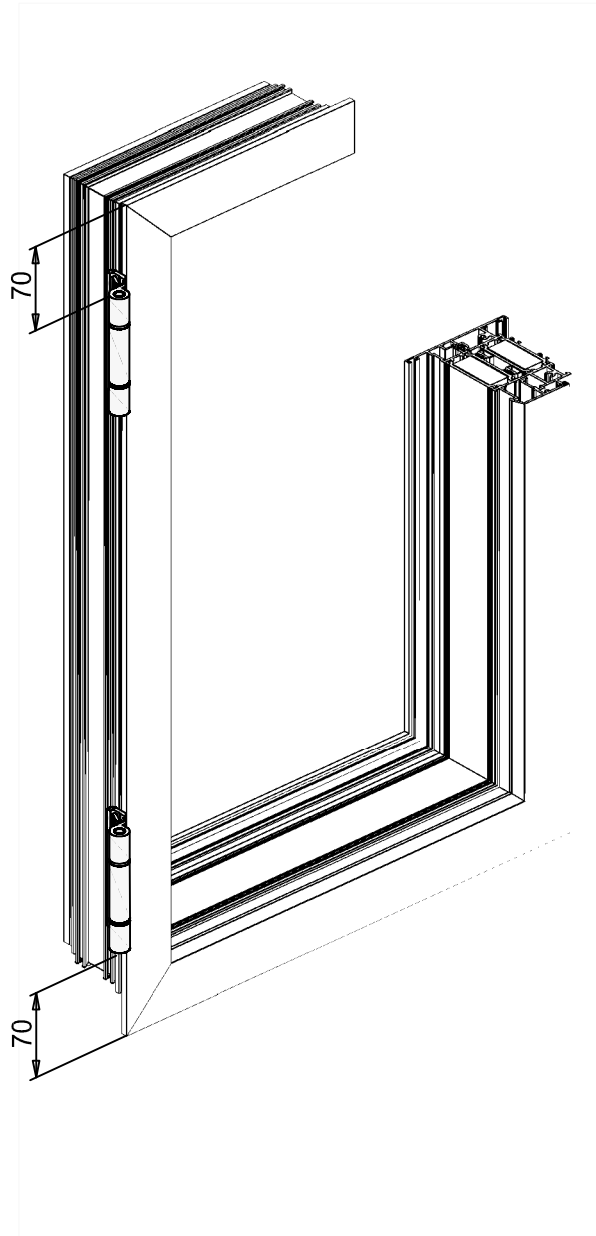
WIDTH	C	D
W = 495 - 695	C = W - 255	/
W = 696 - 1200	C = 300	D = W - 575



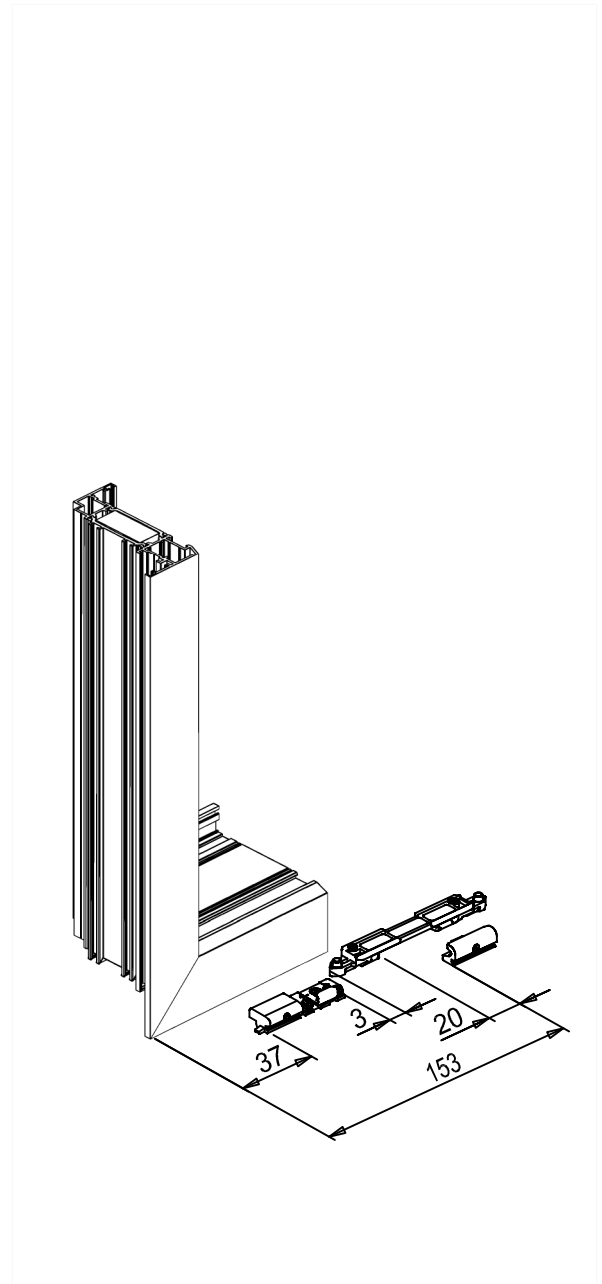
01.04.2016

PASSIVE SASH:

TILT AND TURN SASH:

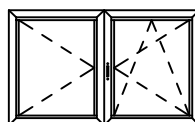


DIMENSIONS FOR THE HINGES' FASTENING



DIMENSIONS FOR THE LOCKING POINTS' FASTENING

N98_{SI}



NOKIAN
PROFILES

01.04.2016

3.35

MAX. SIZES OF SASH

W = 700 - 1700 mm

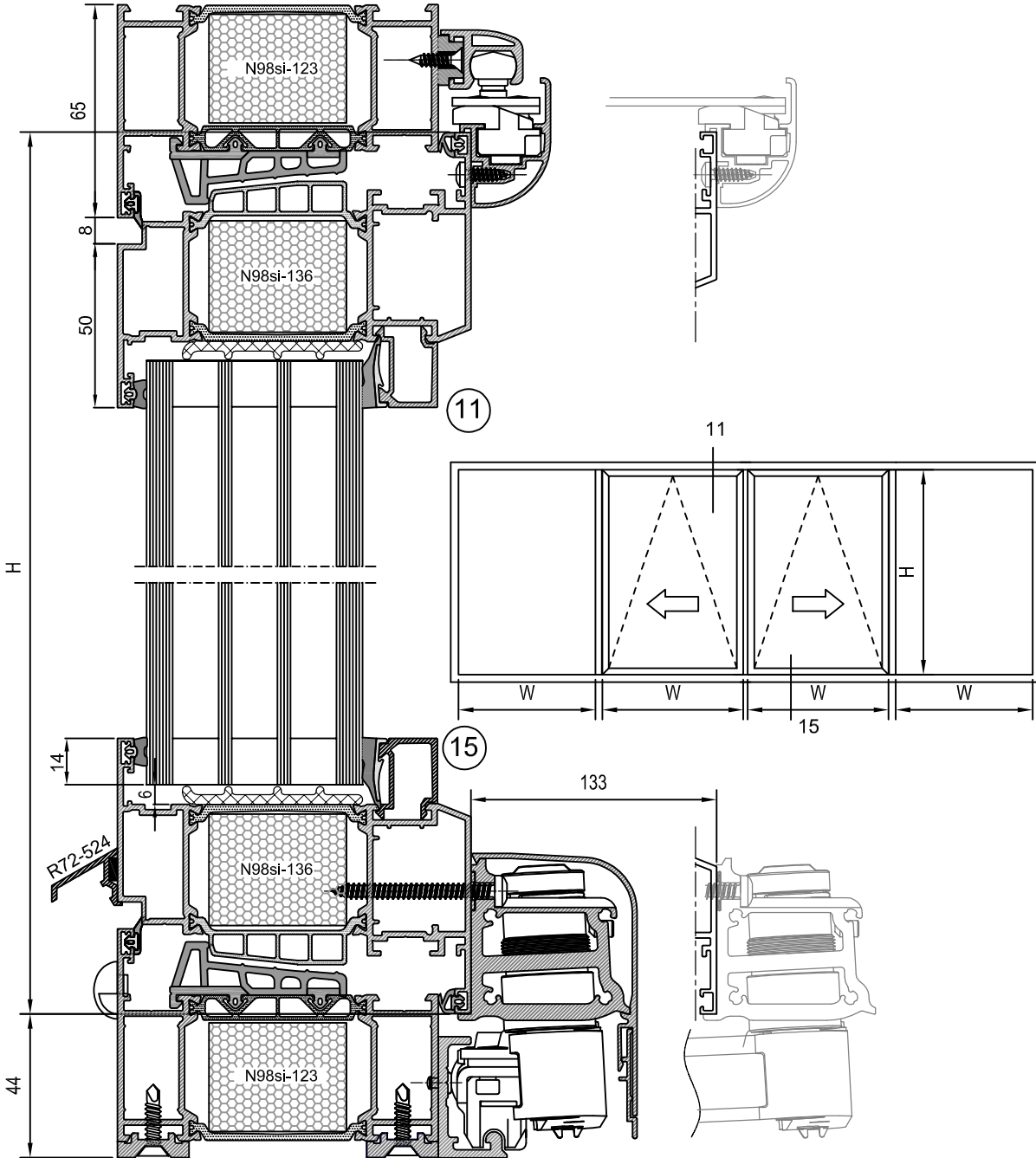
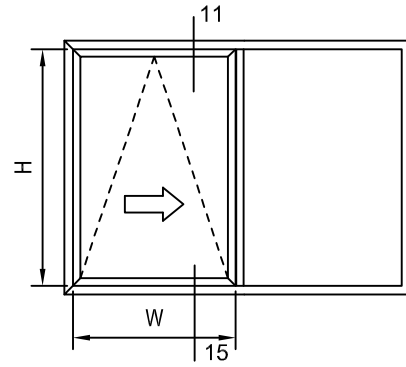
H = 850 - 2700 mm

Sash max. weight 150 kg

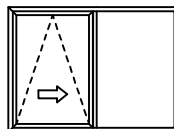
Fittings of the sliding window consist of the following accessories:

Code:	Accessory:	pcs/sash:
2401.1	Kit of left hand rollers	Choose the needed side 1 pcs
2401.2	Kit of right hand rollers	
2406	Guides and covers (depends on the sash width)	1 kpl
2410 or 3200.620	Basic fittings' set	1 kpl
-	Additional parts (defined by the sash width and weight)	*

* defined in accordance with the order

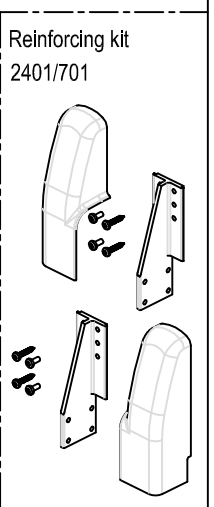
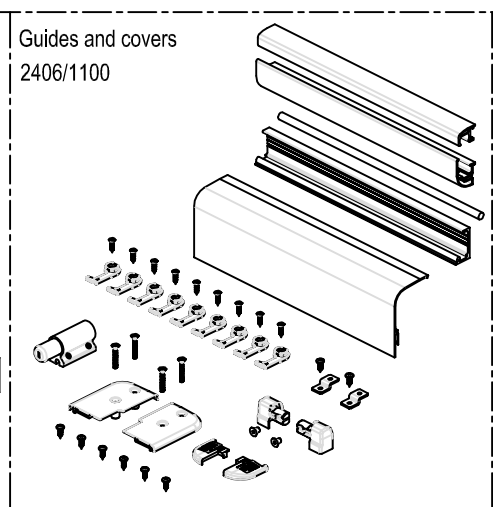
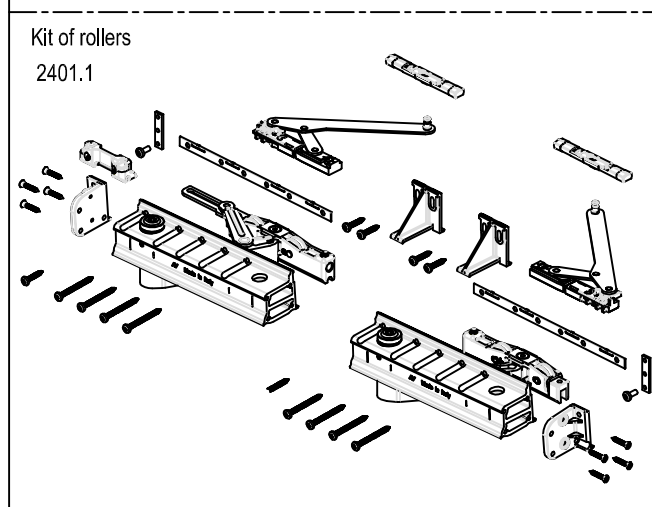
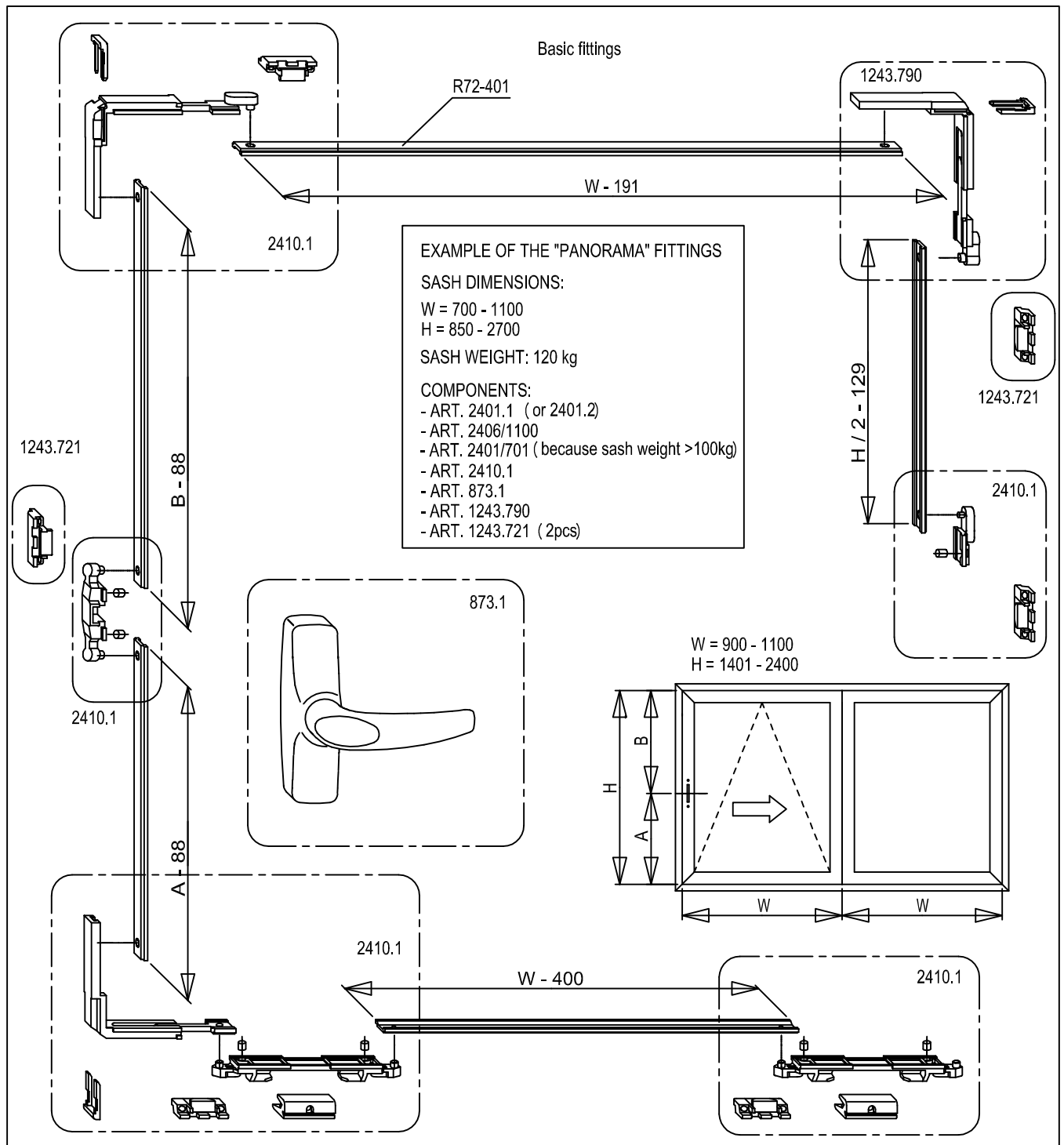


01.04.2016

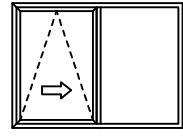


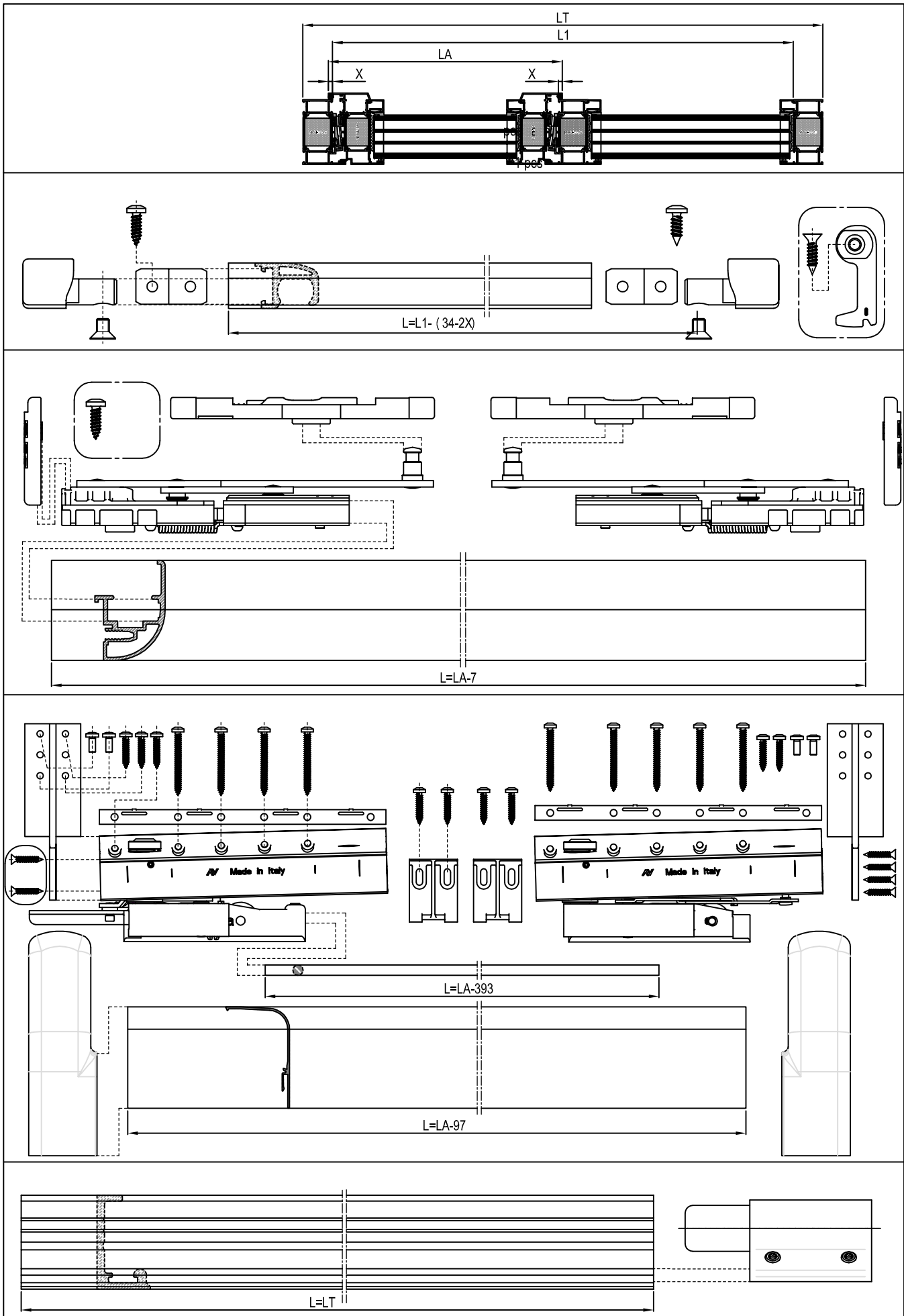
N98si

N98si Panorama sliding window fittings, W=700-1700, H=850-2700



N98si

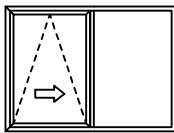




01.04.2016

3.38

NOKIAN
PROFILES

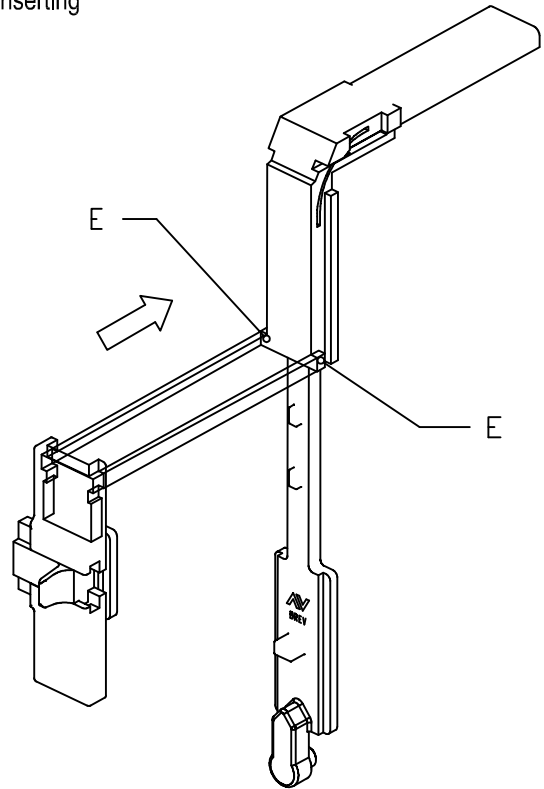


N98si

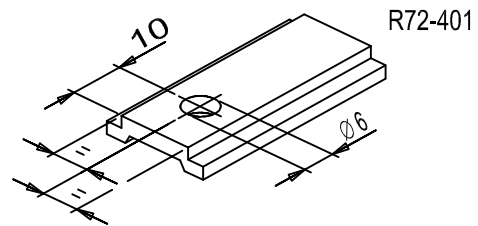
Panorama sliding window fittings. Specification and cutting measures

