

# 3 R12

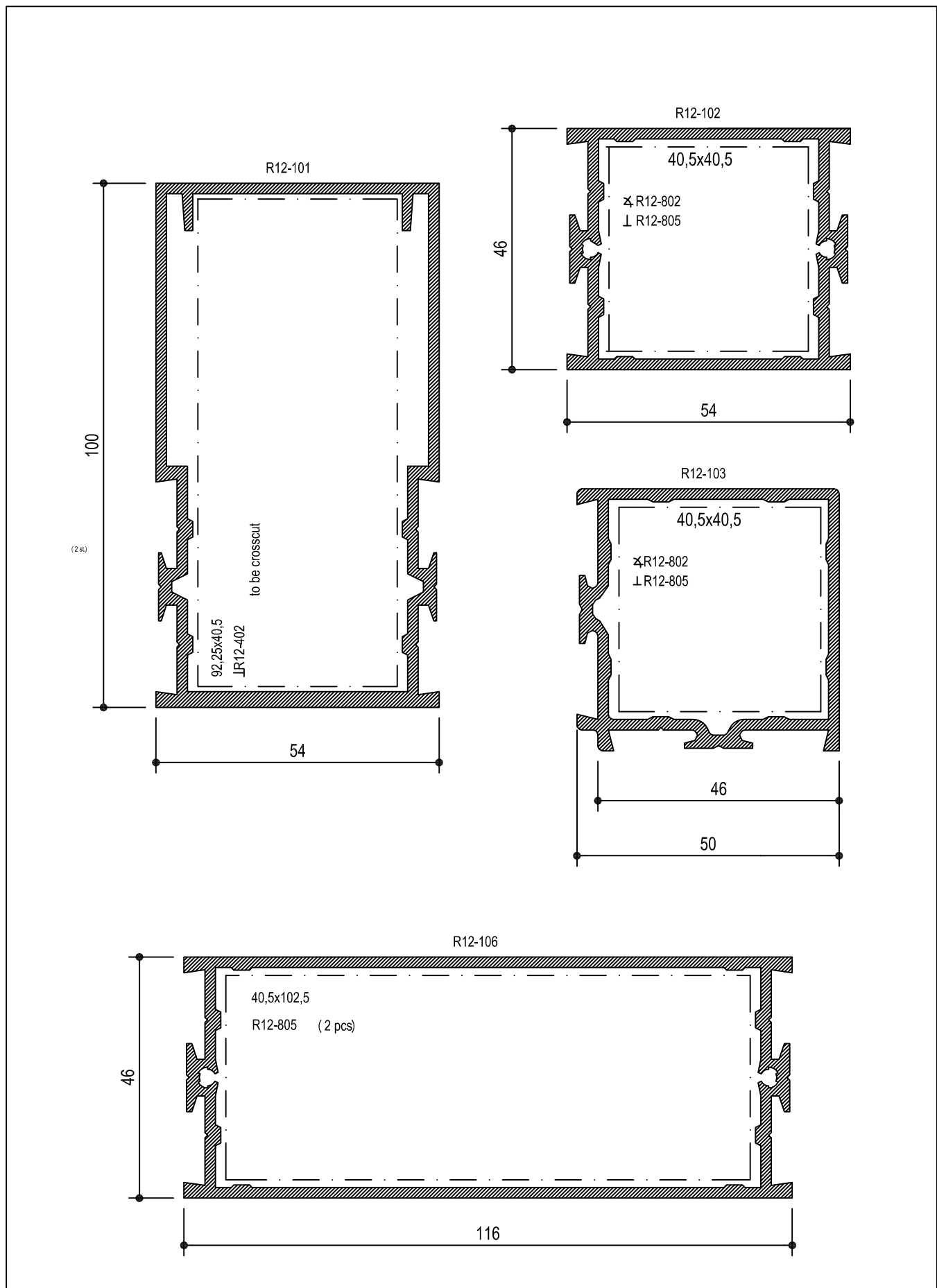
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## R12 BALUSTRADE

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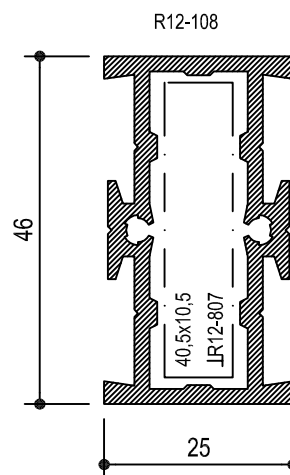
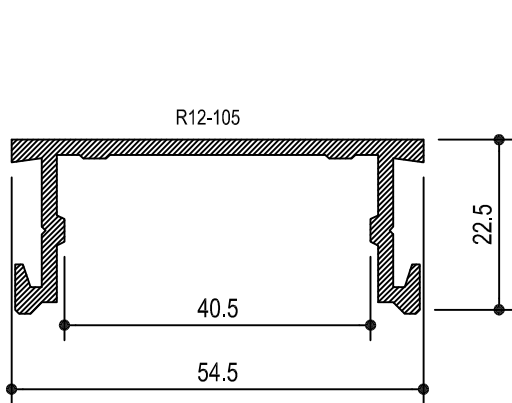
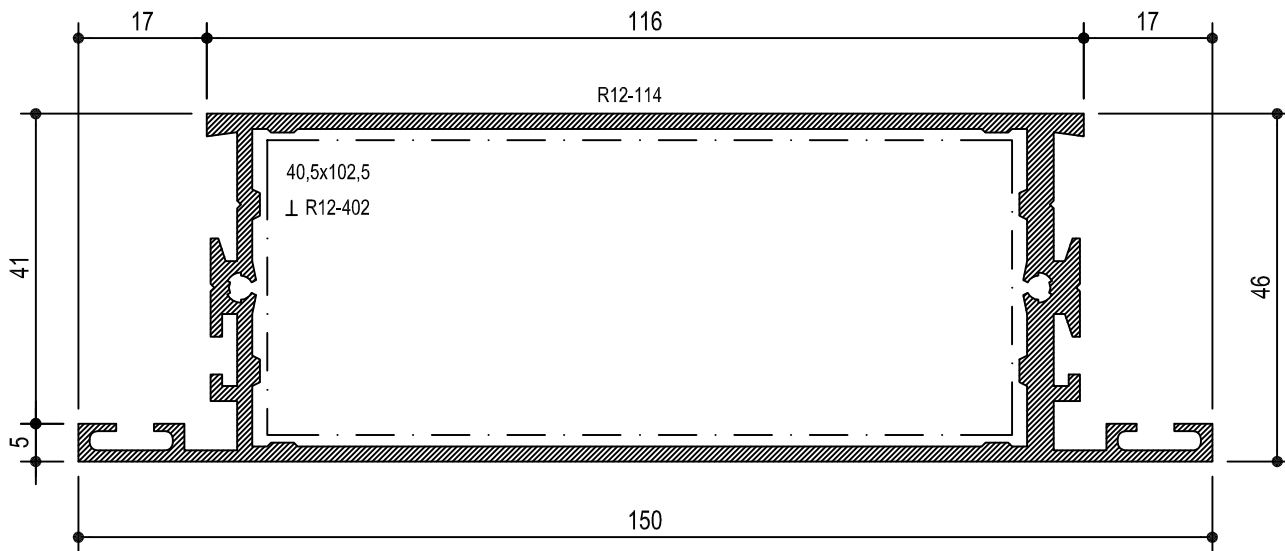
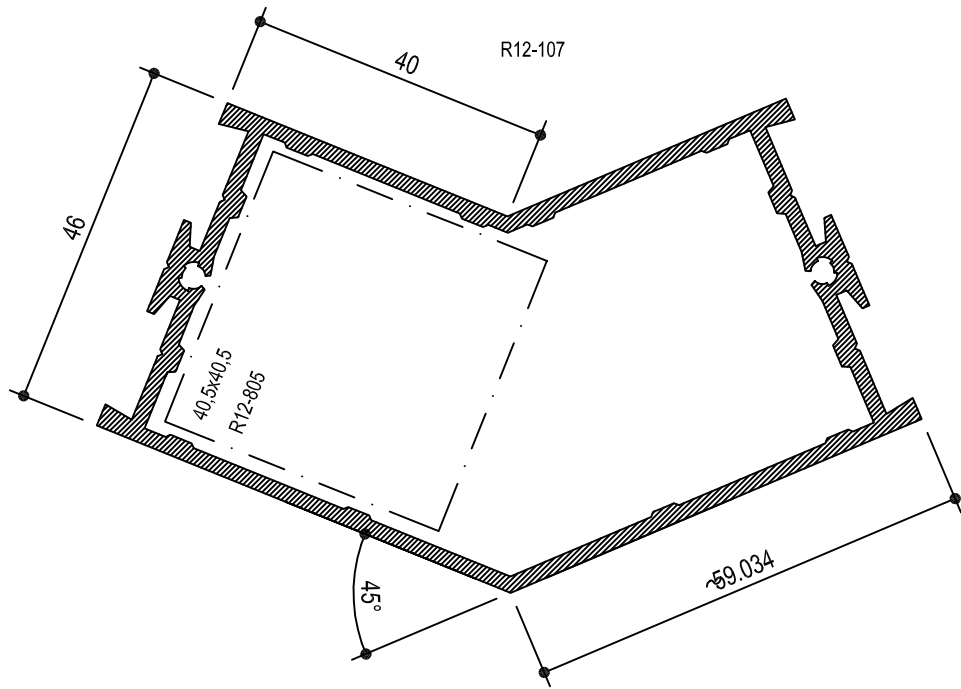
Profiles 1:1