TURN/TILT WINDOWS /CORNER TRANSMISSION CONNECTION:

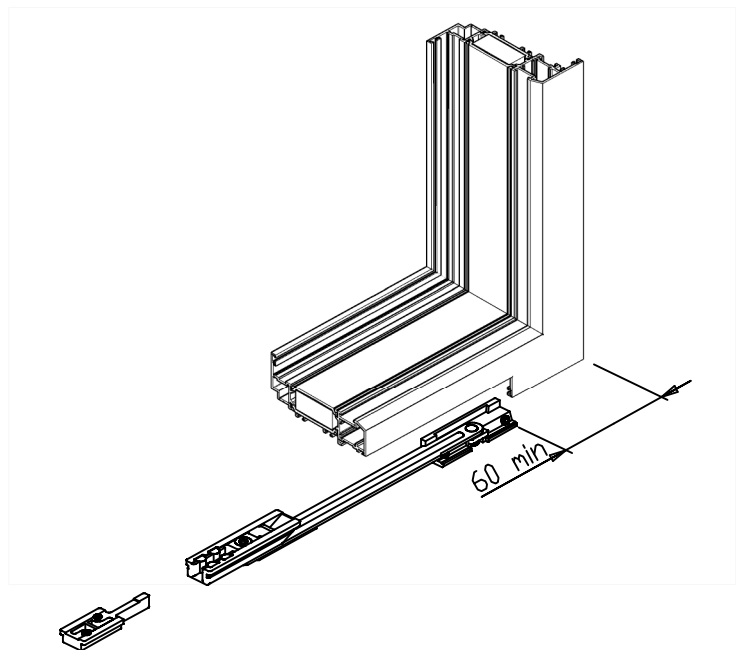
-Connect the false manouvre device to the corner transmission, inserting lugs E into appropriate recesses of the safety device body



Machining of R72-401 connection rod:



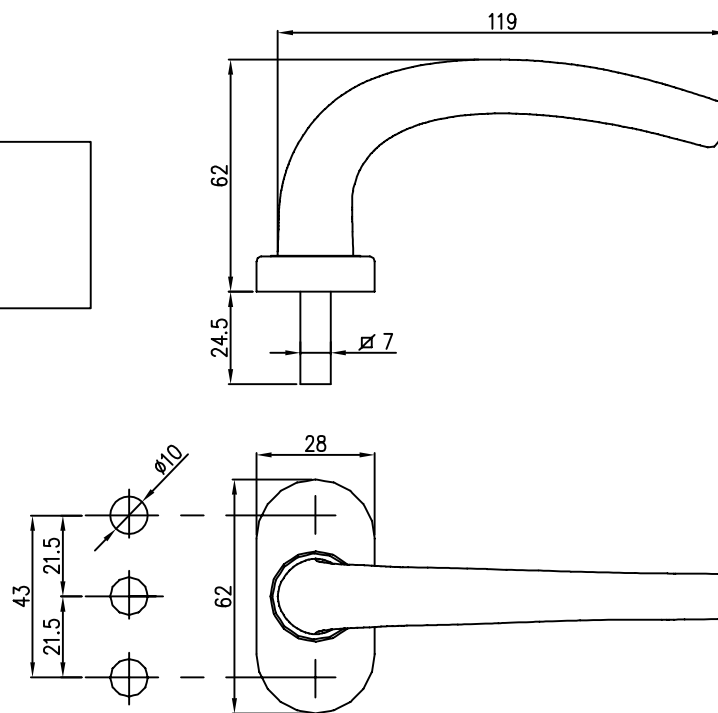
Installation of stay:



HANDLE 1604:

Gearbox to be used with the handle:
- 1200/7

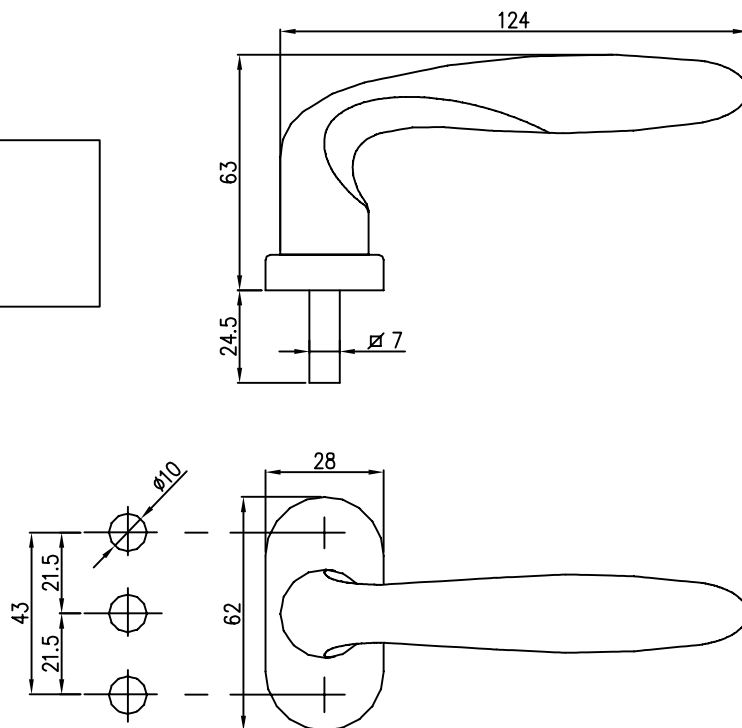
See page 3.42



HANDLE 1605:

Gearbox to be used with the handle:
- 1200/7

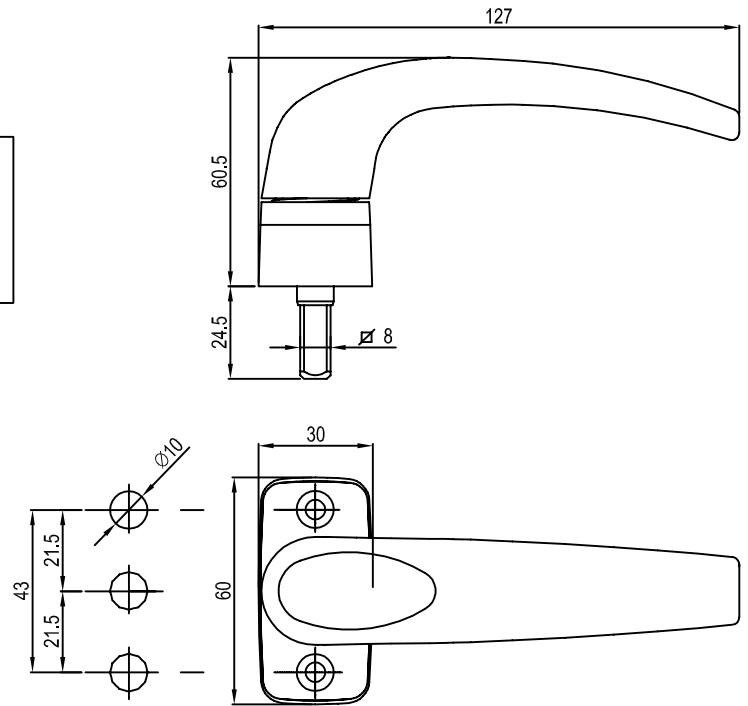
See page 3.42



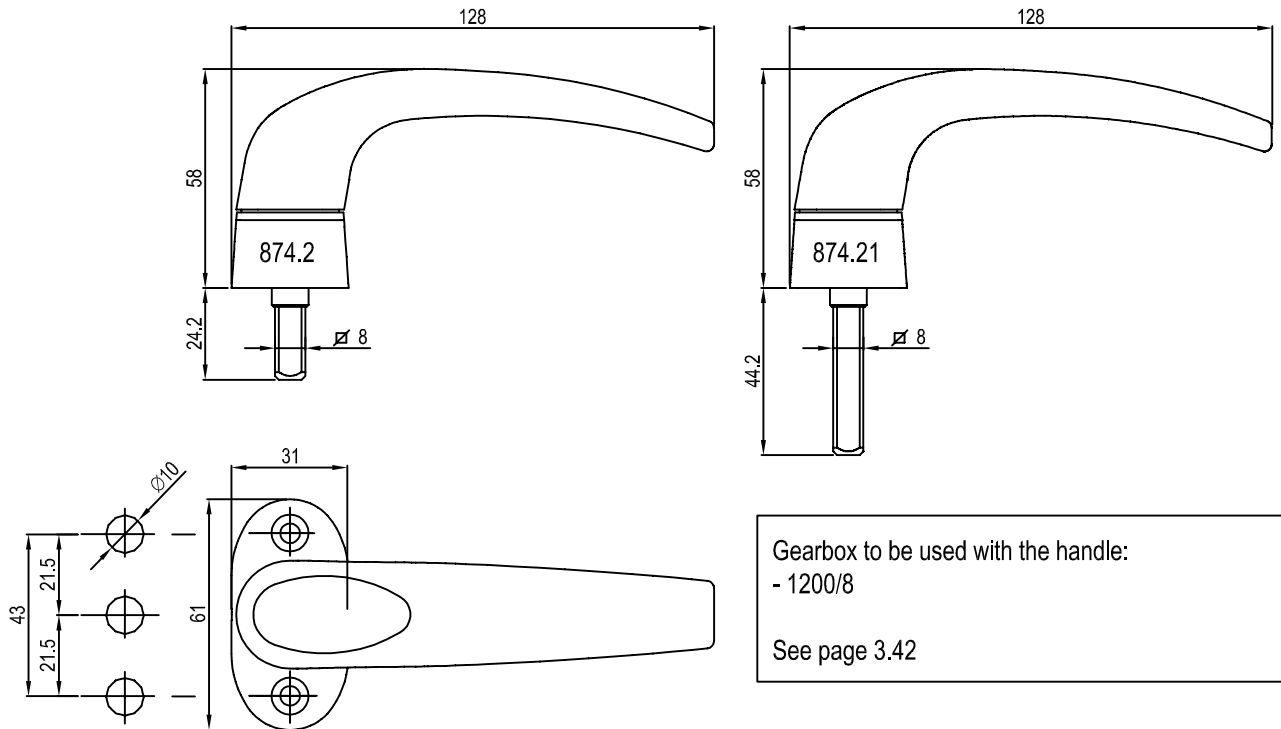
HANDLE 874.1:

Gearbox to be used with the handle:
- 1200/8

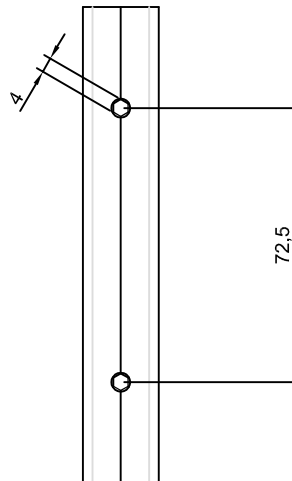
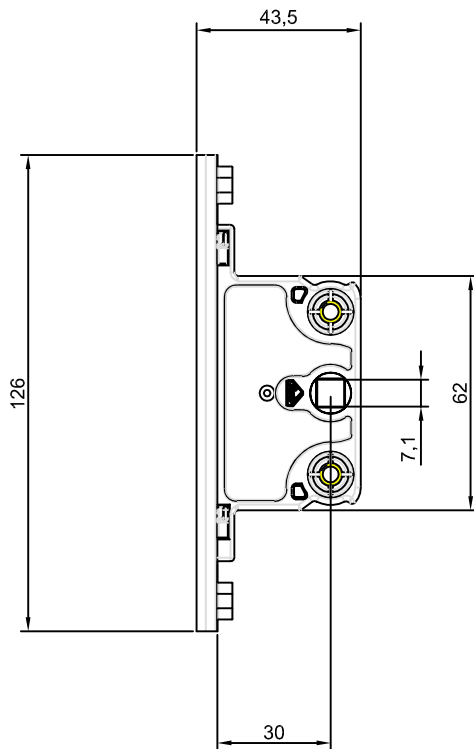
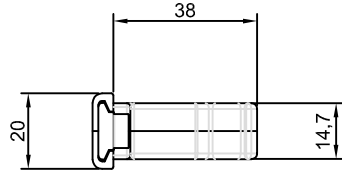
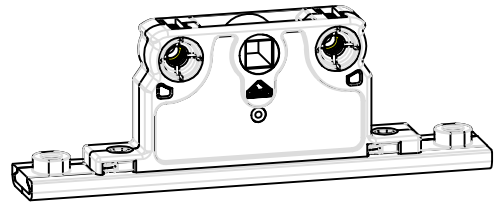
See page 3.42



HANDLES 874.2 & 874.21:



Gearbox to be used with the handle:
- 1200/8
See page 3.42



Roto 487493

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3.42

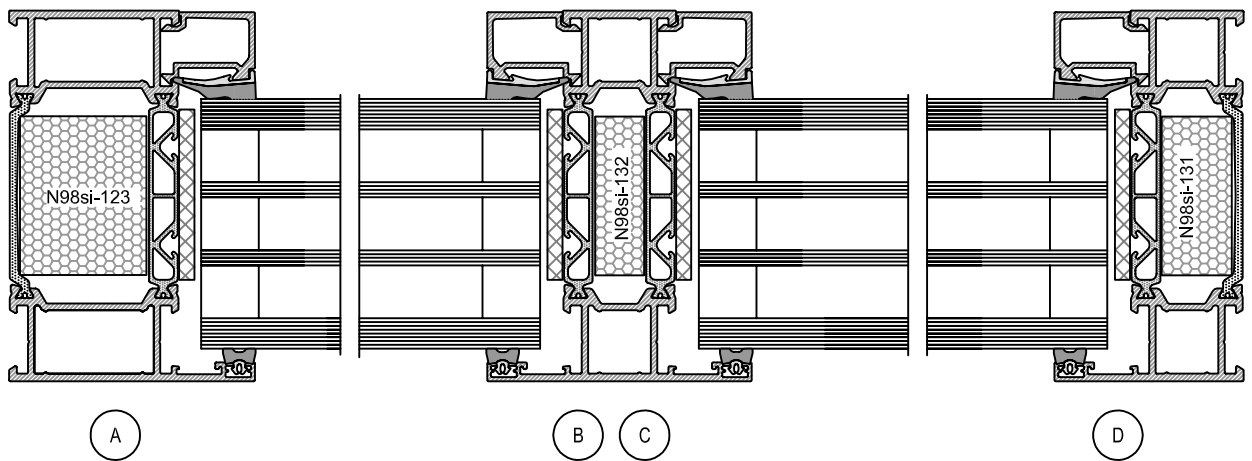
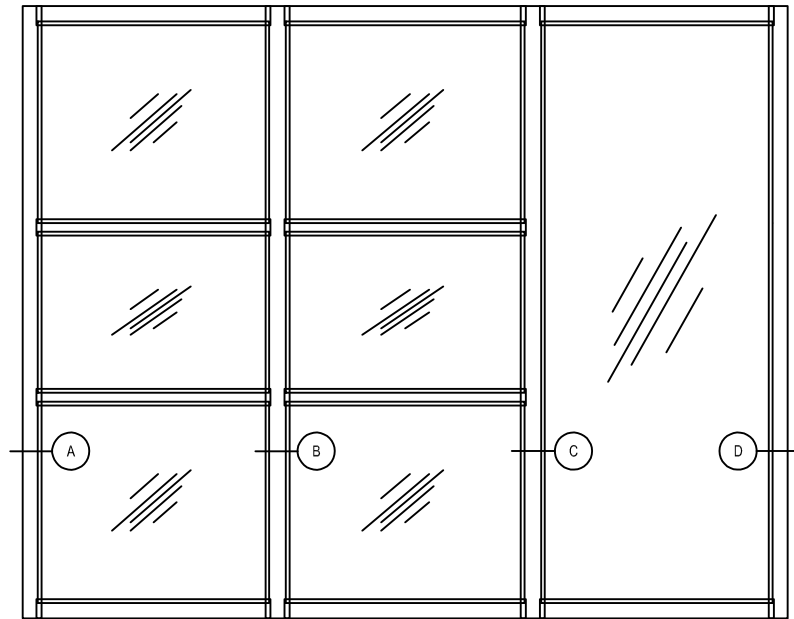
NOKIAN
PROFILES



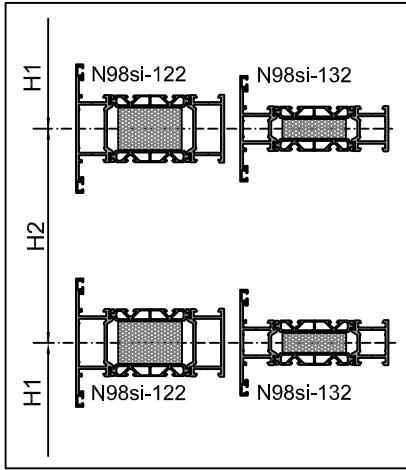
N98si

Hidden mechanisms for handles
Spindle 7 mm

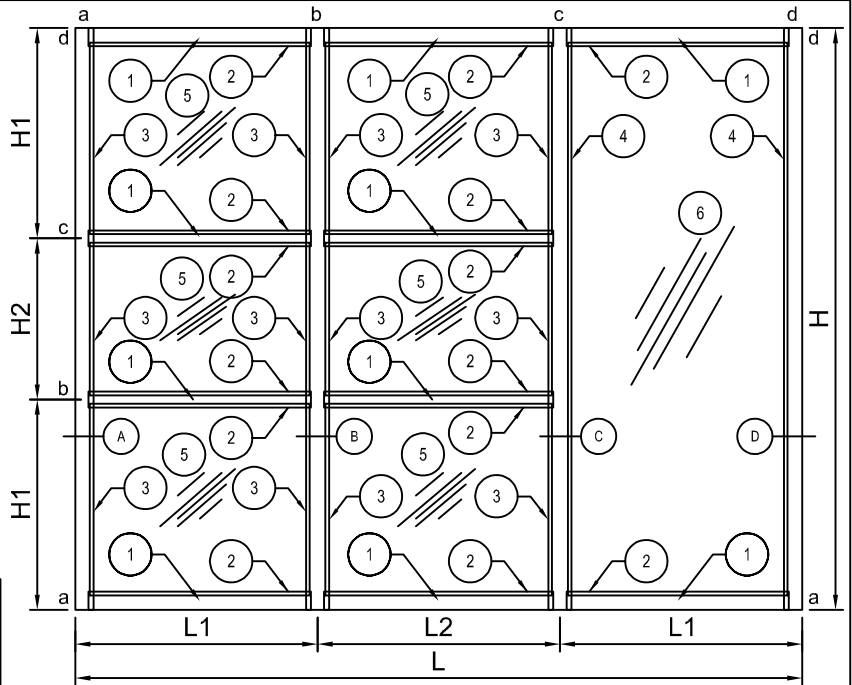
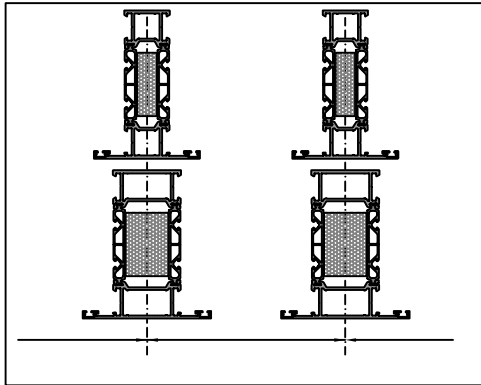
4. Wall