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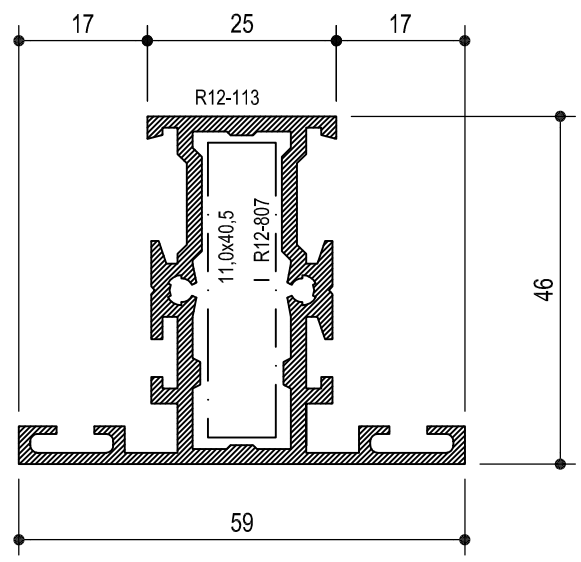
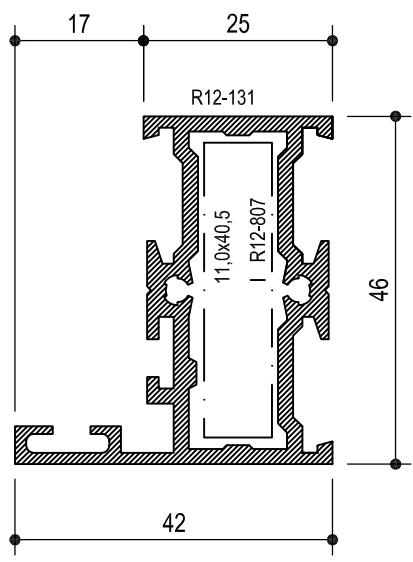
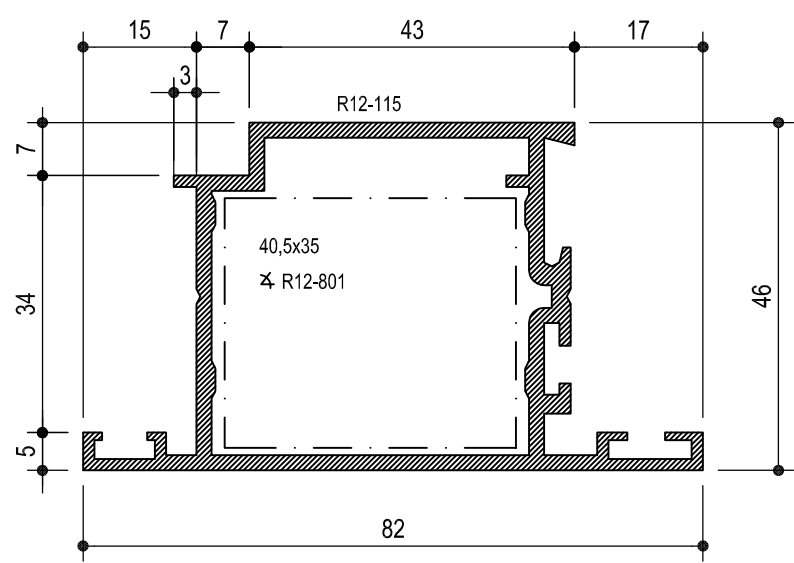
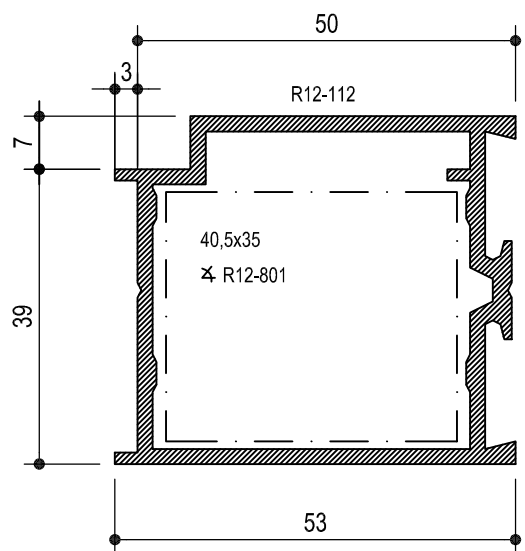
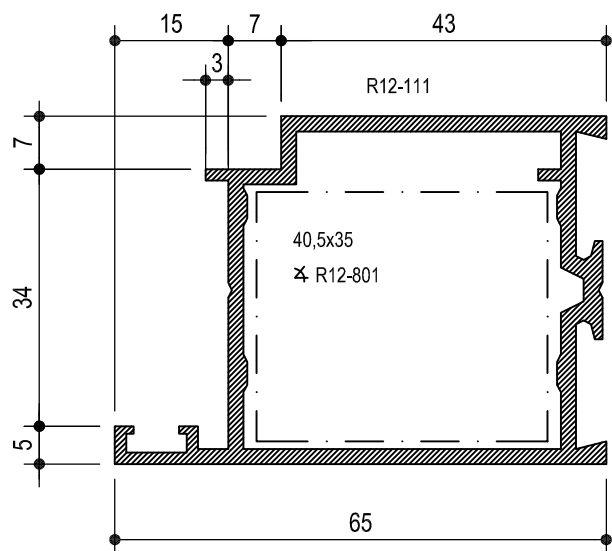
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Profiles 1:1



**R12**

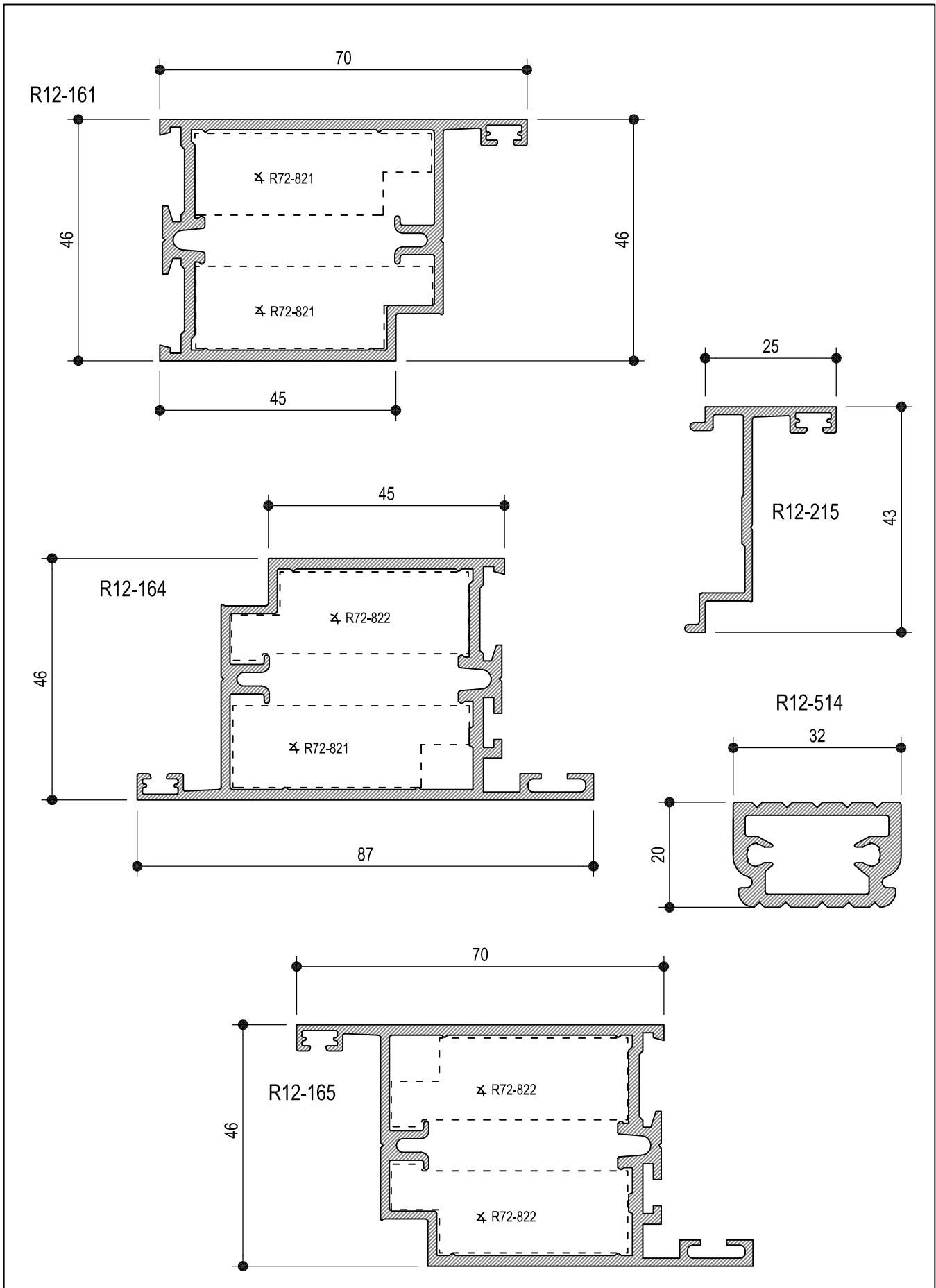
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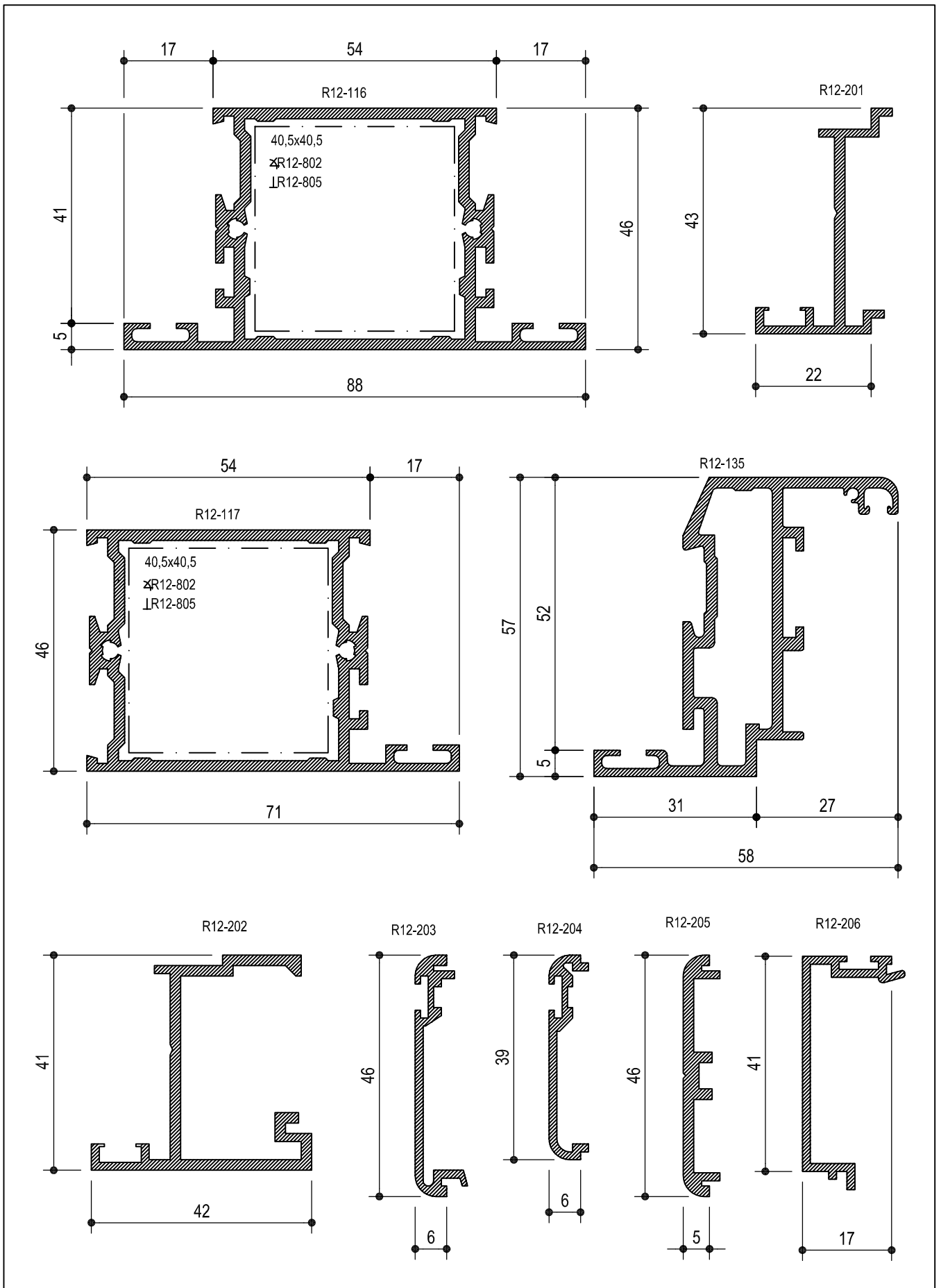
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Profiles 1:1