DIMENSIONS H1 & H2:

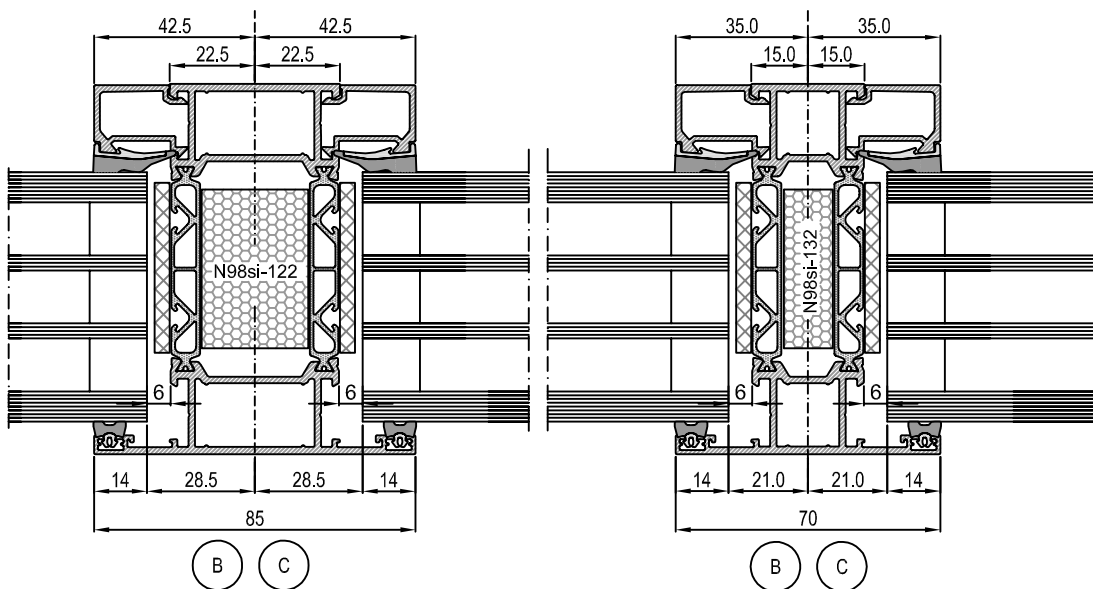
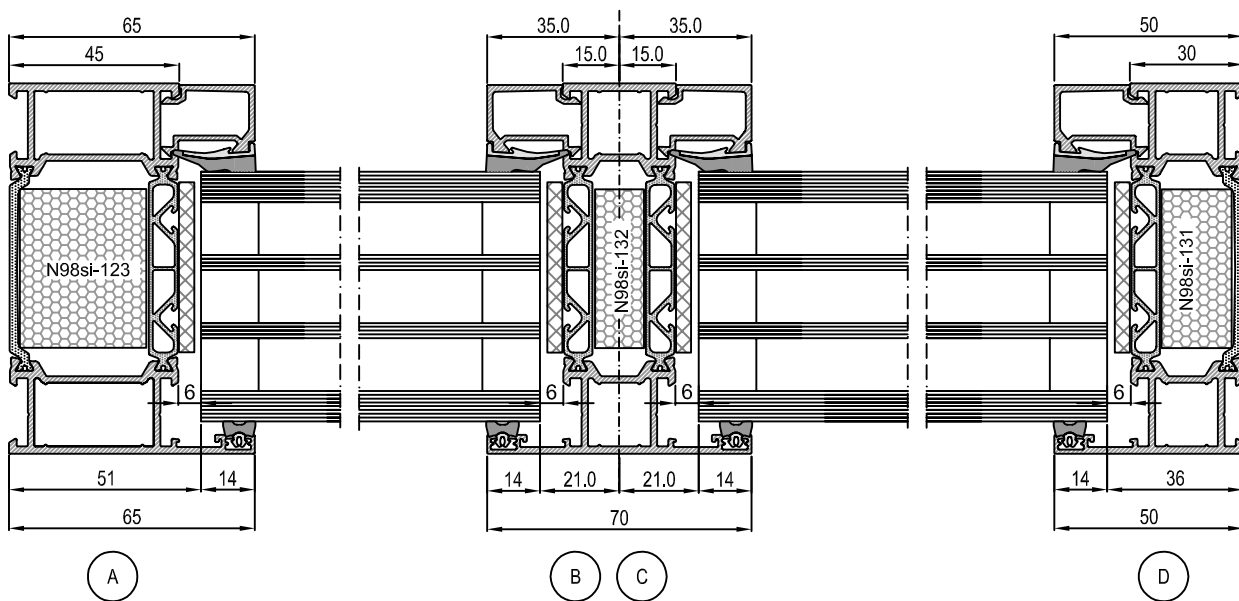
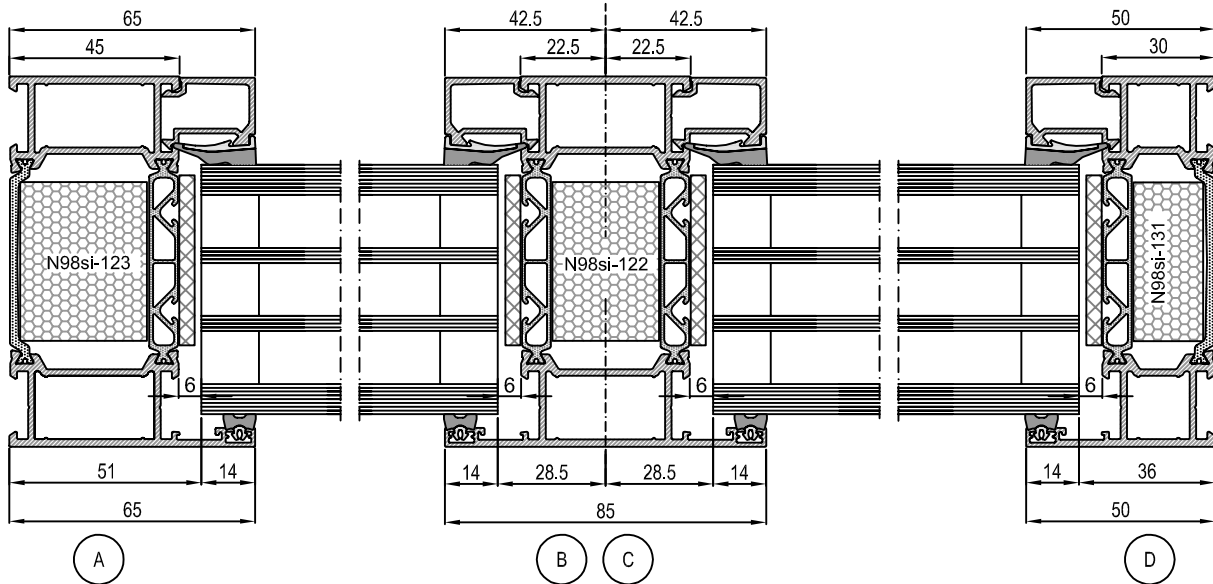


DIMENSIONS L1 & L2:



Horizontal and vertical cutting dimensions

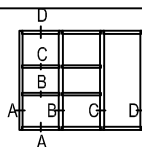
No:	Part:	Horizontal and vertical cutting dimensions						Corners:
		a, d		b		c		
		N98si-123	N98si-131	N98si-122	N98si-132	N98si-122	N98si-132	
1	Frame profiles:	N98si-123	L1-67.5	L1-52.5	L2-45	L2-37.5	L2-37.5	90 / 90°
		N98si-131	H1-67.5	H1-52.5	H2-45	H2-37.5	H2-37.5	
		N98si-122	L1-60	L1-60	L2-30	L2-30	L2-30	
		N98si-132	L1-45	L1-45	H2-30	H2-30	H2-30	
2,3	Glazing beads	N98si-123	L1-67.5	L1-52.5	L2-45	L2-37.5	L2-37.5	90 / 90°
		N98si-131	H1-107.5	H1-92.5	H2-85	H2-77.5	H2-77.5	
		N98si-122	L1-60	L1-60	L2-30	L2-30	L2-30	
		N98si-132	L1-45	L1-45	H2-70	H2-70	H2-70	
4	Glazing beads	H-130	H-100					90 / 90°
5	Glasses	N98si-123	L1-77.5	L1-62.5	L2-55	L2-47.5	L2-47.5	90 / 90°
		N98si-131	H1-77.5	H1-62.5	H2-55	H2-47.5	H2-47.5	
		N98si-122	L1-70	L1-70	L2-40	L2-40	L2-40	
		N98si-132	L1-55	L1-55	H2-40	H2-40	H2-40	
6	Glasses	H-100	H-70					90 / 90°
		H-85						



01.04.2016

4.2

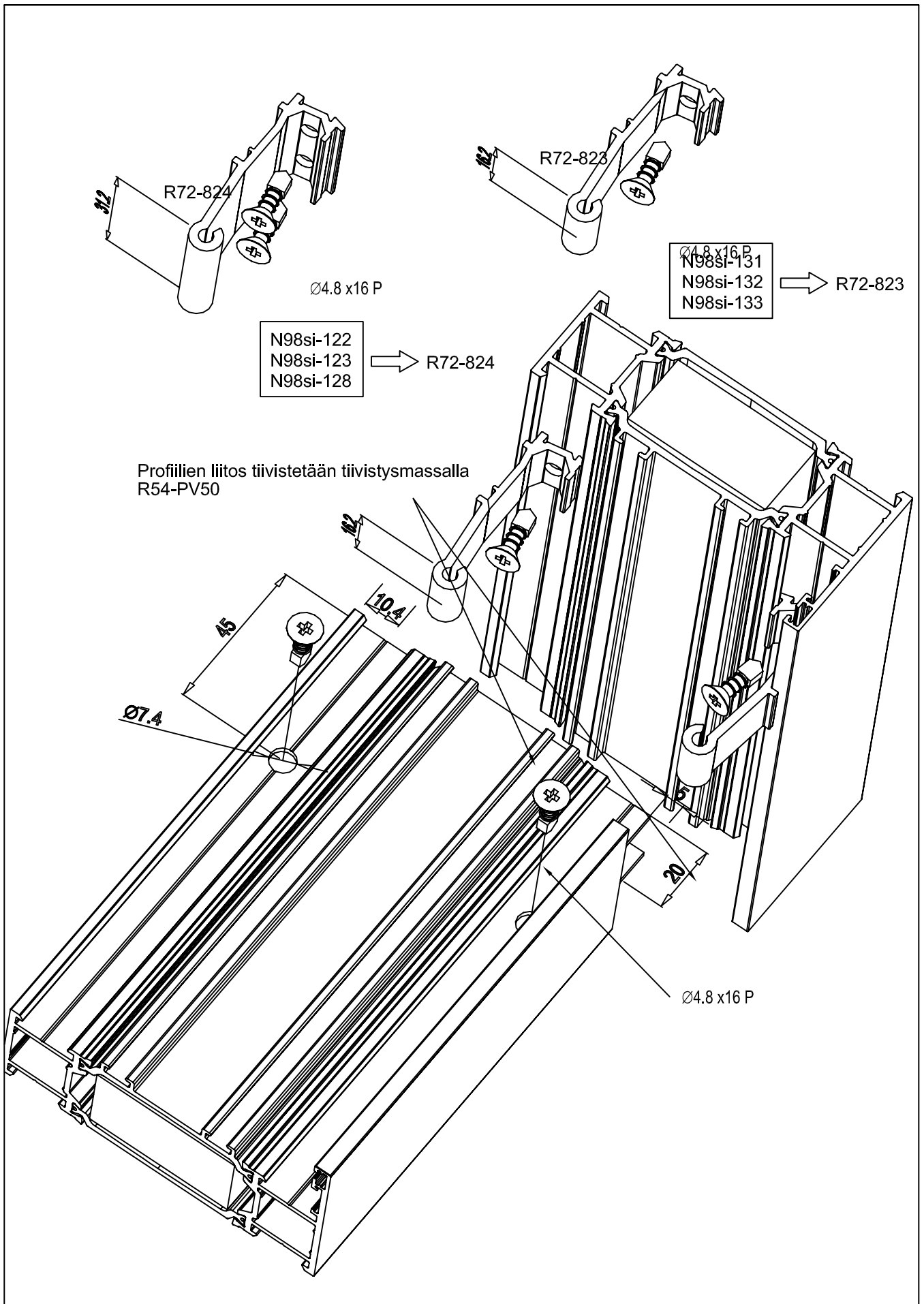
NOKIAN
PROFILES



N98si

Glass wall

Details A D



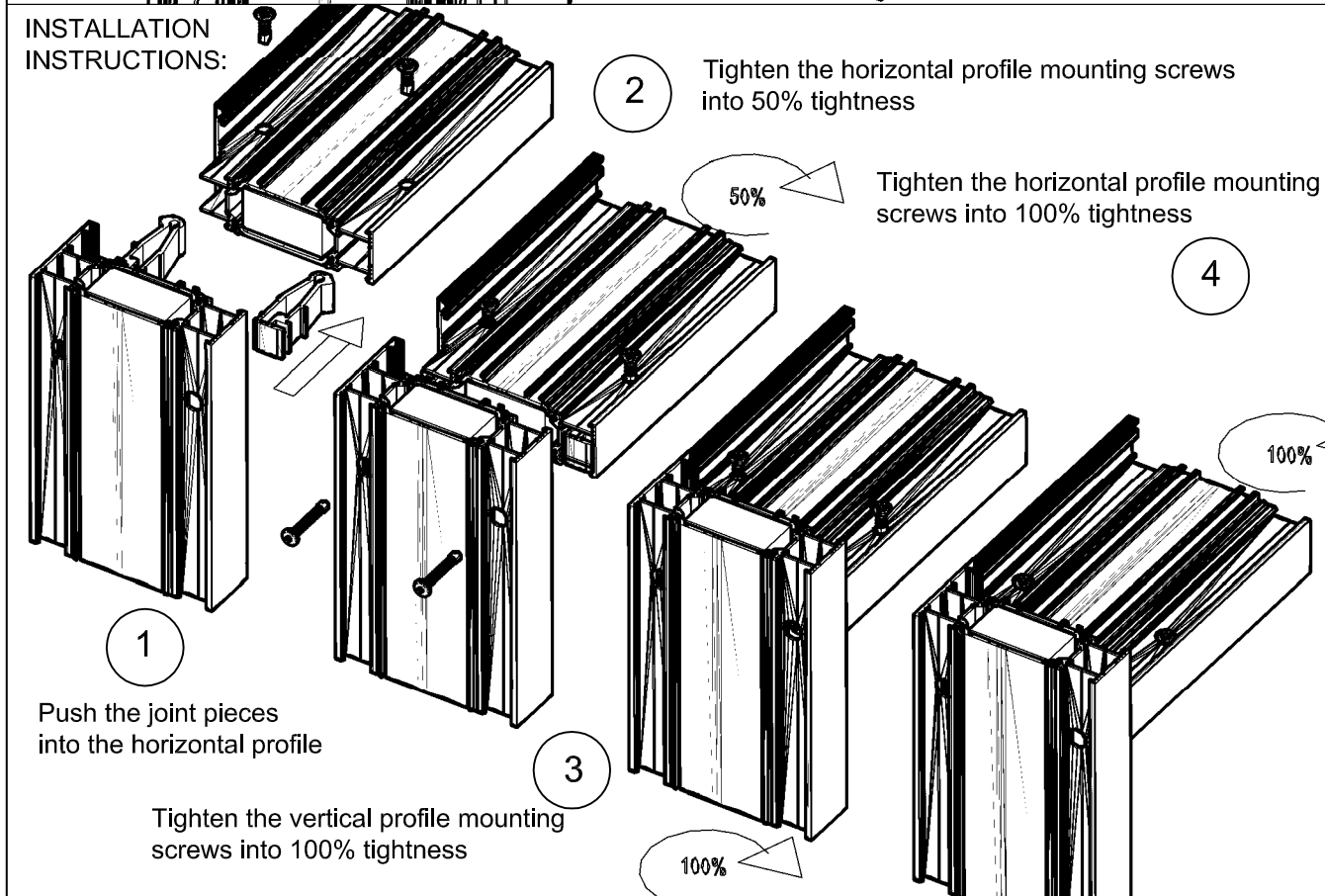
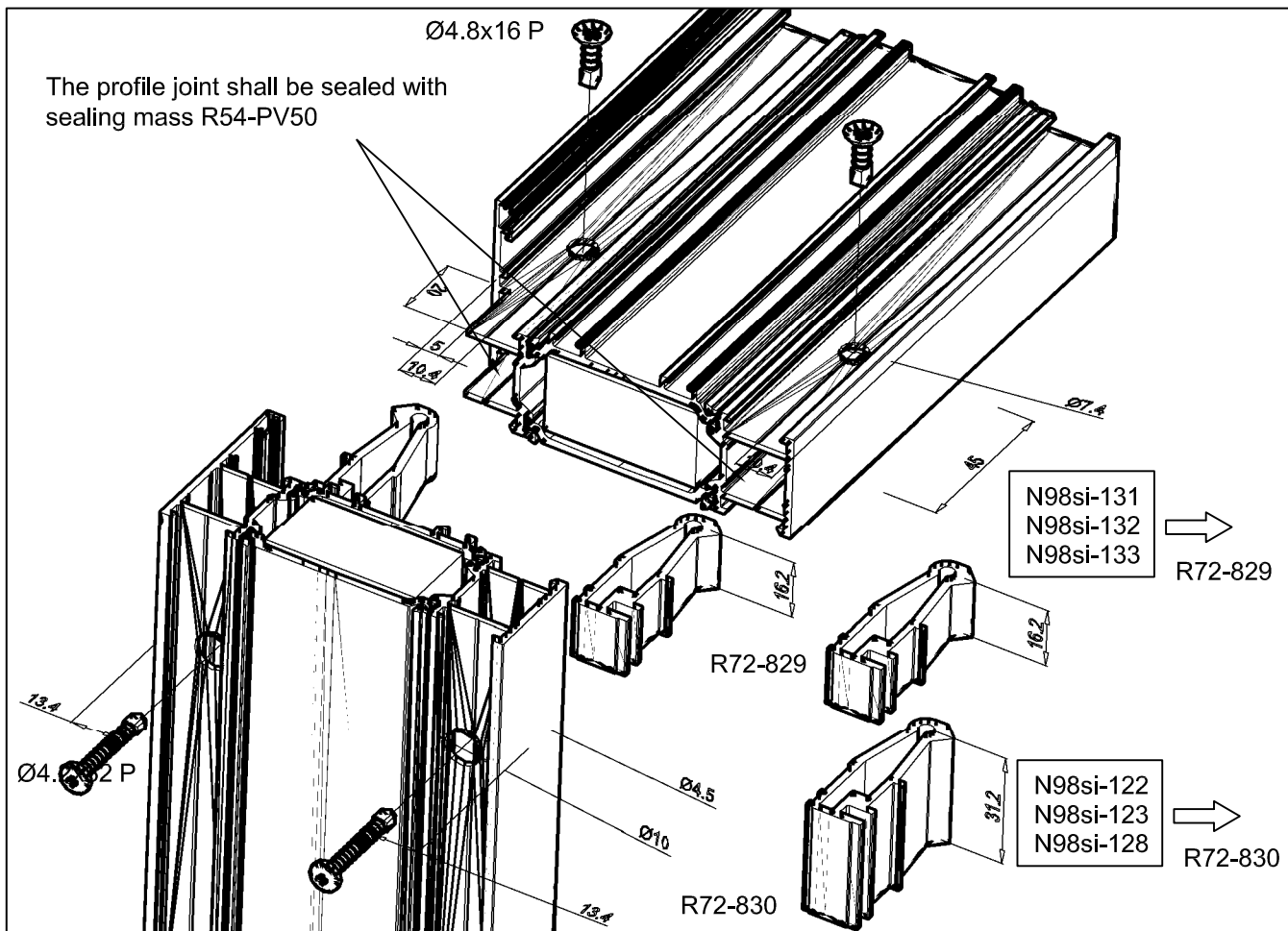
N98si