**R12**

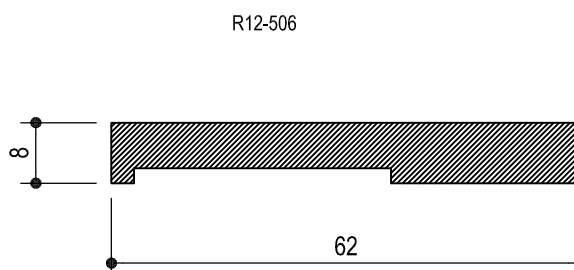
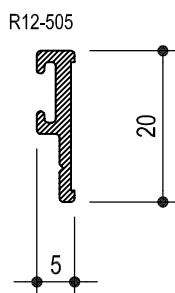
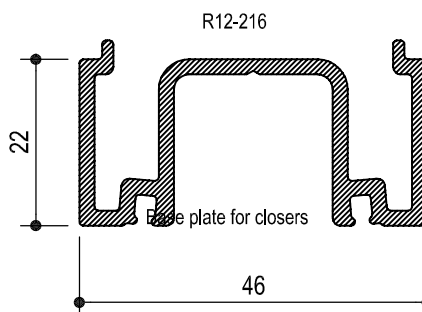
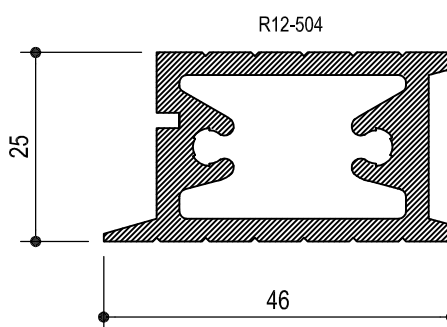
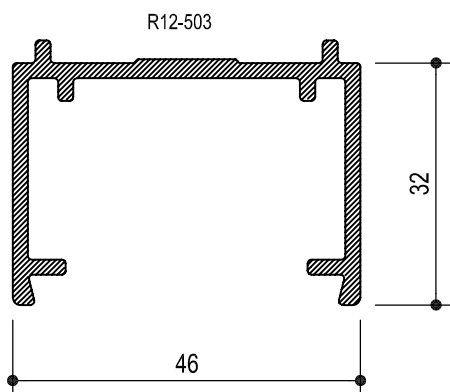
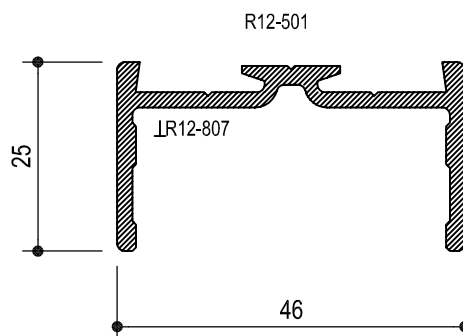
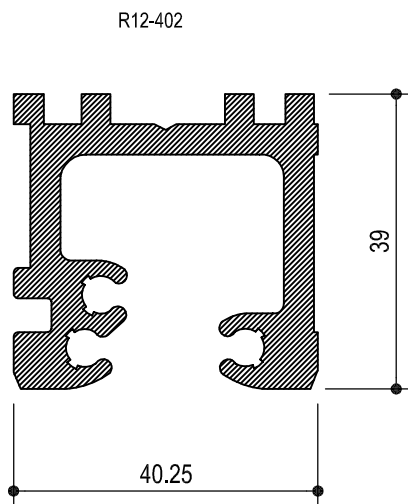
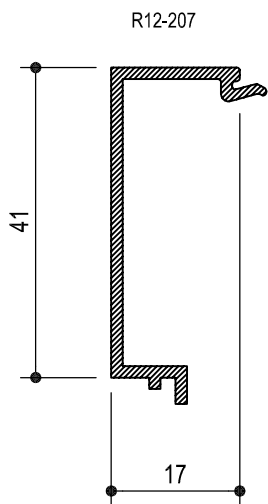
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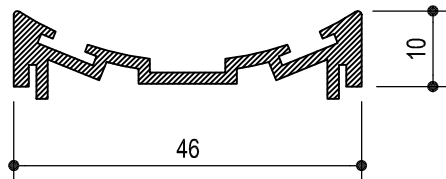
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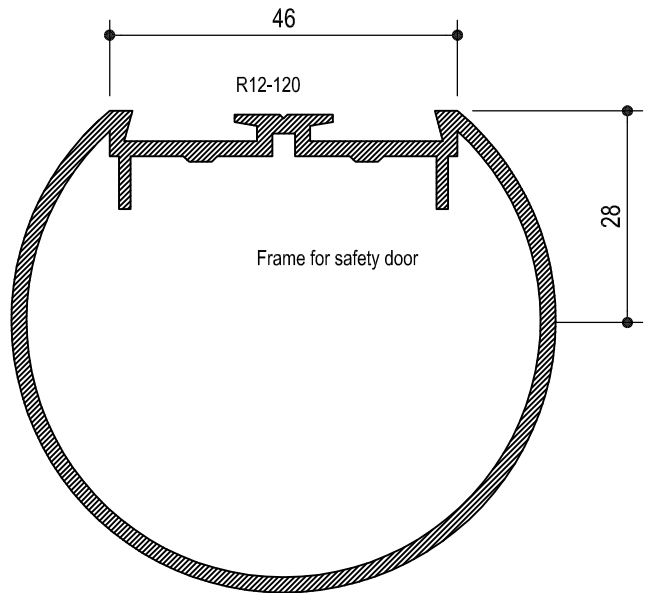
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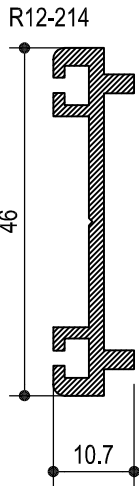




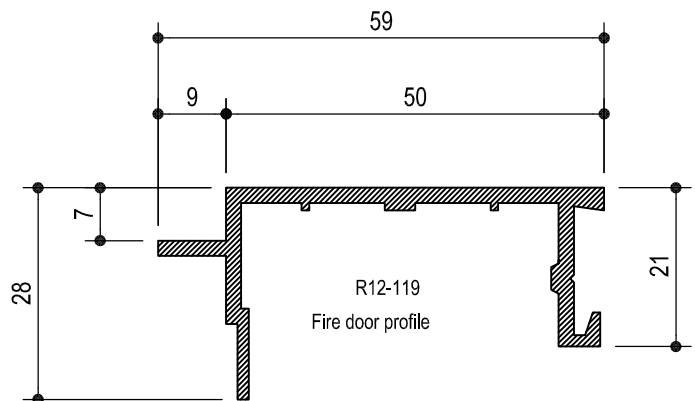
R12-208  
Frame for secure door



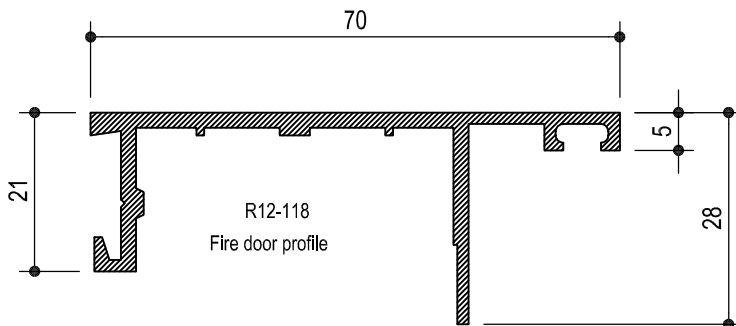
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Frame for safety door



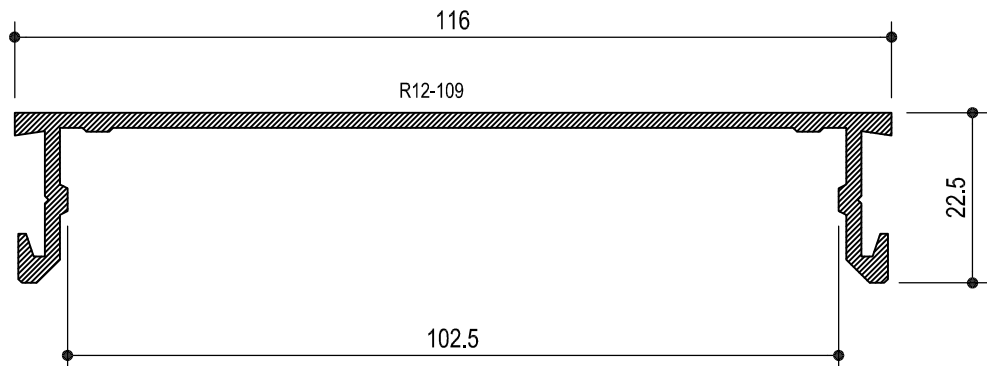
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R12-119  
Fire door profile

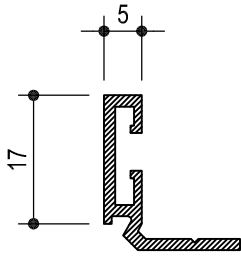


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Fire door profile

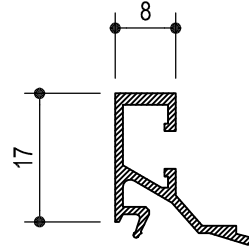


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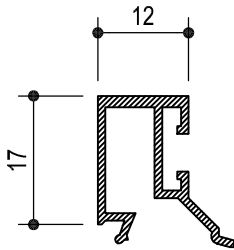
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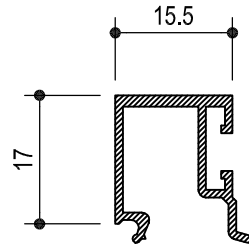
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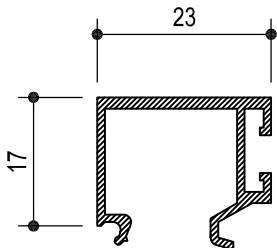
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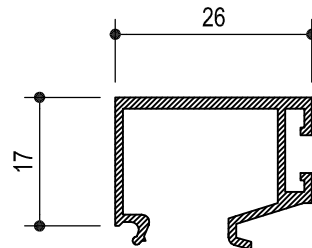
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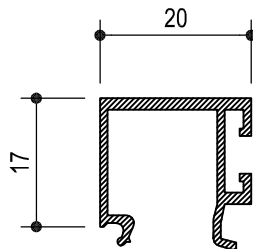
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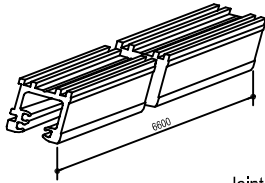