NOKIAN
PROFILES

01.04.2016

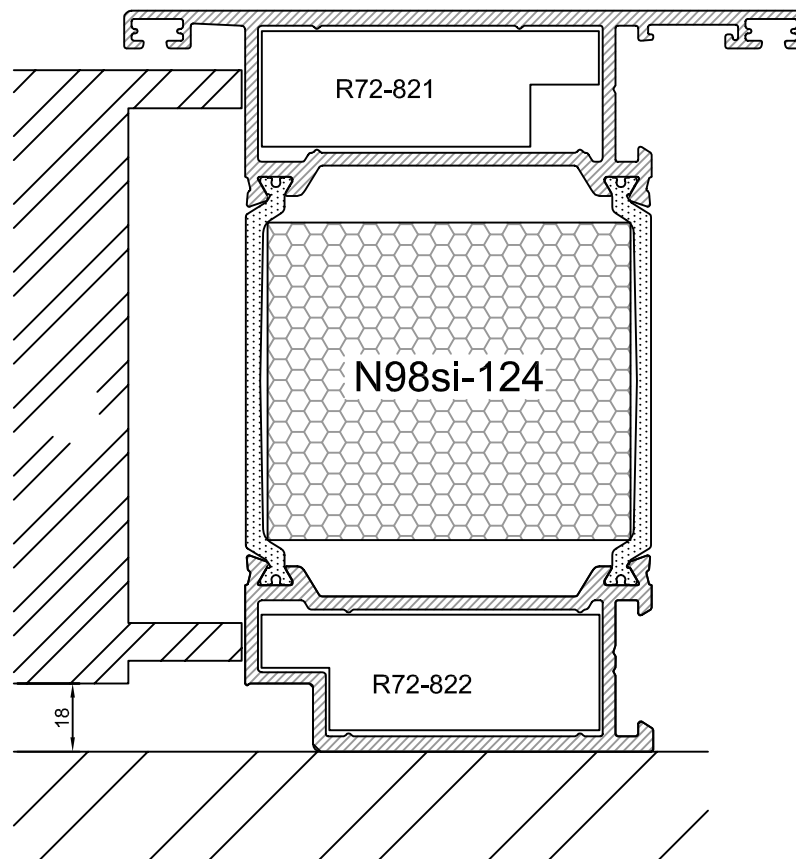
4.3

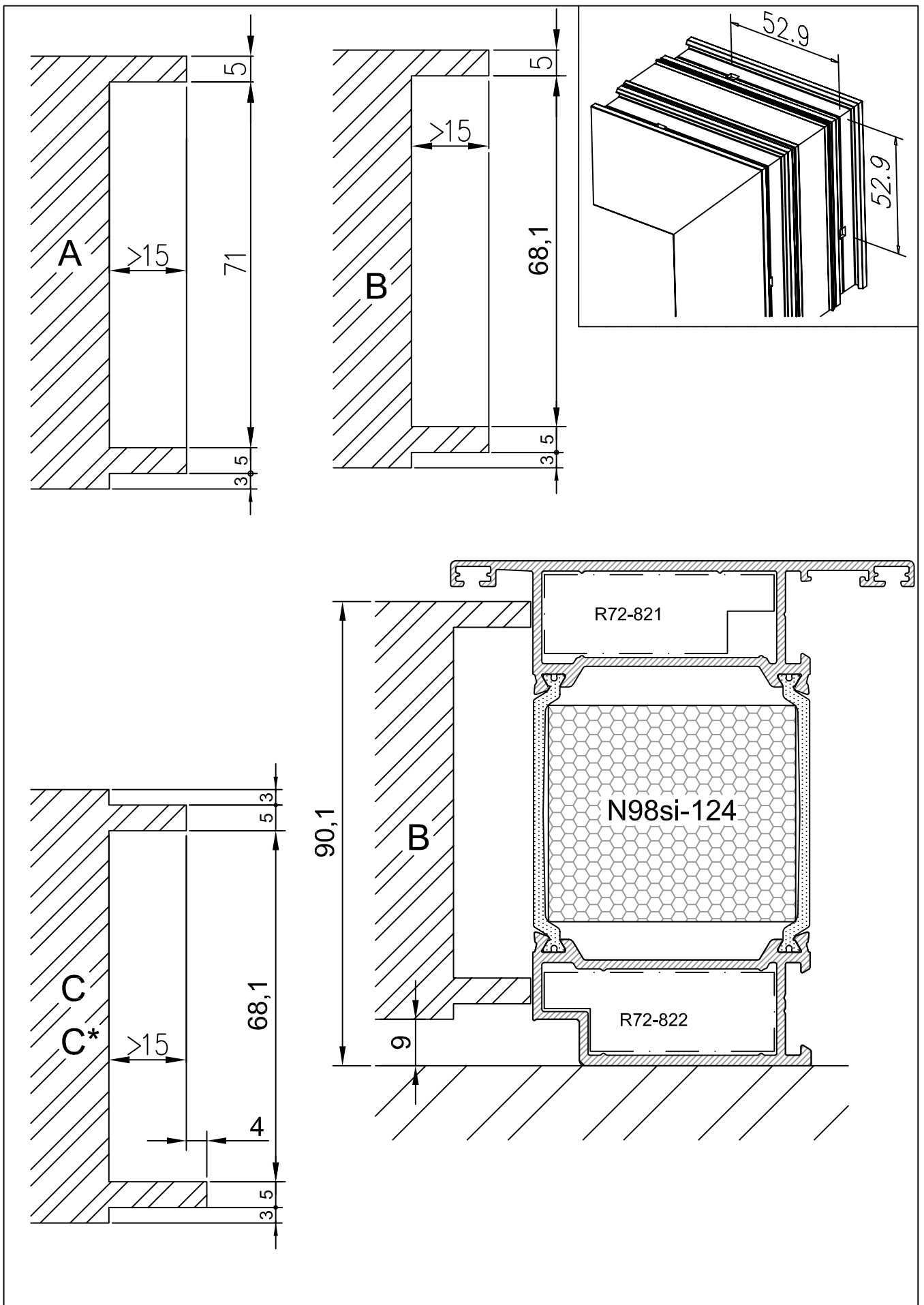
T-joint



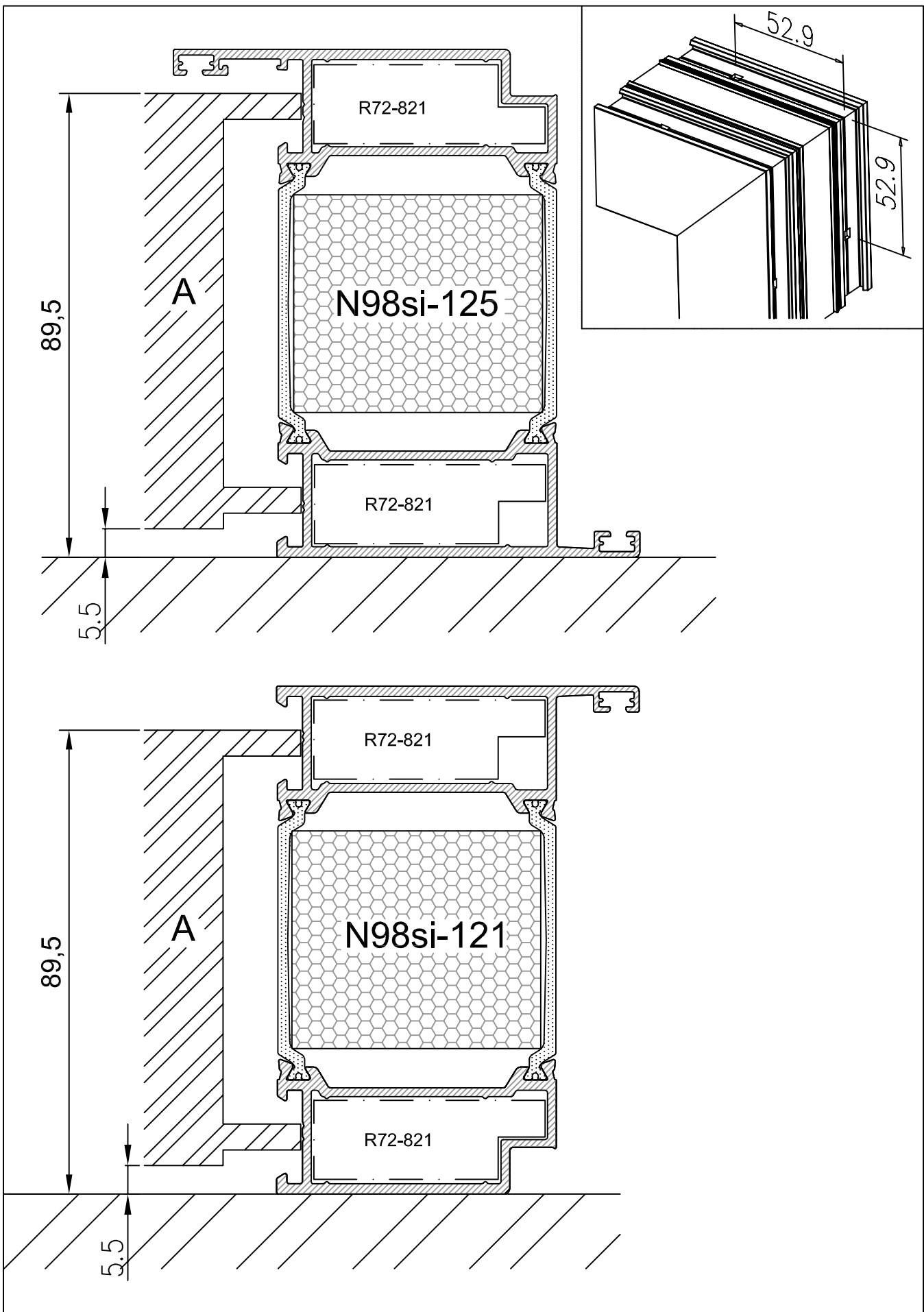
01.04.2016

5. Corner Crimping





N98si

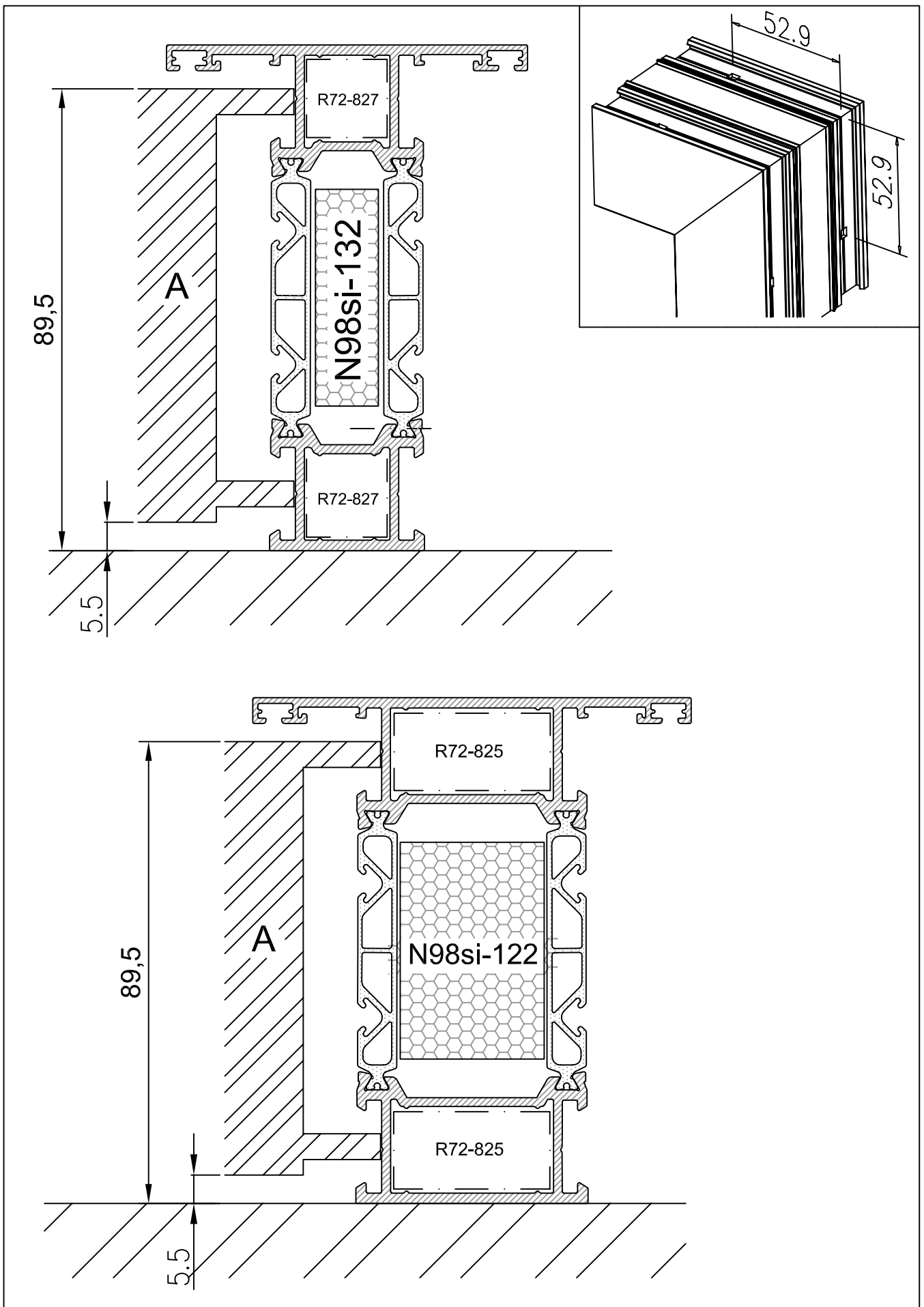


01.04.2016

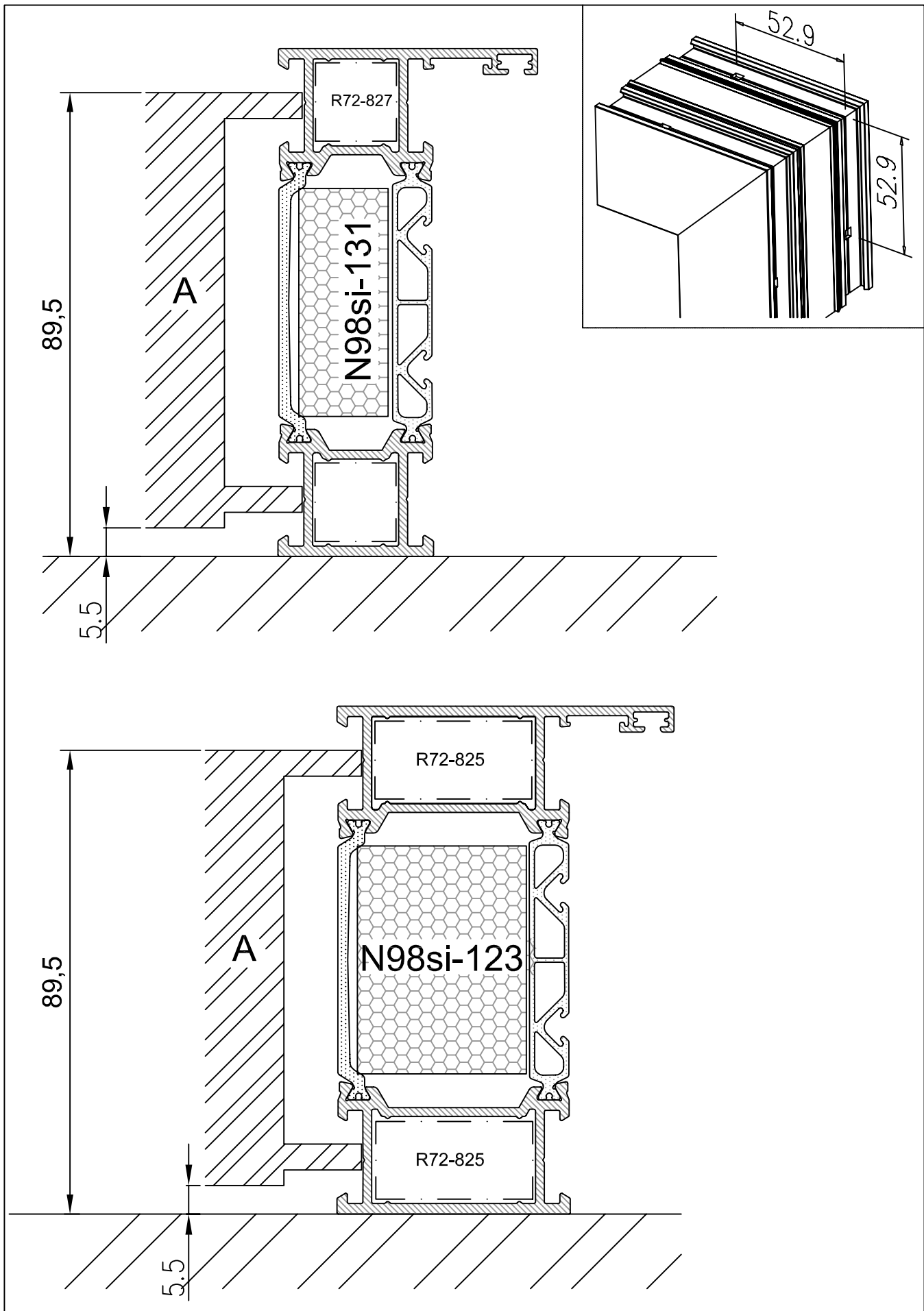
5.2 **NOKIAN**
PROFILES

N98si

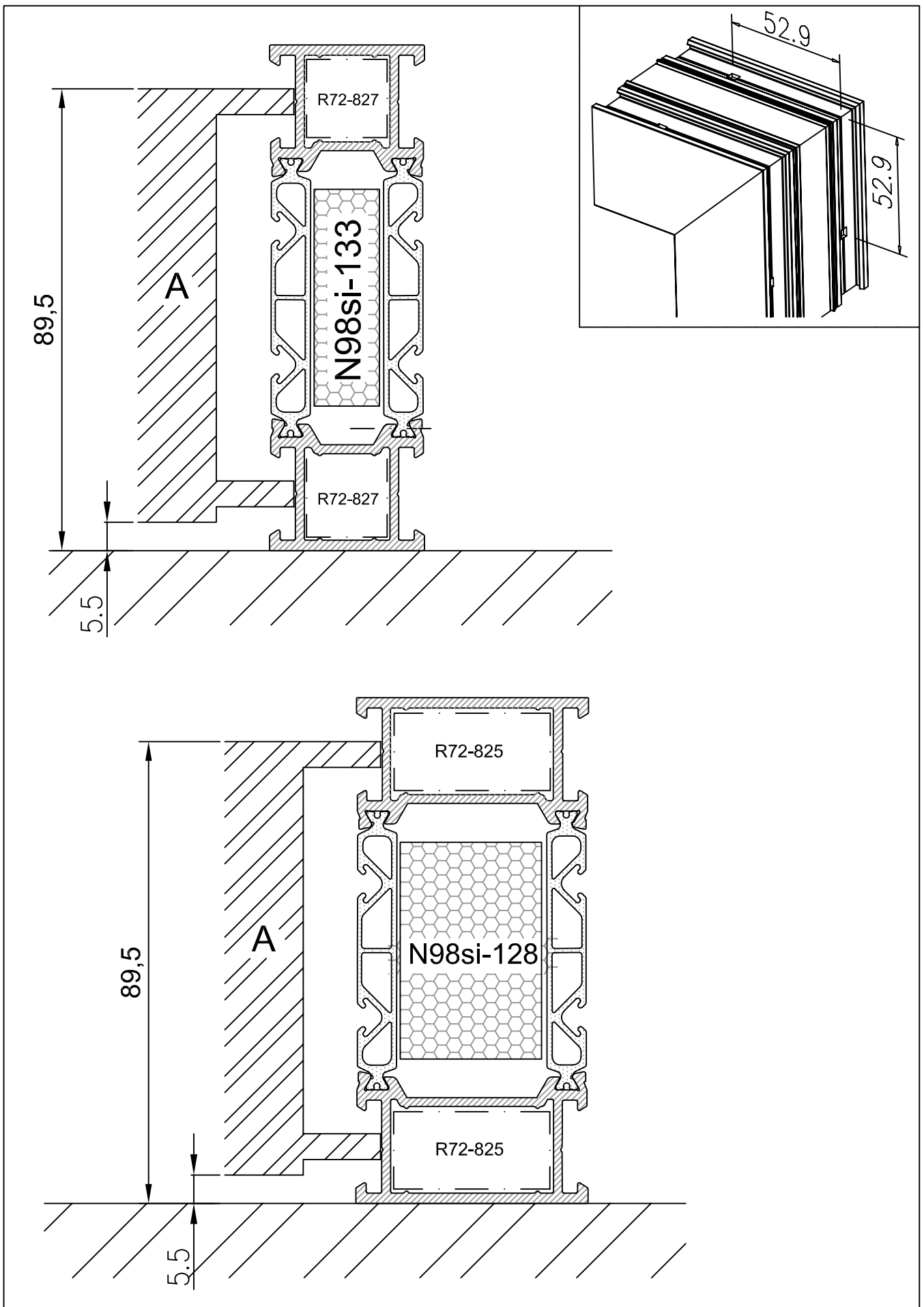
Corner pressing tools



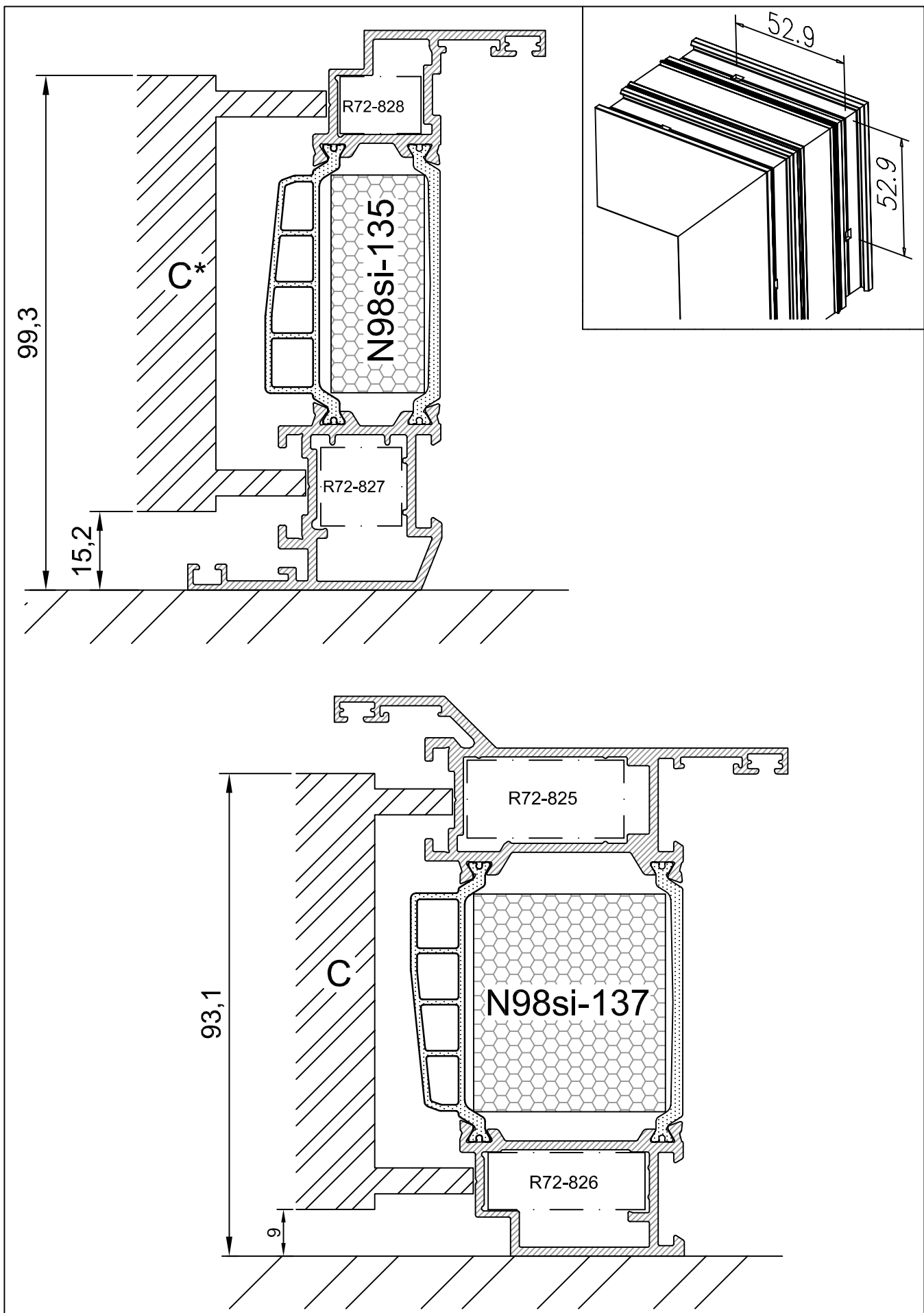
N98si



01.04.2016



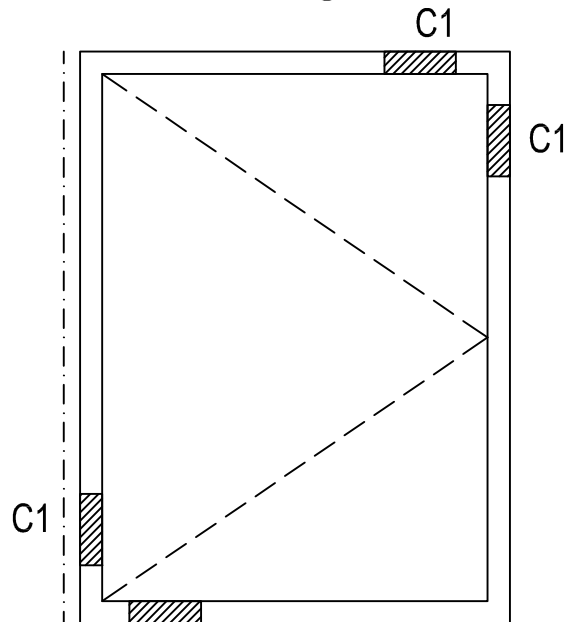
N98si










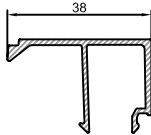









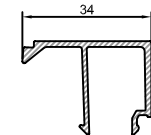









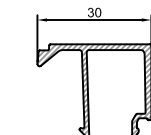




01.04.2016

6. Glazing

Positioning of the glazing pads Side hung



C1
 C1 = Bearing pad
 C2 = Support pad

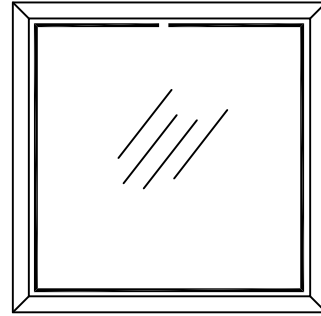
Rabbet no:	External seal:	Glass/Solid part nominal thickness:	Retrofit seal:	Glazing bead:
1.	653 	 43  44  45 (+)	656 	 38 R72-328
	652 	 45  46  47 (+)		
2.	653 	 47  48  49(+)	656 	 34 R72-327
	652 	 49  50  51 (+)		
3.	653 	 51  52  53 (+)	656 	 30 R72-326
	652 	 53  54  55 (+)		

GLAZING INSTRUCTIONS

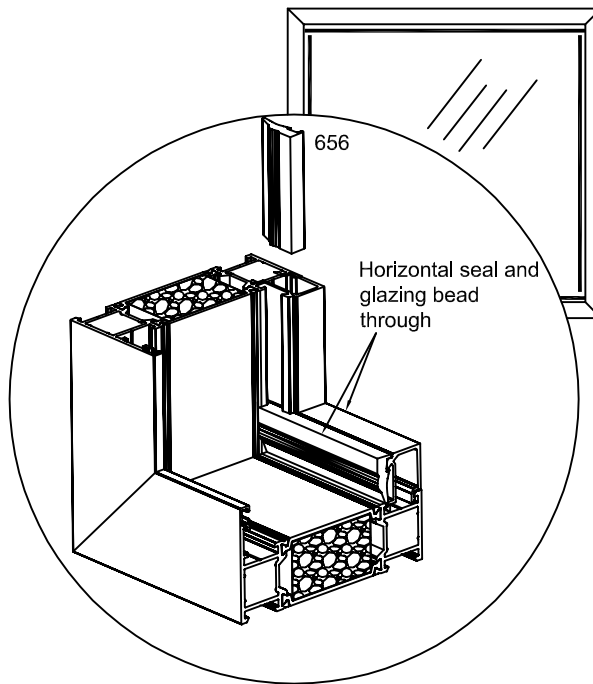
INSTALLING THE GLAZING SEALS

When starting the glazing, it must be ensured that the rabbets, glazing beads and glasses are clean. After this, fit the outer glazing seal no. 652 or 653 into the profile groove. After installing the glass and glazing beads, fit the glazing seal no. 656 in its position. Installation of the seals can be facilitated by applying silicone spray or some other suitable lubricant. When cutting the glazing seals, a shrinkage allowance of about 0.5% must be taken into account. Outside the seal is installed intact around the whole circle. Installation of the seal should be started from top centre. The inside retrofit seal is installed in the same way as the glazing beads. Horizontal beads through till the frame. Vertical beads between the horizontal ones.

INSTALLING THE GLAZING SEAL 652 AND 653:



INSTALLING THE GLAZING SEAL 656:

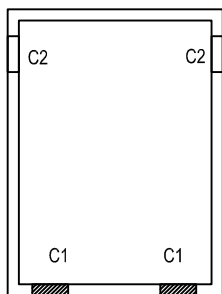


INSTALLING THE GLASS

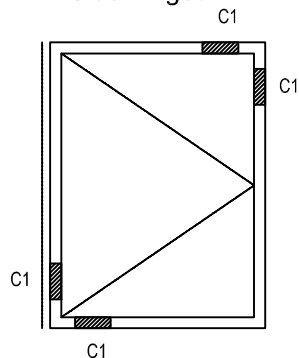
The meaning of padding is to support, centre and bear the sealed glass in the sash or frame in the intended manner, and to ensure that the window or door will stay in the correct form. There are two types of pads: -Bearing pads, which transfer the weight of the glass pane to the sash or frame. -Support pads, which prevent the glass pane from moving during use. The bearing pads must be made of rigid, durable plastics