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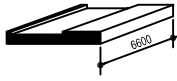


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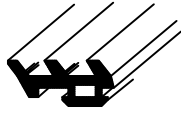




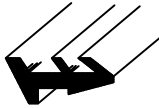
Joint profile  
R12-402



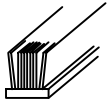
Base plate for closer  
R12-506



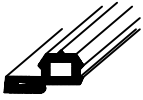
Sealing gasket no 611



Sealing gasket no 612



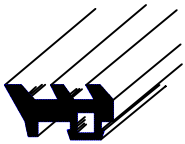
Brush seal no 614



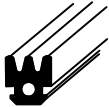
Sealing gasket no 615



Sealing gasket no 616



Sealing gasket no 619



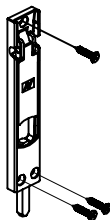
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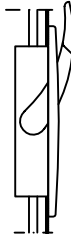
Brush seal no 642



Sealing gasket no 643



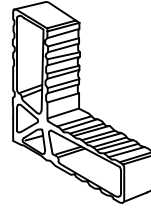
Savio flush bolt ( surface mounted)  
1157/13



Double door lever bolt  
R12-727

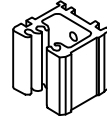


Double door flush lever bolt  
R72-728



Joint section  
R12-802  
40,5x40,5 mm  
for profiles

R12-102  
R12-103  
R12-116  
R12-117



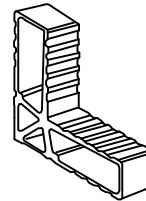
Joint section  
R12-805  
40,5x40,5 mm  
for profiles

R12-102  
R12-103  
R12-106  
R12-107  
R12-114  
R12-116 2 pcs  
R12-117 2 pcs



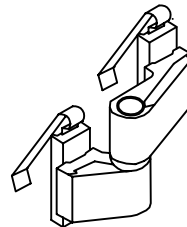
Joint section  
R12-807  
for profiles

R12-108  
R12-113  
R12-501

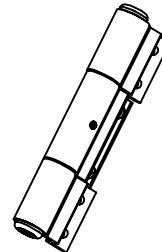


Joint section  
R12-801  
40,5 \* 35 mm  
for profiles

R12-111  
R12-112  
R12-115



Hinge  
R72-724-2 (2-leaf)  
R72-724 (3-leaf)



Hinge  
R72-722

# R12

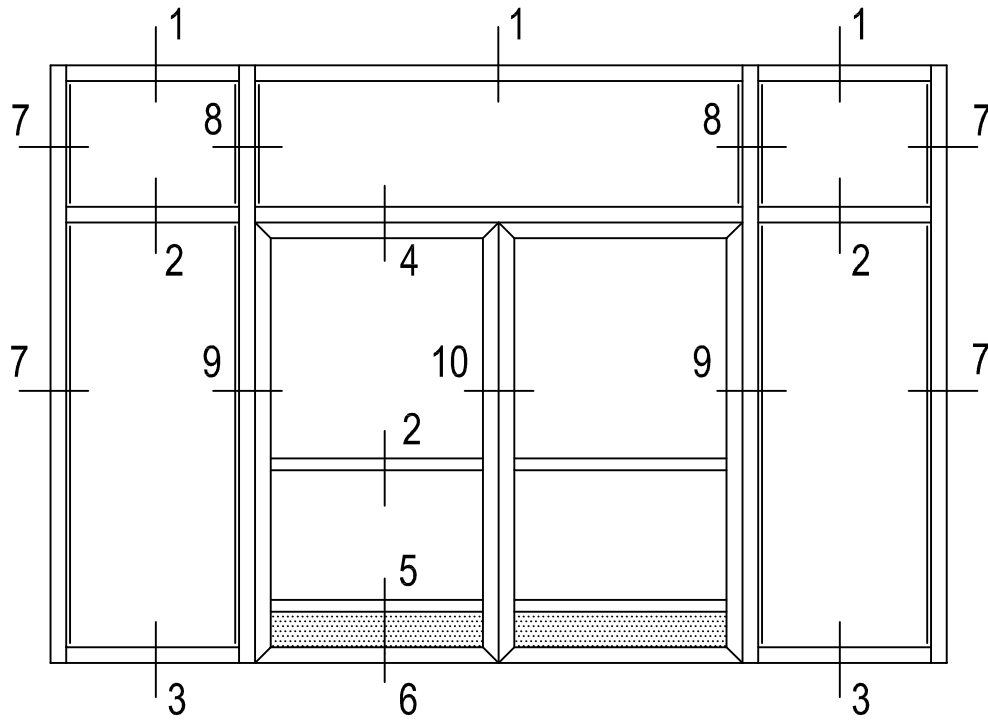
Accessories

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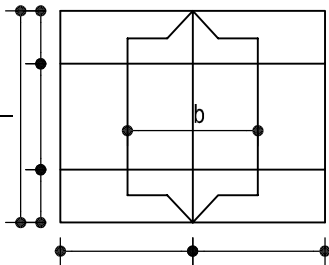
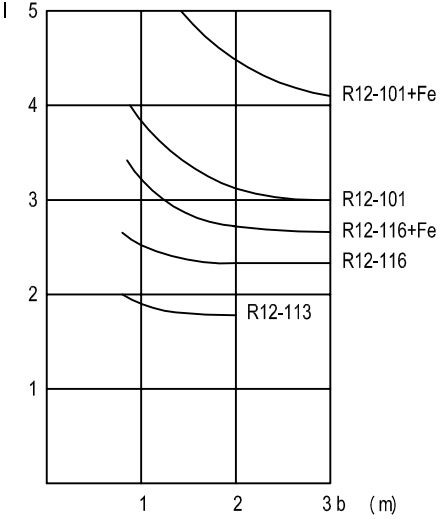
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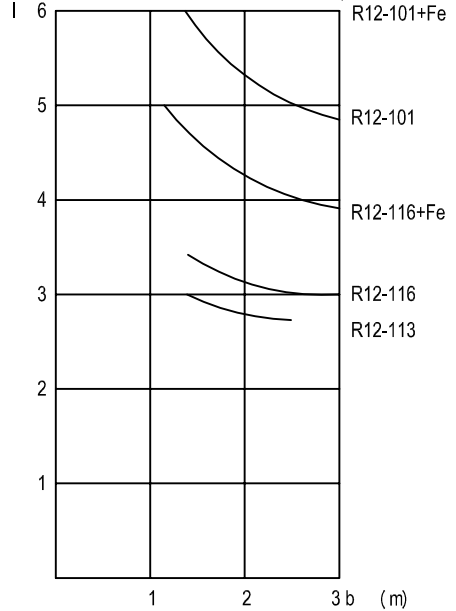


Frame measuring

(m) External wall



(m) Internal partition wall



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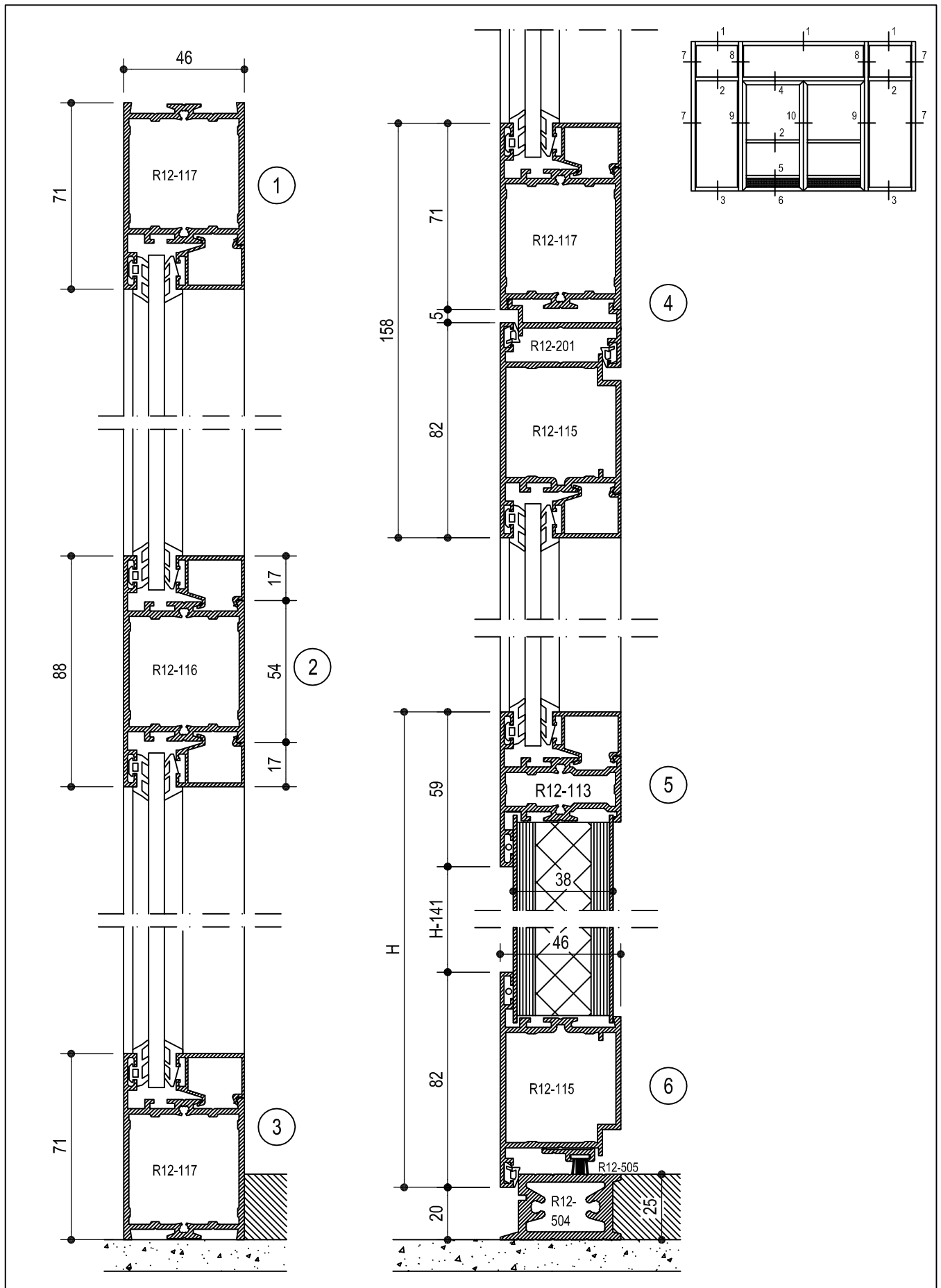
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**R12**

**11**

Door in glazed wall with inner edge glazed glazing



**R12**

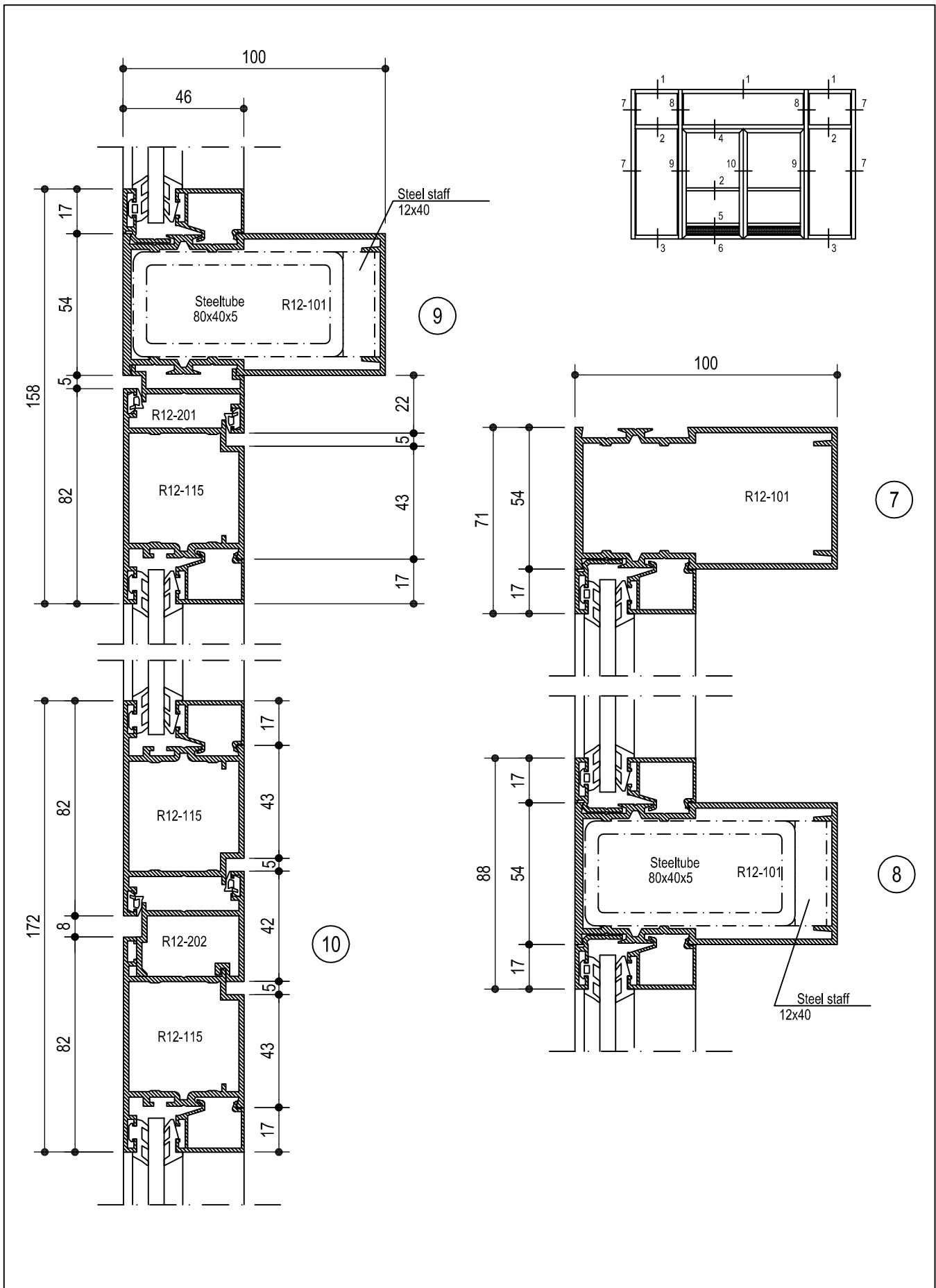
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PROFILES

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Door in glazed wall with inner edge glazed glazing 1:2