with the hardness of 70-90° Shore A, or other suitable material. Pads made of other materials must be of corresponding hardness. (Splitting or bellows pads are not allowed.) Temperature variations, to which the N98si structures may be subjected, must not have an adverse effect on the hardness of the pads. The length of the bearing pads must be 100 mm and the width 4 mm larger than the thickness of the glass pane. The thickness of the bearing pads shall be 5 mm. The length of the support pads may be between 50 and 100 mm, depending on the pane size, and width the same as with the bearing pads. The pads shall be located at 100 mm's distance from the pane corners (measured to the centre of the pad). The drawings show the locations of the pads in the most common window and door types. These glazing instructions are only general. We naturally cannot accept any liability for the actual glazing work, which is not under our supervision. These glazing instructions are valid only for vertical constructions.

PAD LOCATIONS

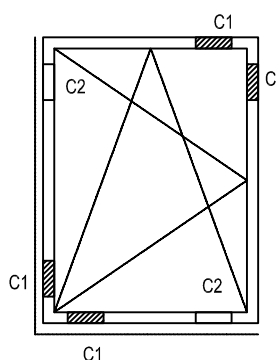
Fixed



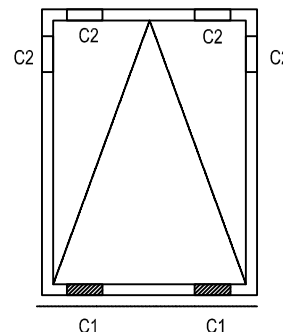
Side-hinged



Side-bottom-hinged



Bottom/top-hinged



▨ C1 = Bearing pad
□ C2 = Support pad

Rabbit no:	External seal:	Glass/Solid part nominal thickness:	Retrofit seal:	Glazing bead:
1.	653 7,5	43 44 45 (+)	656	38 R72-328
	652 5,5	45 46 47 (+)		
2.	653	47 48 49(+)	656	34 R72-327
	652	49 50 51 (+)		
3.	653	51 52 53 (+)	656	30 R72-326
	652	53 54 55 (+)		
4.	653	55 56 57 (+)	656	26 R72-325
	652	57 58 59 (+)		
5.	653	59 60 61 (+)	656	22 R72-324
	652	61 62 63 (+)		
6.	653	63 64 65 (+)	656	18 R72-323
	652	65 66 67 (+)		
7.	653	68 69 70 (+)	656	14 R72-322
	652	70 71 72 (+)		
8.	653	72 73 74 (+)	656	10 R72-321
	652	74 75 76 (+)		
9.	653	76 77 78 (+)	656	5 R72-320
	652	78 79 80		

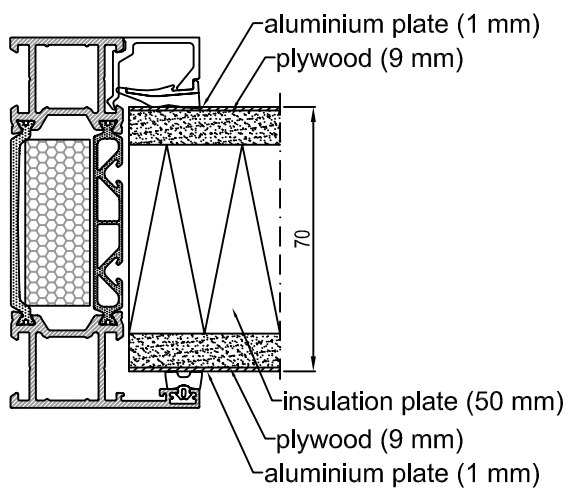
For some glass thicknesses there are several seal/glazing bead alternatives specified.

Marking (+) after the glass thickness means a recommended = (tighter) glazing alternative.

Measures of glass: light opening area + 28 mm

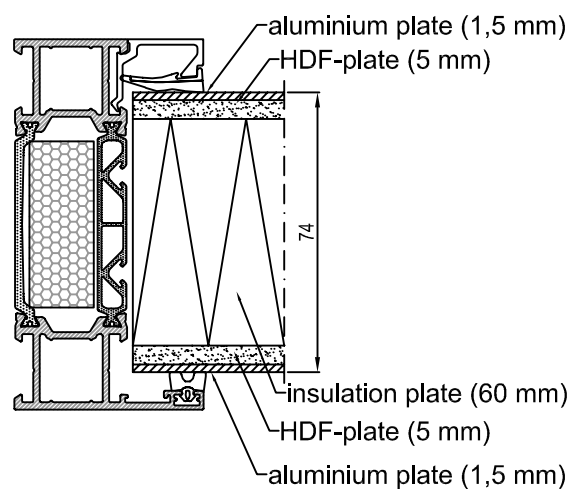
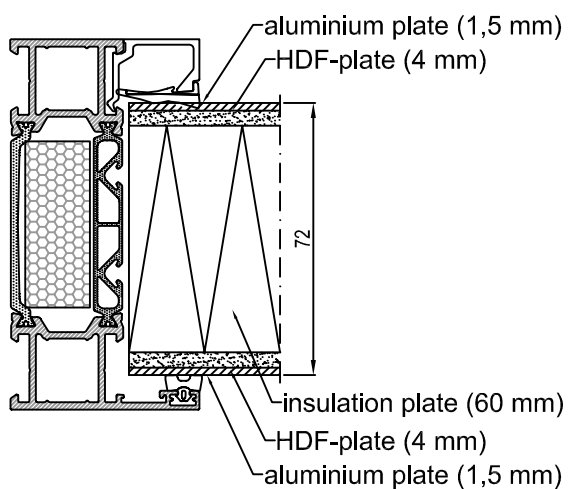
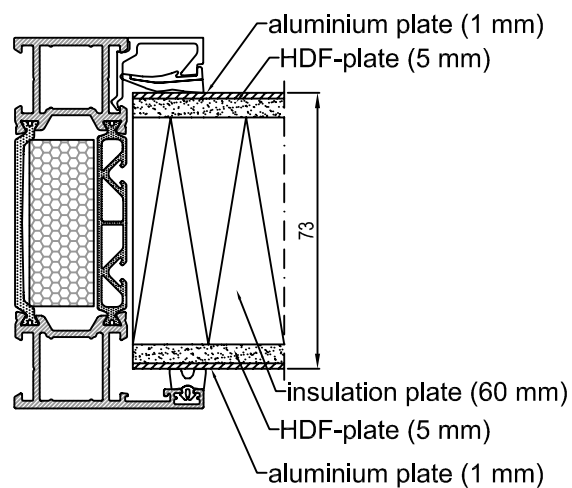
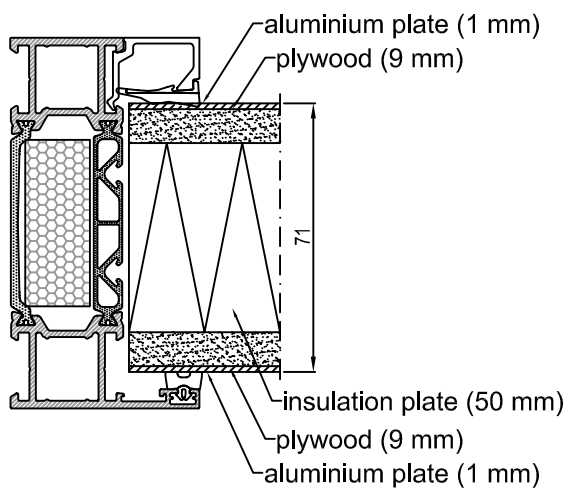
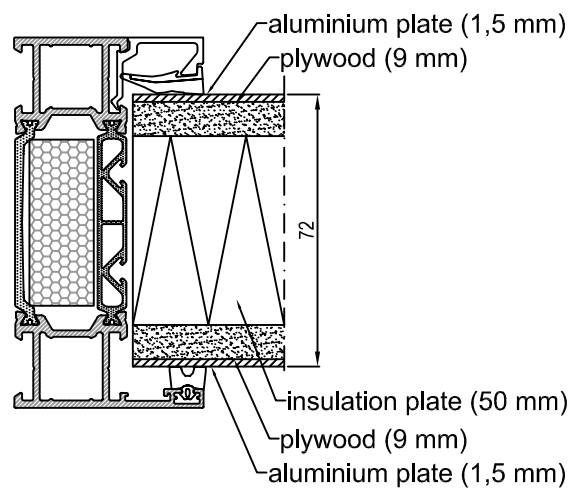
FILLING 70...72 MM

GLAZING LIST: R72-322 (14 mm)
GASKET: 652 + 656



FILLING 72...74 MM

GLAZING LIST: R72-322 (14 mm)
GASKET: 653 + 656



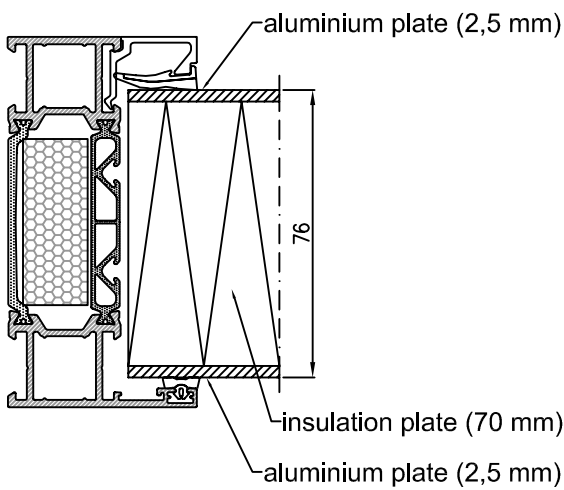
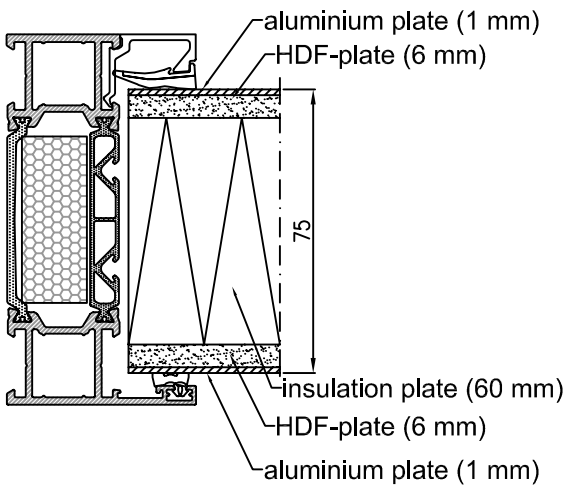
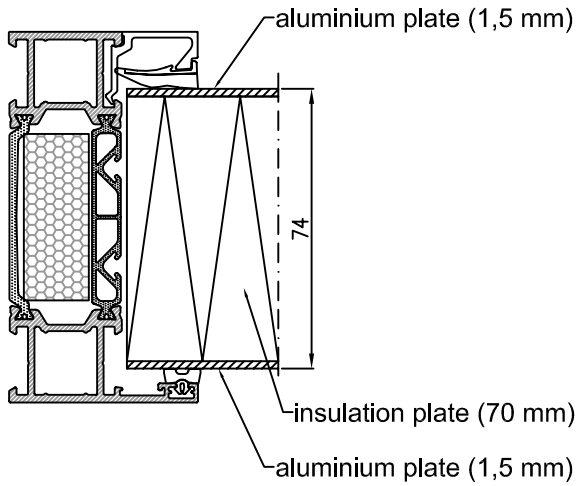
01.04.2016