**12**



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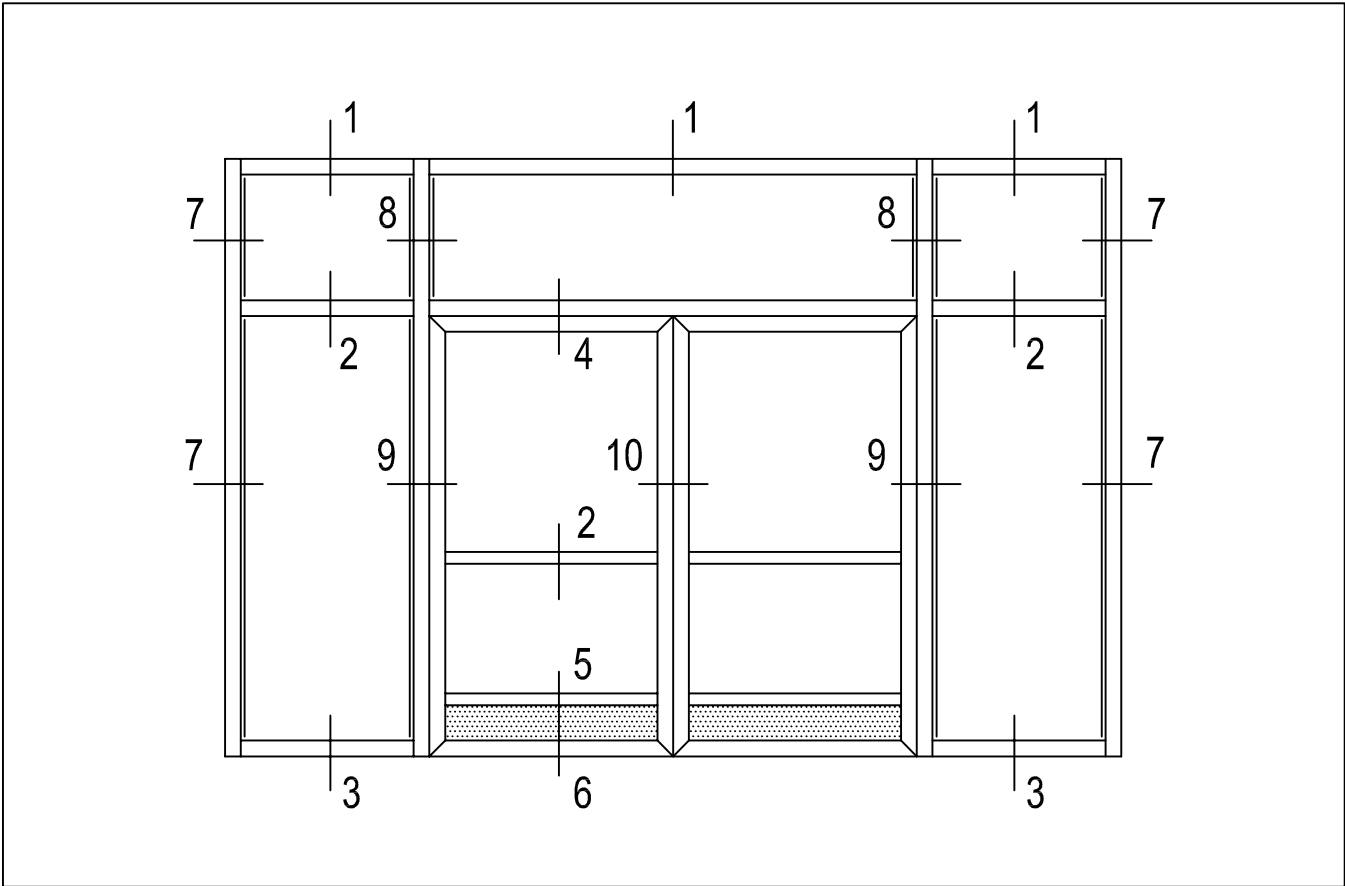
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PROFILES

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**R12**

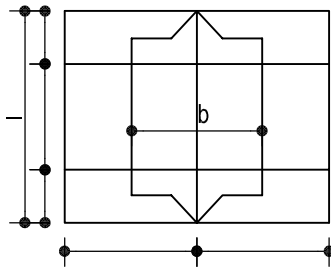
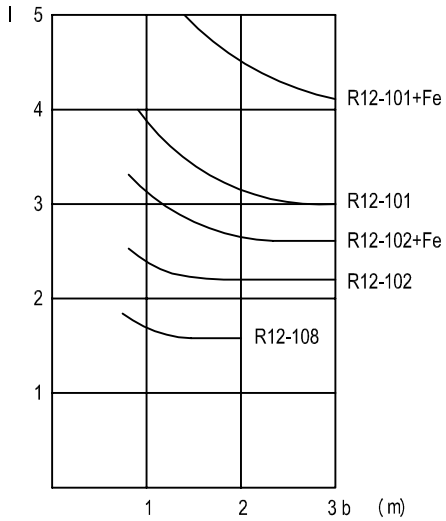
Door in glazed wall with inner edge glazed glazing 1:2



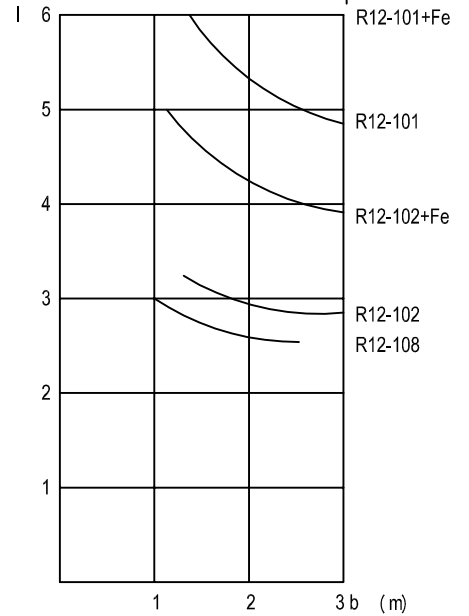
Frame sizing

(m)

External wall



(m) Internal partition wall



**R12**

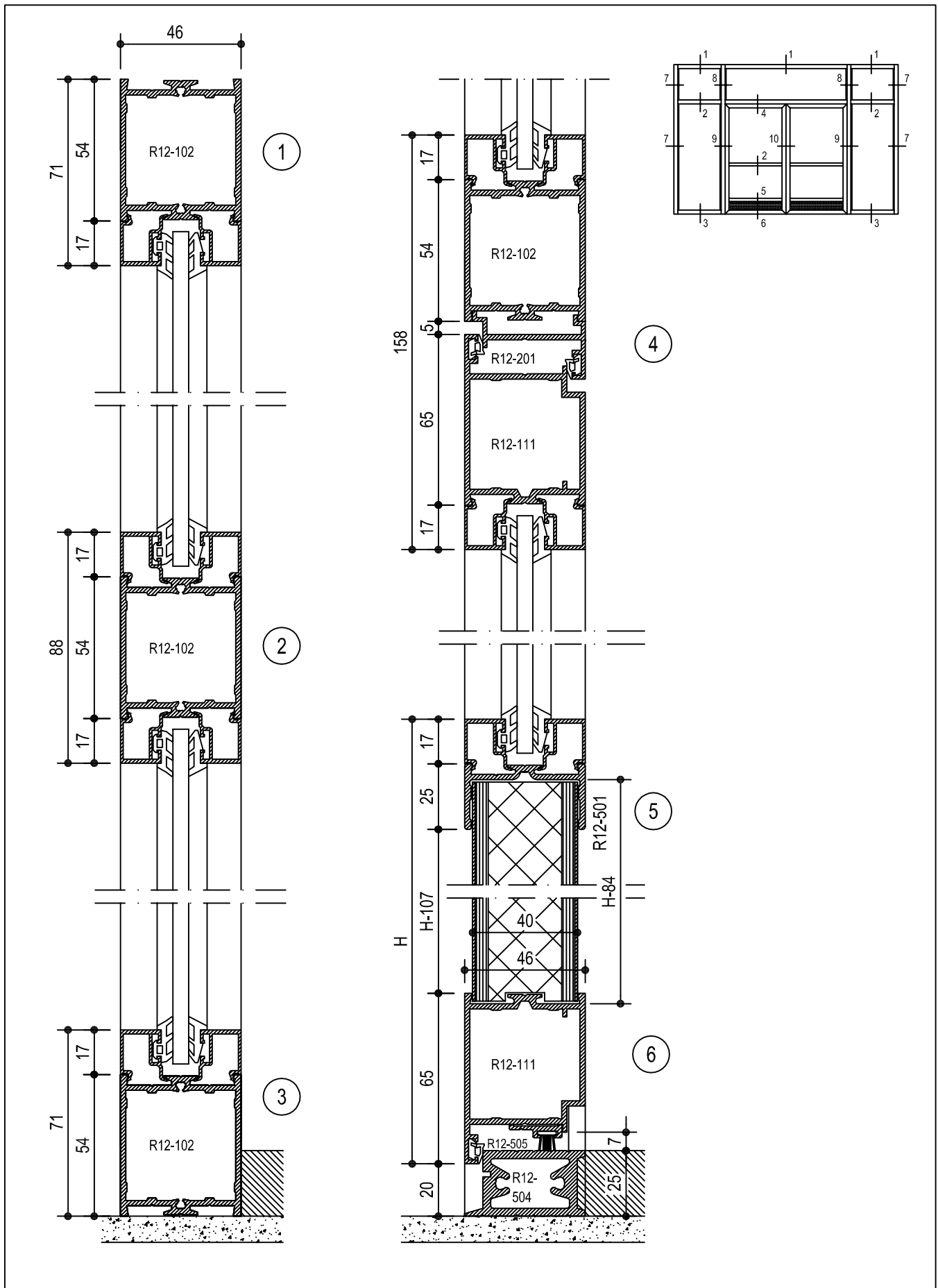
Door in glazed wall with centrally placed glazing