6.3 NOKIAN
PROFILES

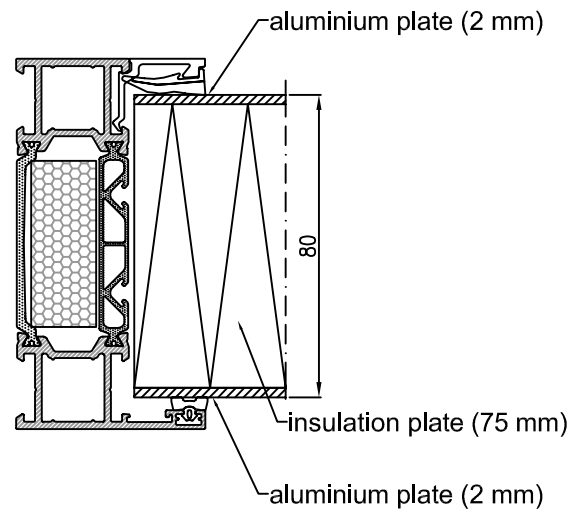
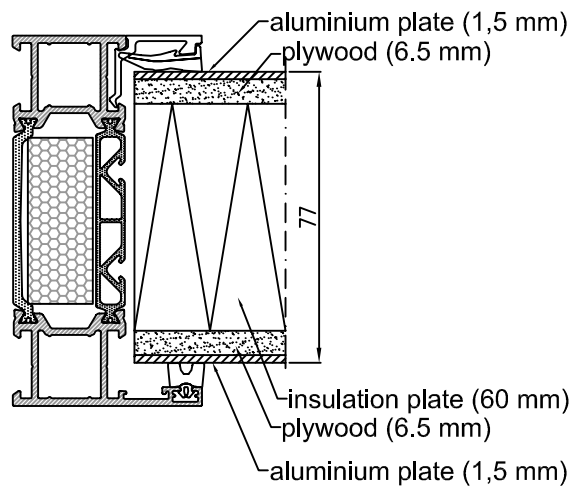
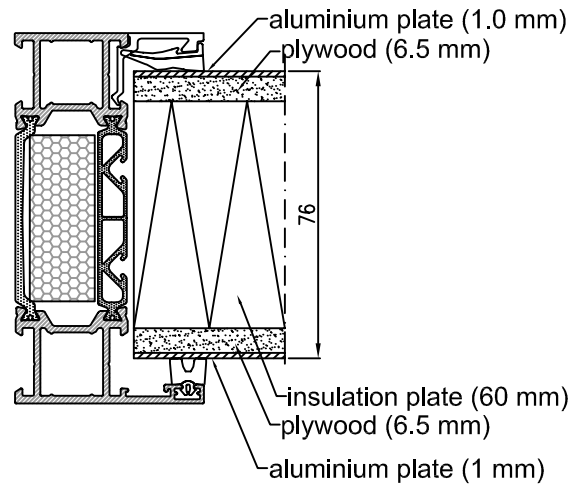
N98si

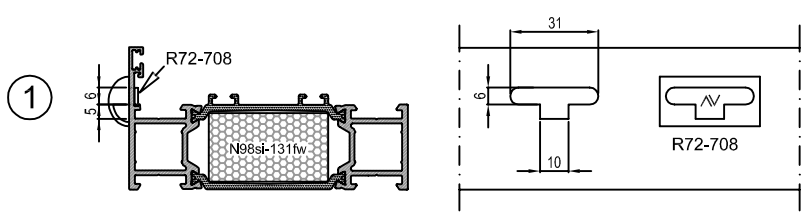
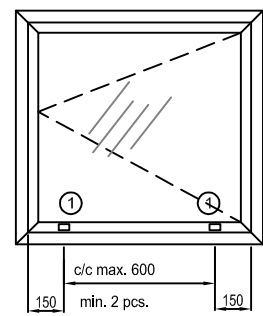
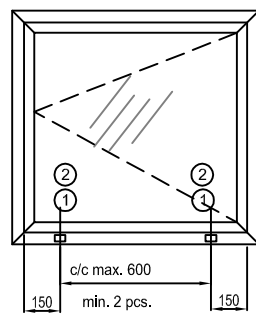
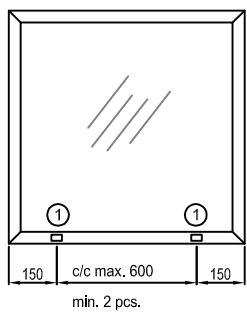
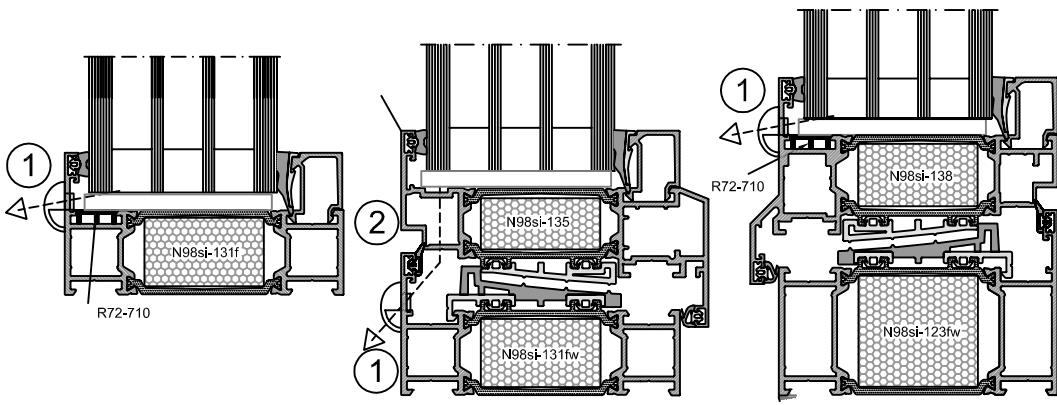
Filling parts 70...74 mm

FILLING 74...76 MM
 GLAZING LIST: R72-321 (10 mm)
 GASKET: 652 + 656



FILLING 76...78 MM
 GLAZING LIST: R72-320 (5 mm)
 GASKET: 653/652 + 656

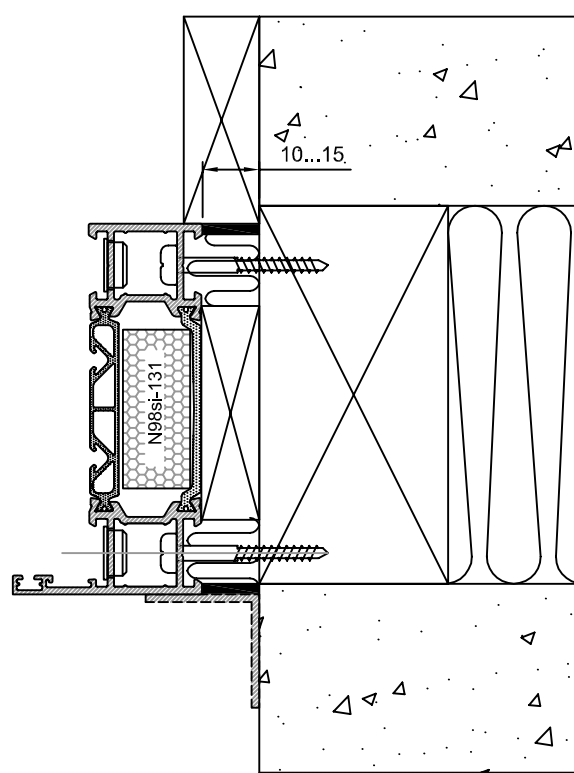
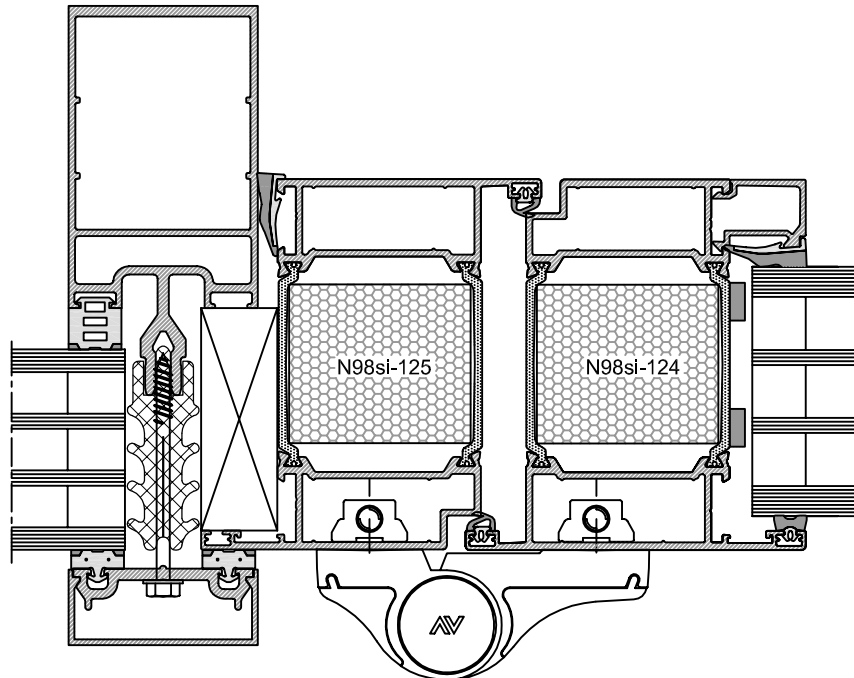




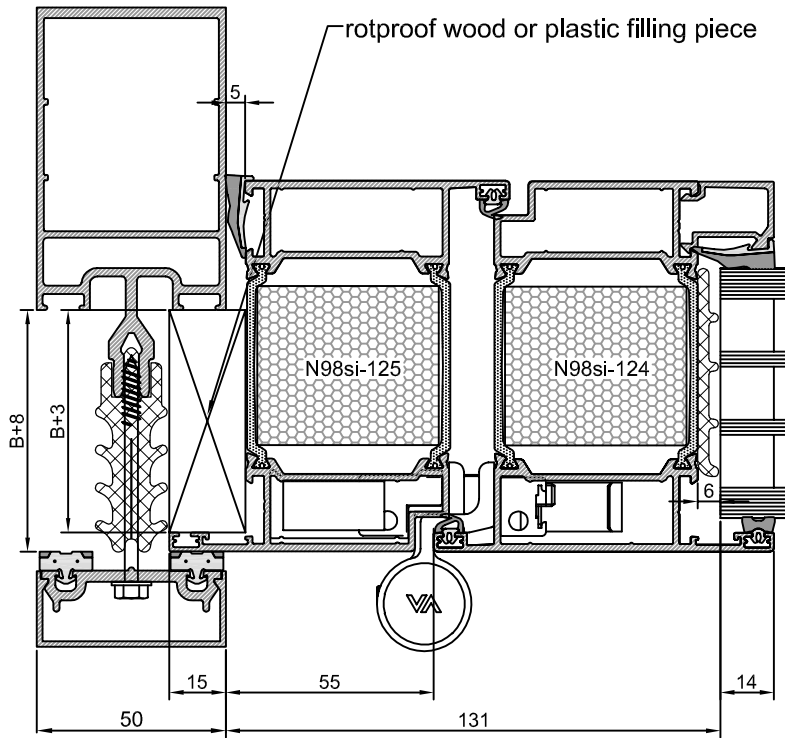
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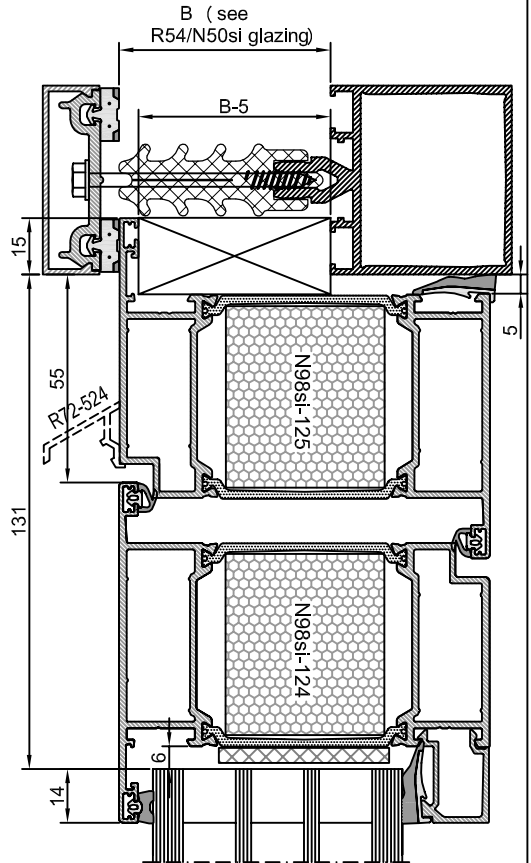
7. Installation



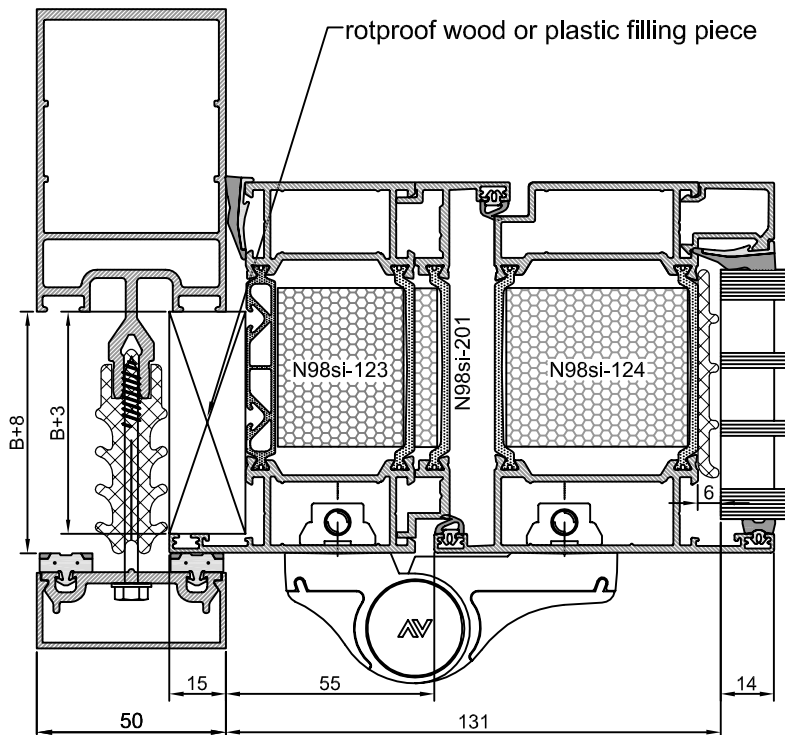
CONNECTION OF R54/N50si VERTICAL FRAME / DOOR FRAME N98si-125



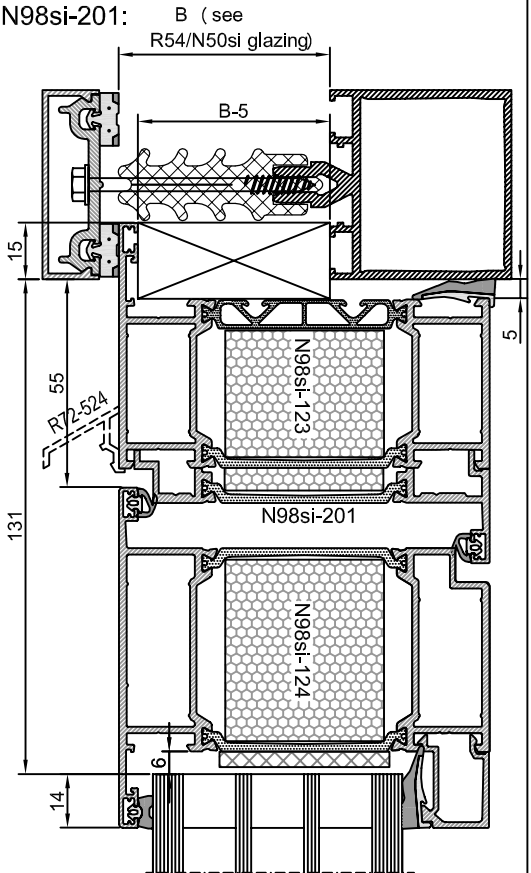
CONNECTION R54/N50si HORIZONTAL FRAME / DOOR FRAME N98si-125



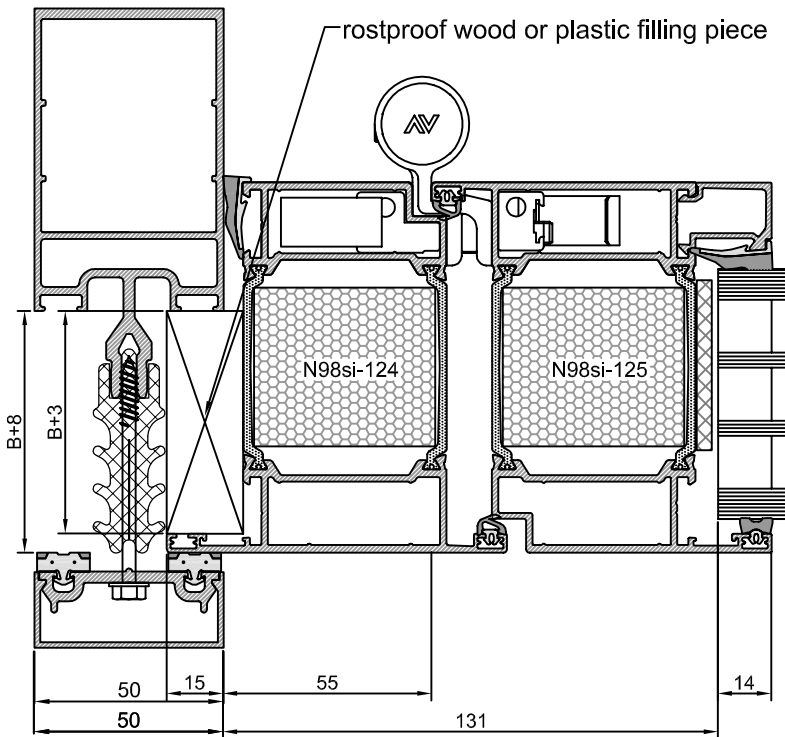
CONNECTION R54/N50si VERTICAL FRAME / DOOR FRAME N98si-123 + N98si-201



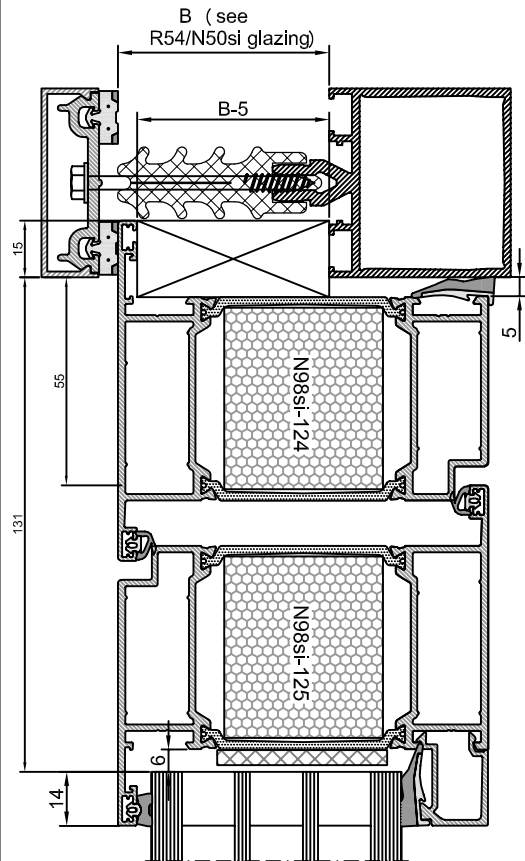
CONNECTION R54/N50si HORIZONTAL FRAME / DOOR FRAME N98si-123 + N98si-201:



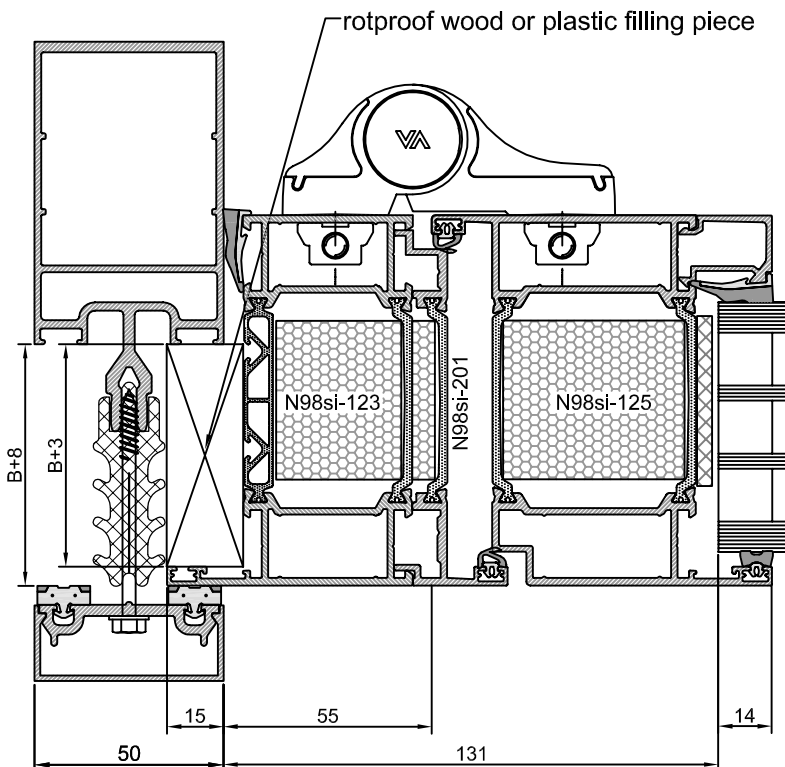
CONNECTION OF R54/N50si VERTICAL FRAME / DOOR FRAME N98si-125:



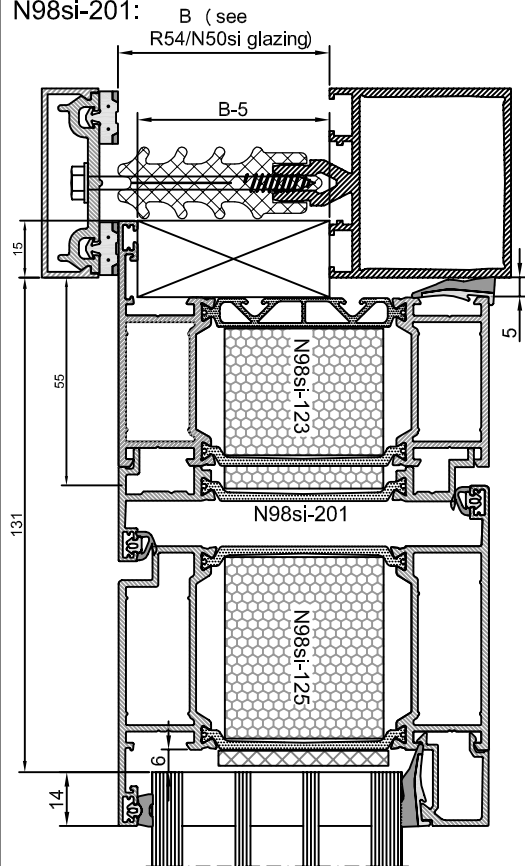
CONNECTION R54/N50si HORIZONTAL FRAME / DOOR FRAME N98si-125:



CONNECTION OF R54/N50si VERTICAL FRAME / DOOR FRAME N98si-123 + N98si-201:



CONNECTION R54/N50si HORIZONTAL FRAME / DOOR FRAME N98si-123 + N98si-201:



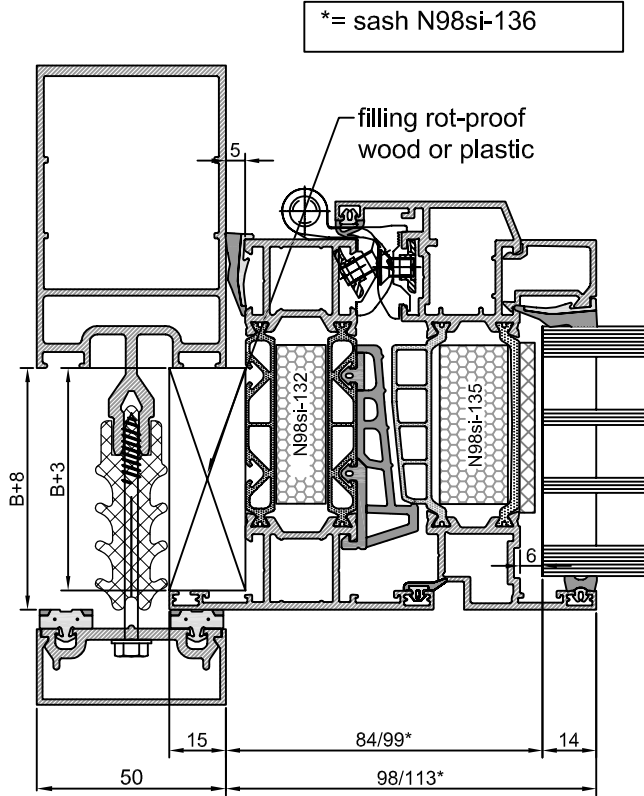
01.04.2016



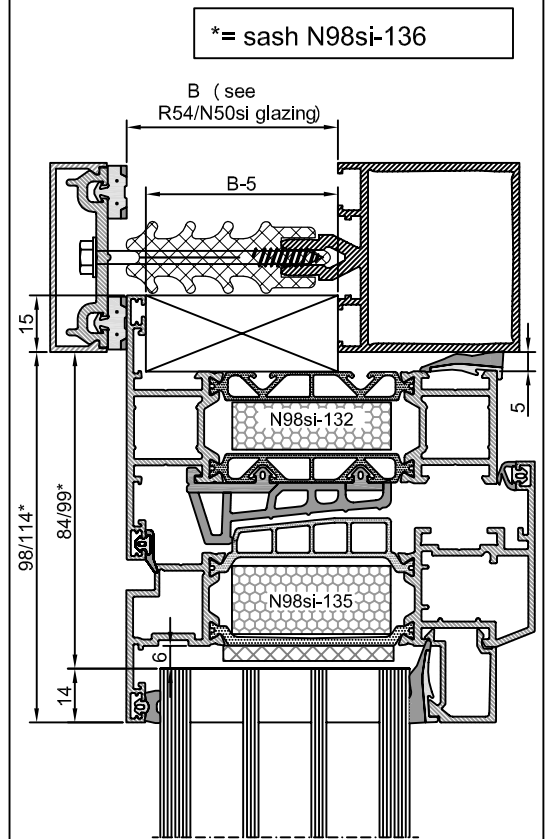
N98si

Door connections N98si / R54/N50si, inside openable doors

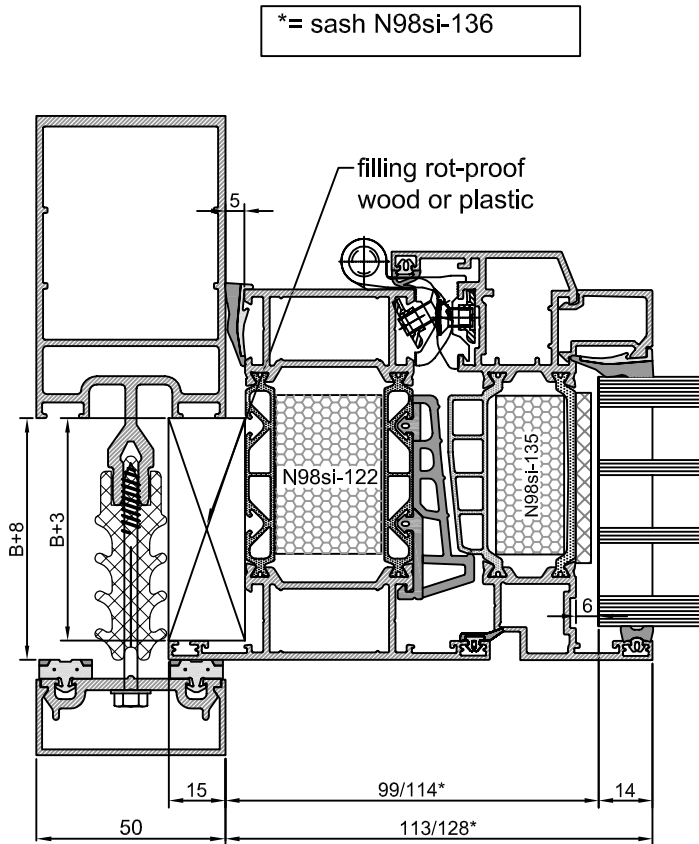
Joint to R54/N50si-facade system mullion
with frame N98si-132



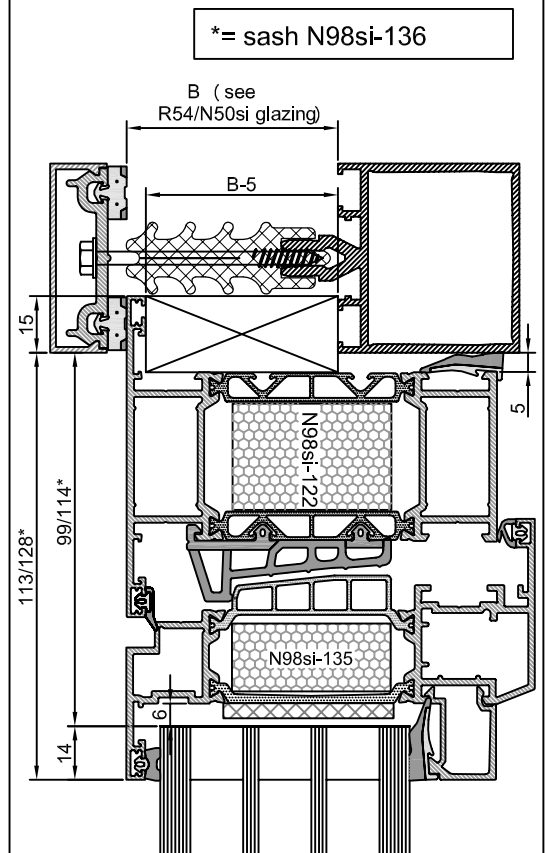
Joint to R54/N50si-facade system transom
with frame N98si-132



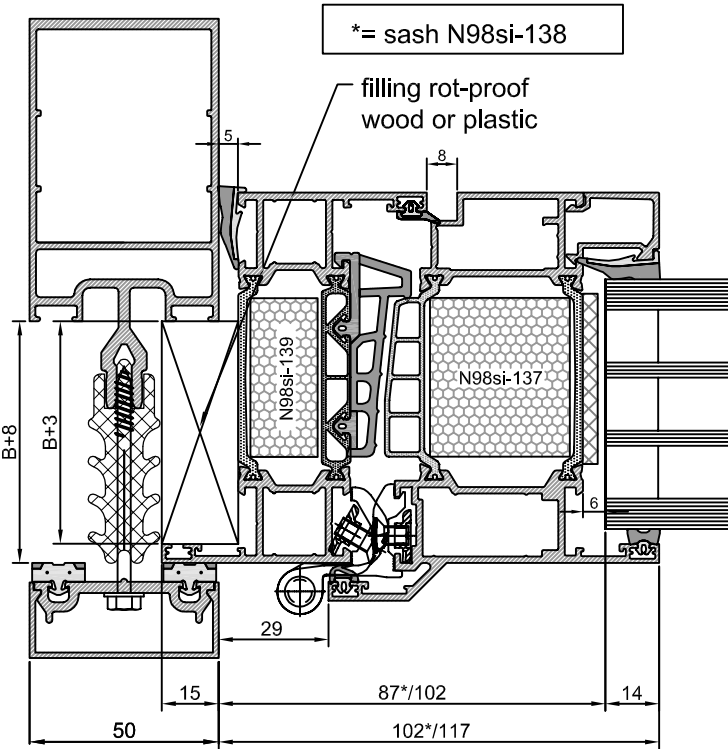
Joint to R54/N50si-facade system mullion
with frame N98si-122



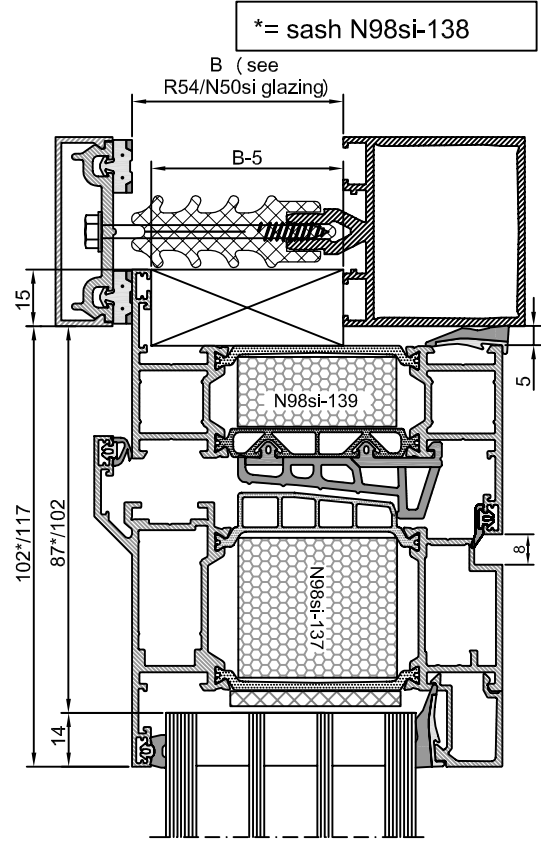
Joint to R54/N50si-facade system transom
with frame N98si-122



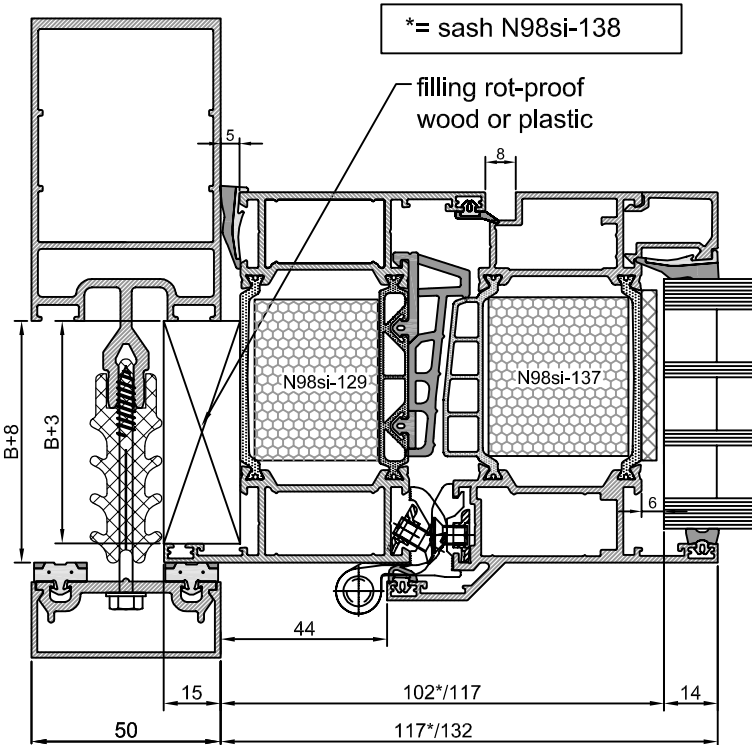
Joint to R54/N50si-facade system mullion with frame N98si-139



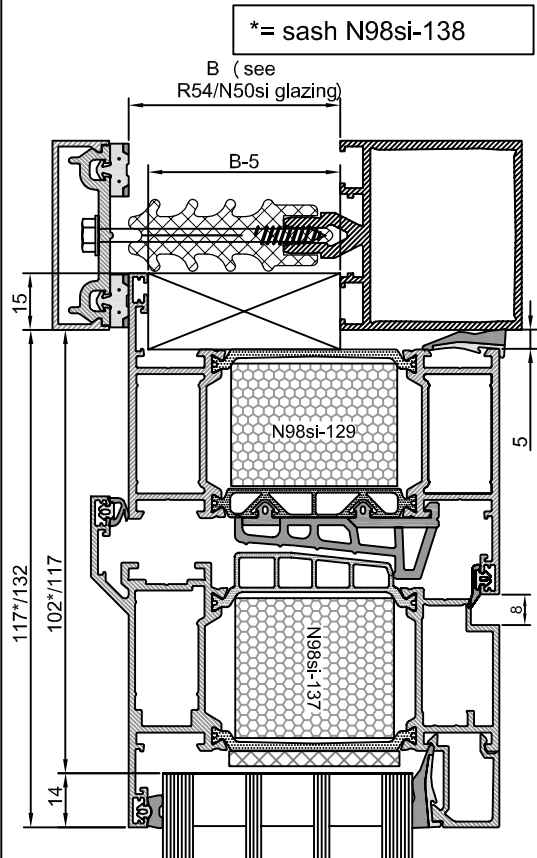
Joint to R54/N50si-facade system transome with frame N98si-139



Joint to R54/N50si-facade system mullion with frame N98si-129



Joint to R54/N50si-facade system transome with frame N98si-129



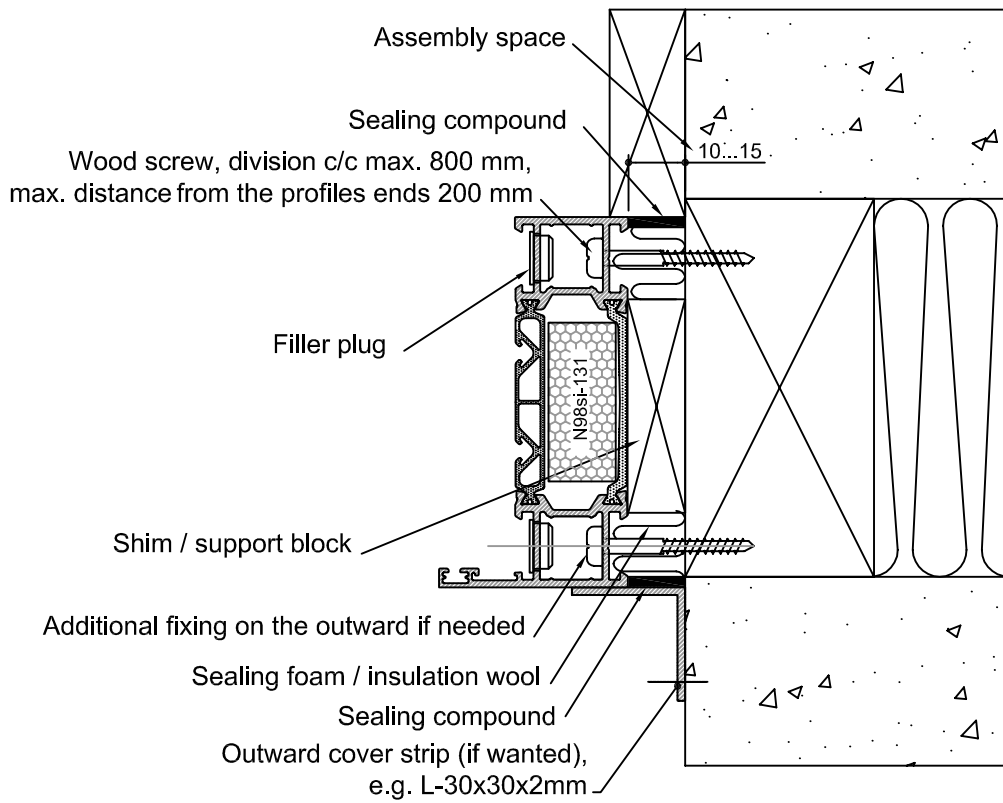
01.04.2016



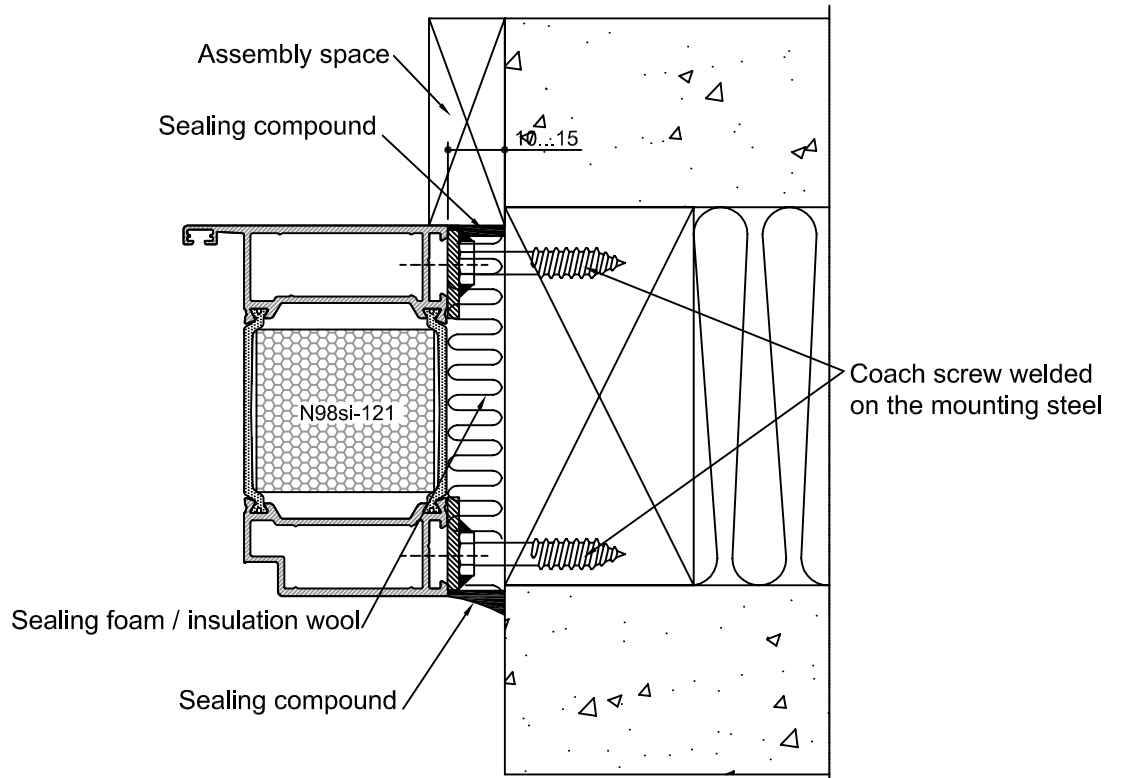
N98si

Window connections N98si / R54/N50si. Outside openable windows

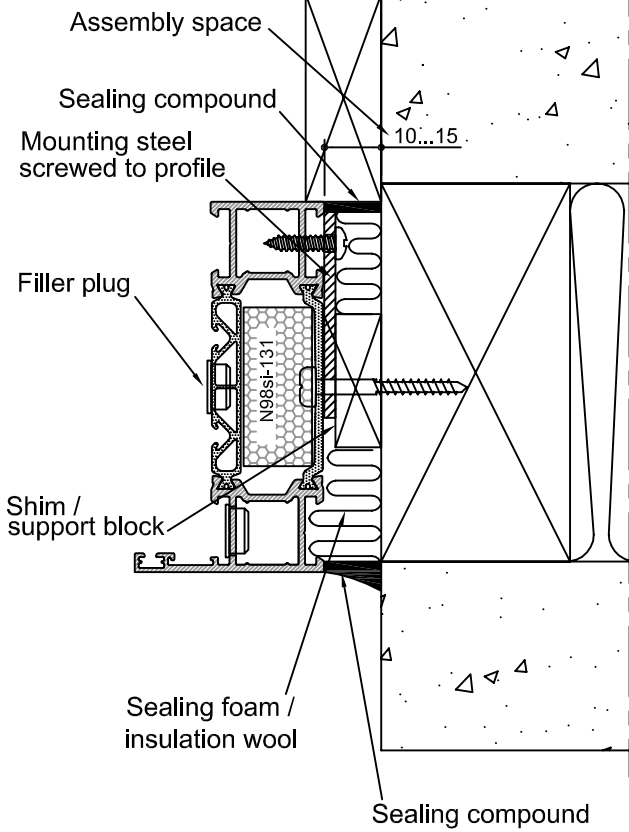
ALTERNATIVE 1 / WOOD SCREW:



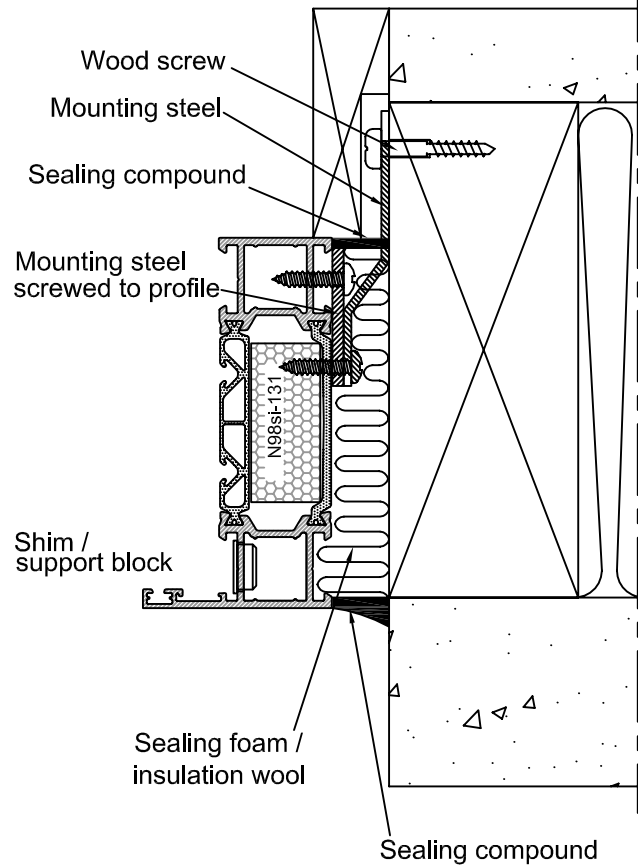
ALTERNATIVE 2 / COACH SCREW + WELDING:



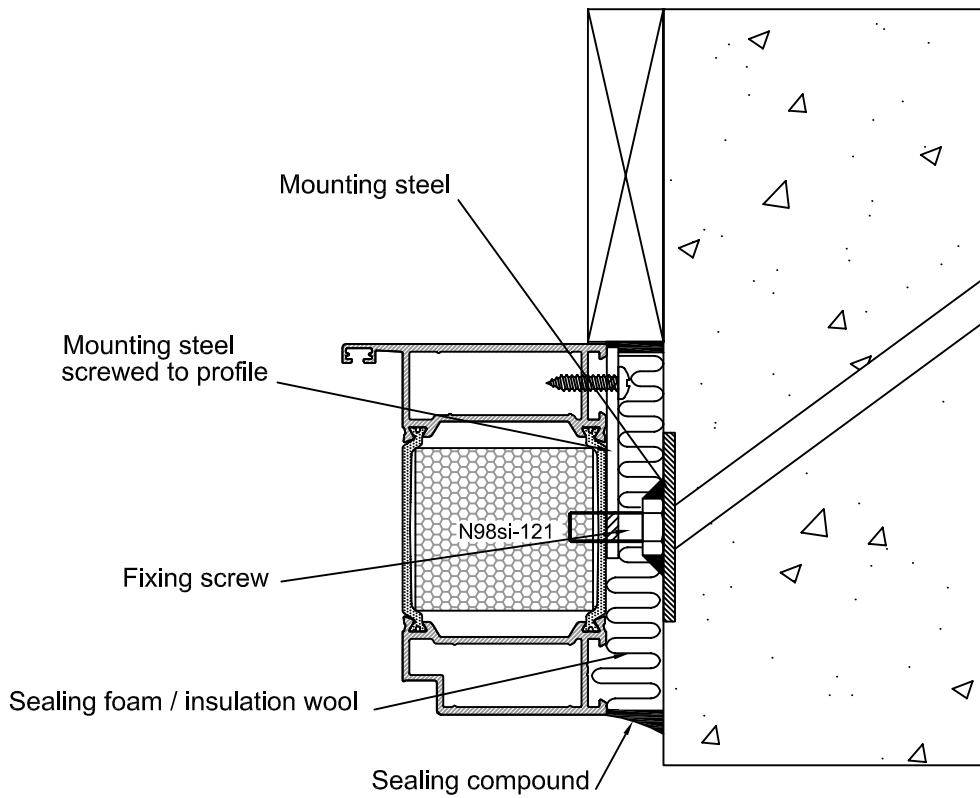
ALTERNATIVE 1: MOUNTING STEEL + SUPPORT BLOCK



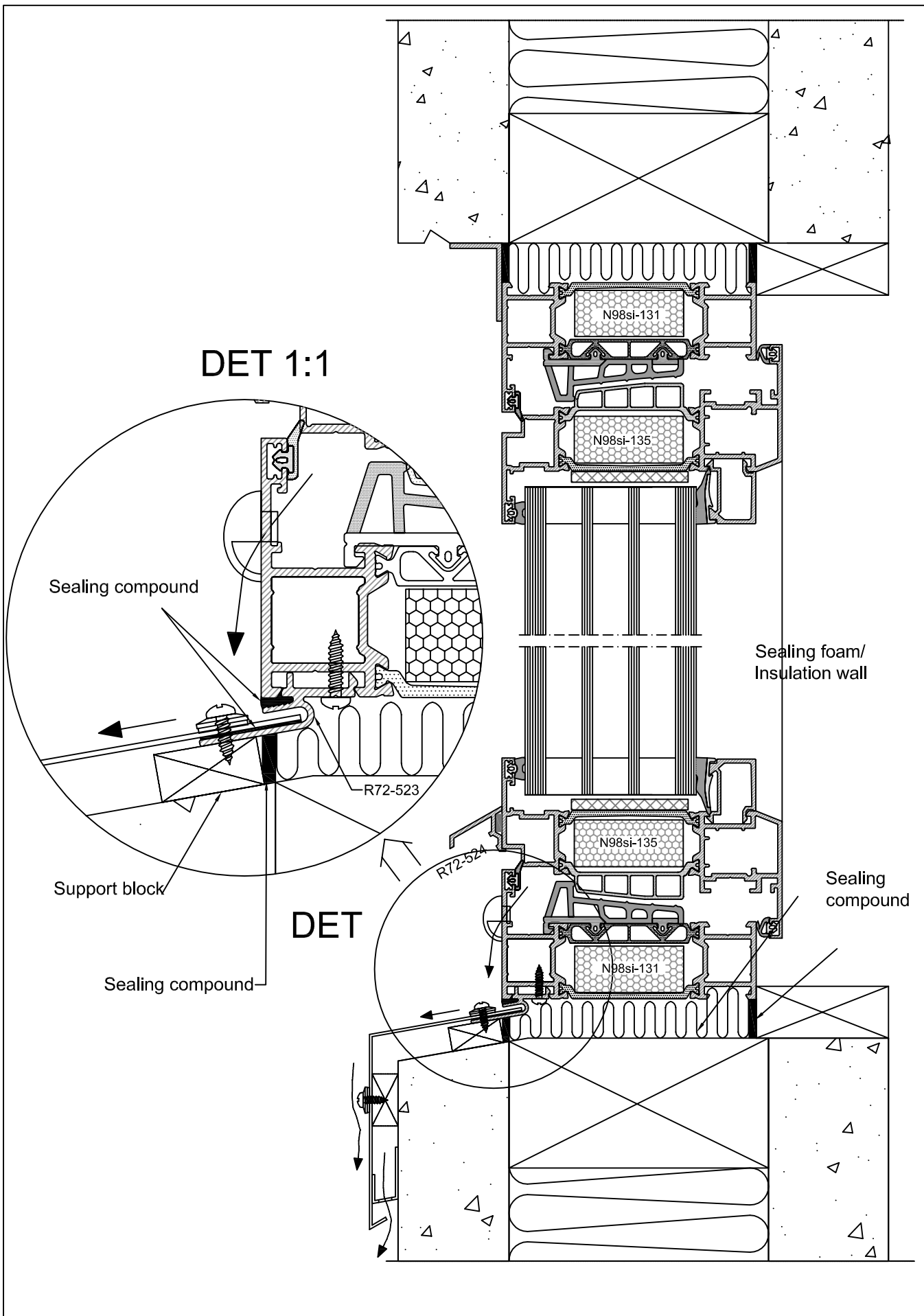
ALTERNATIVE 2: MOUNTING STEEL



ALTERNATIVE 3: MOUNTING STEEL, ADJUSTING BOLT + WELDING

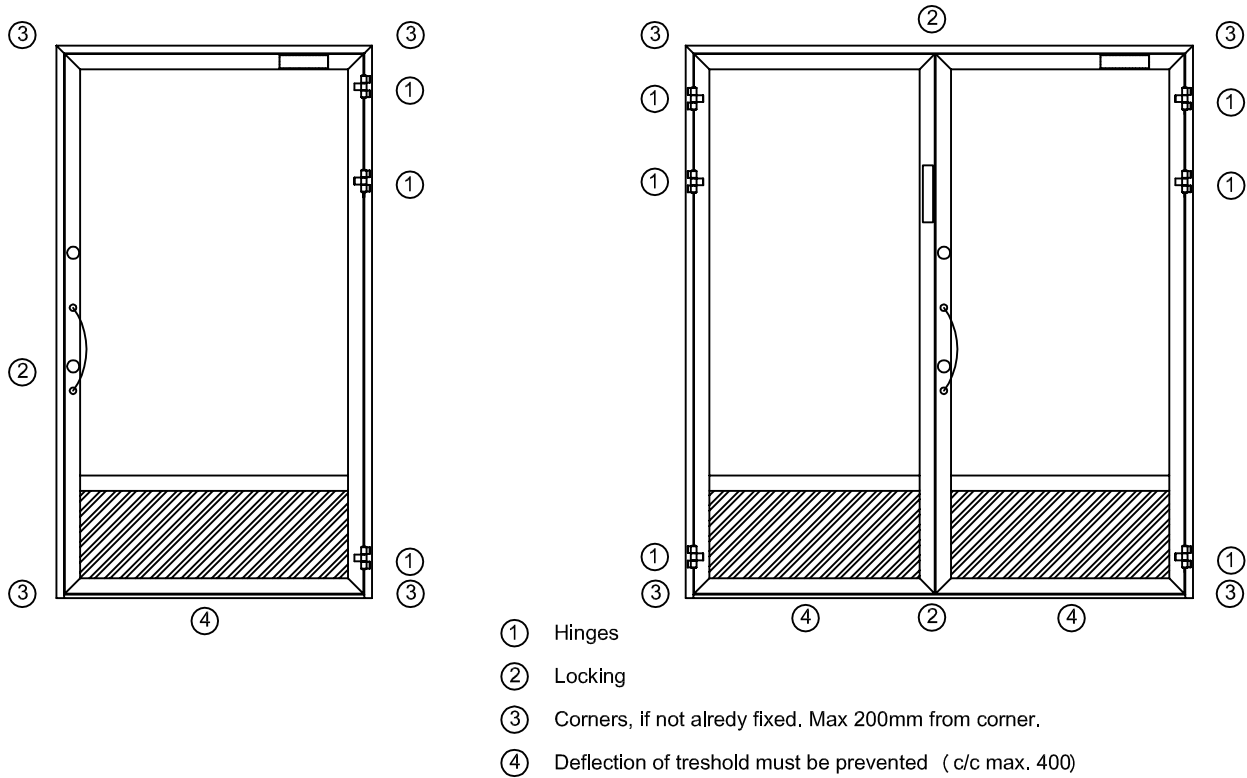


01.04.2016

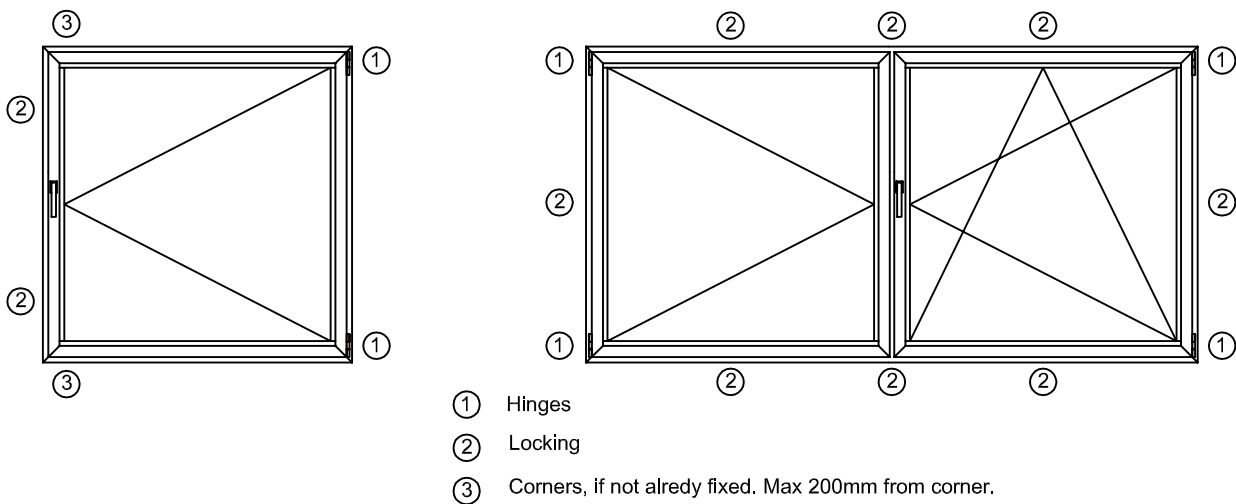


N98si

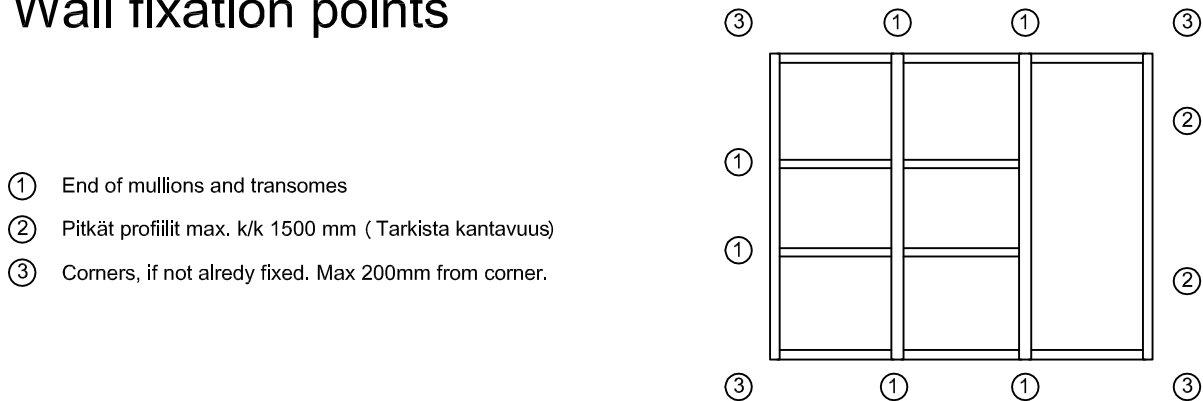
Door fixation points



Window fixation points



Wall fixation points



01.04.2016

8. Maintenance

Work description / N98si Thermally insulated doors and windows

1. Type

Thermally insulated aluminium doors and windows R72 should be made in accordance with instructions for screw or corner crimp connection, suitable aluminium glue should be used.

2. Materials

- Profiles AW-6060 T6
- Gaskets EPDM-rubber
- Thermal breaks Pa 6,6
- Screws DT-DS 600 DIN 50021 or A2

3. Surface treatment

Anodisation

Aluminium profiles are anodised in light and weather proof anodisation.

Colour.....

Painting

Powder coating in a needed colour code

Colour.....

4. Glazing

Type of glazing..... Glazing and appropriate selection of gaskets and glazing lists should be done in accordance with R72 glazing instructions. Only gaskets approved by Nokian Profiles has to be used.

5. Assembly

R72 structures has to be made in accordance with given instructions (Workshop manual).

6. Adjustment to the building frame

Elements are adjusted to the building frame so, that applied forces are reliably transferred to the supporting frame and not going to be damaged by deformation or thermal movements. Fixation parts to be used are standard Nokian Profiles parts or made of rustproof material. Joint between R72 structure and building frame should be tighten with appropriate materials.

7. Protection during construction works

Surfaces of aluminium profiles should be protected from drops of finishing materials, welding, mechanical damages and etc.

8. Functional requirements

Ready made structures should withstand all designed loads and transfer them to the building frame. Structures should be made to fulfill designed requirements in every aspect.

9. Care and maintenance

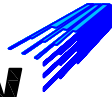
The cleaning of profiles is carried out with clean water and sponge. Mild detergent with neutral pH-value (5-7) can be used.

Alkaline detergents ARE FORBIDDEN.

Window moving parts of fittings should be time to time greased.

Door hinges and closers should be adjusted before start of exploitation.

Door closers should have function of opening brake.



SYSTEM:	N98si Thermally insulated door and window system	
MATERIALS:	Alloy EN AW-6060 [Al MgSi] EN 573 EN 755 or DIN 1748	
PROFIILIMITAT:	EN 755 or DIN 1748 EN 12020 or DIN 17615	
SURFACE TREATMENT:	Anodising	
	Measuring oksid thickness	SFS-EN ISO 12373-1
	Measuring thickness level	SFS-EN ISO 2360
	Sealing	SFS-EN 12373-5 tai SFS-ISO 2932
	Pulverimaalaus polyesteripohjaisella pulverilla	
	Kerrosaksuuden mittaus	SFS-EN ISO 2360
	Hilaristikkokoe	SFS-EN ISO 2409
LAATUJÄRJESTELMÄ:	According Lloyds Register Quality Assurance system ISO 9001. Certificate number LRQA no. 922165.	
YMPÄRISTÖJOHTAMIS- JÄRJESTELMÄ:	According Lloyds Register Quality Assurance environment quality system ISO 14001. Certificate number LRQA no. 922165.	

Nordic Aluminium plc
Architectural systems

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8.2

**NOKIAN
PROFILES****N98si**