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PROFILES

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**NOKIAN  
PROFILES**

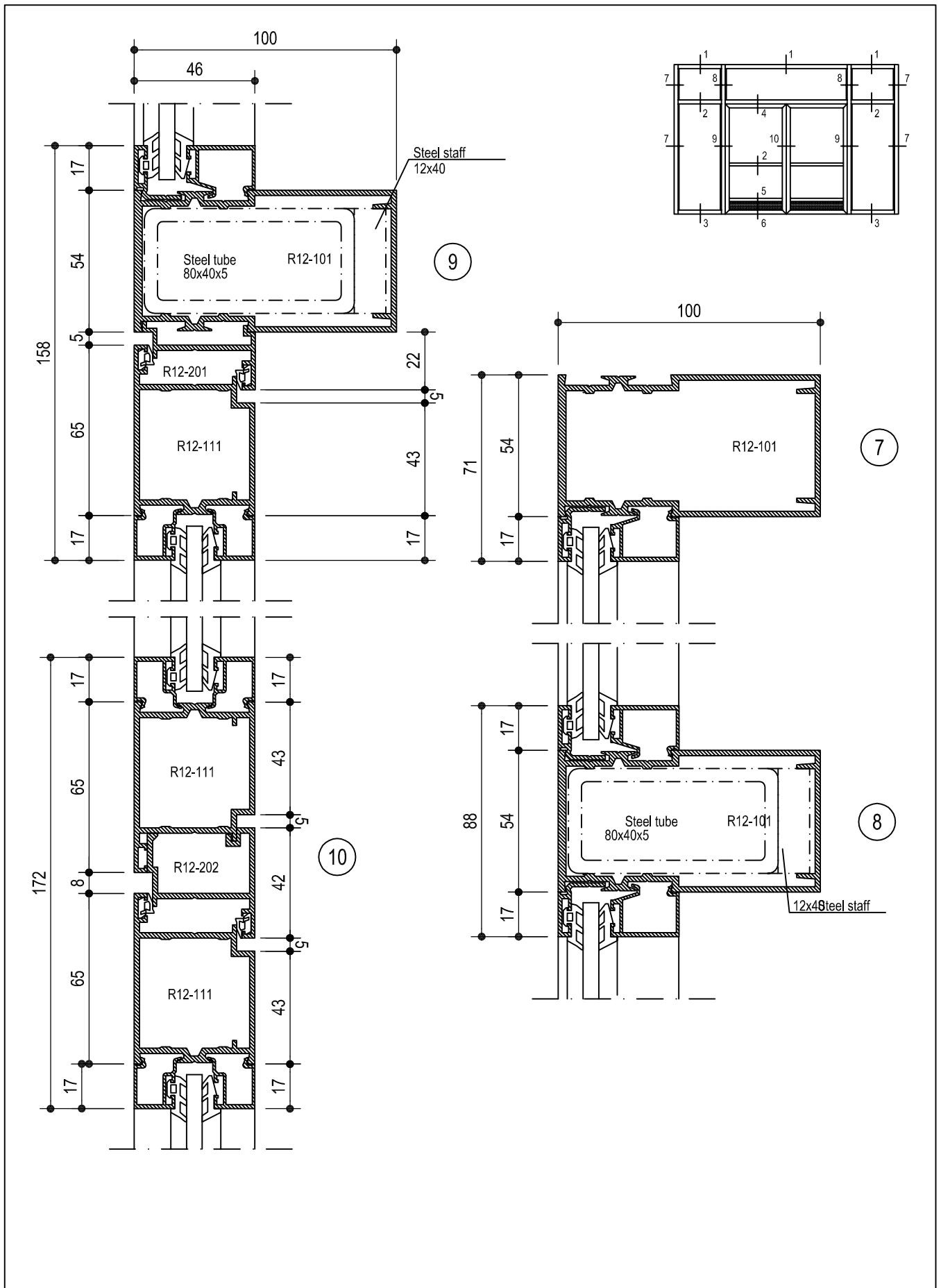


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**R12**

Door in glazed wall with centrally placed glazing 1:2





**R12**

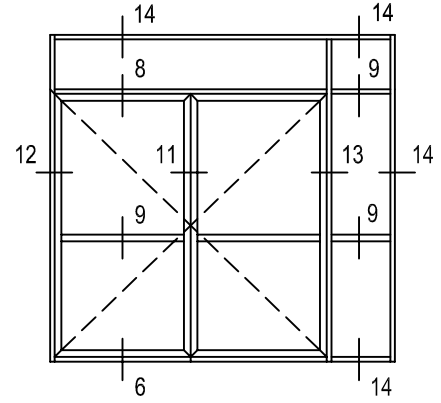
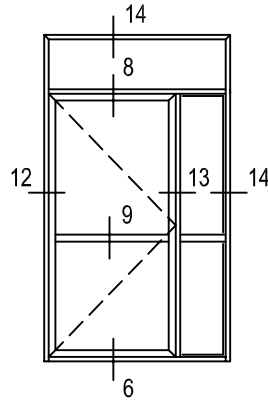
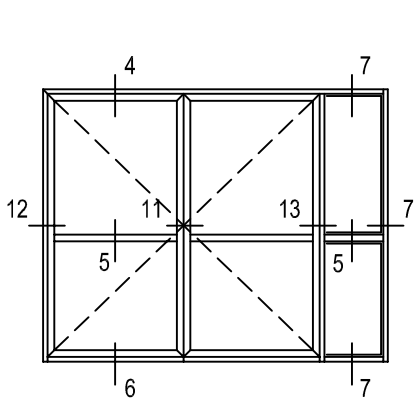
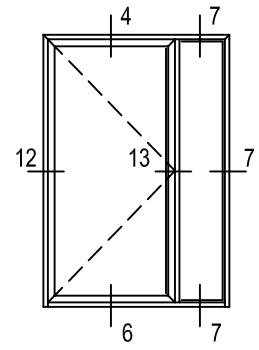
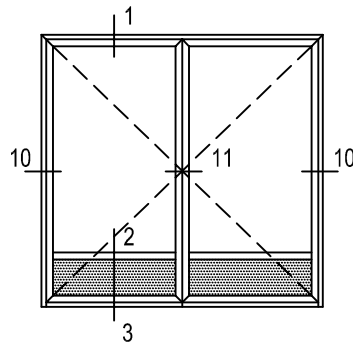
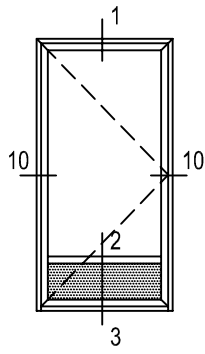
**NOKIAN**  
PROFILES

01.07.2014

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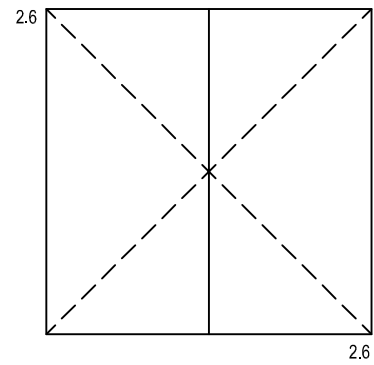
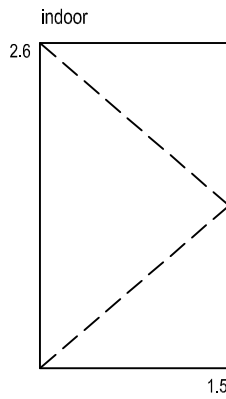
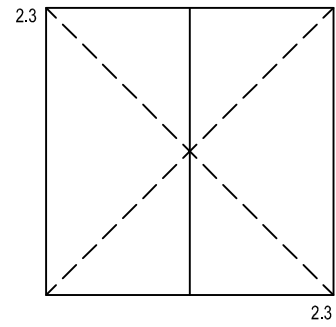
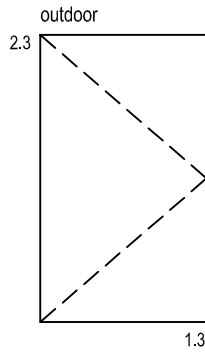
Door in glazed wall with centrally placed glazing 1:2

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maximum sizes

Fittings are shown on pages 29-33.  
For intensive use doors we recommend a 3-leaf hinge



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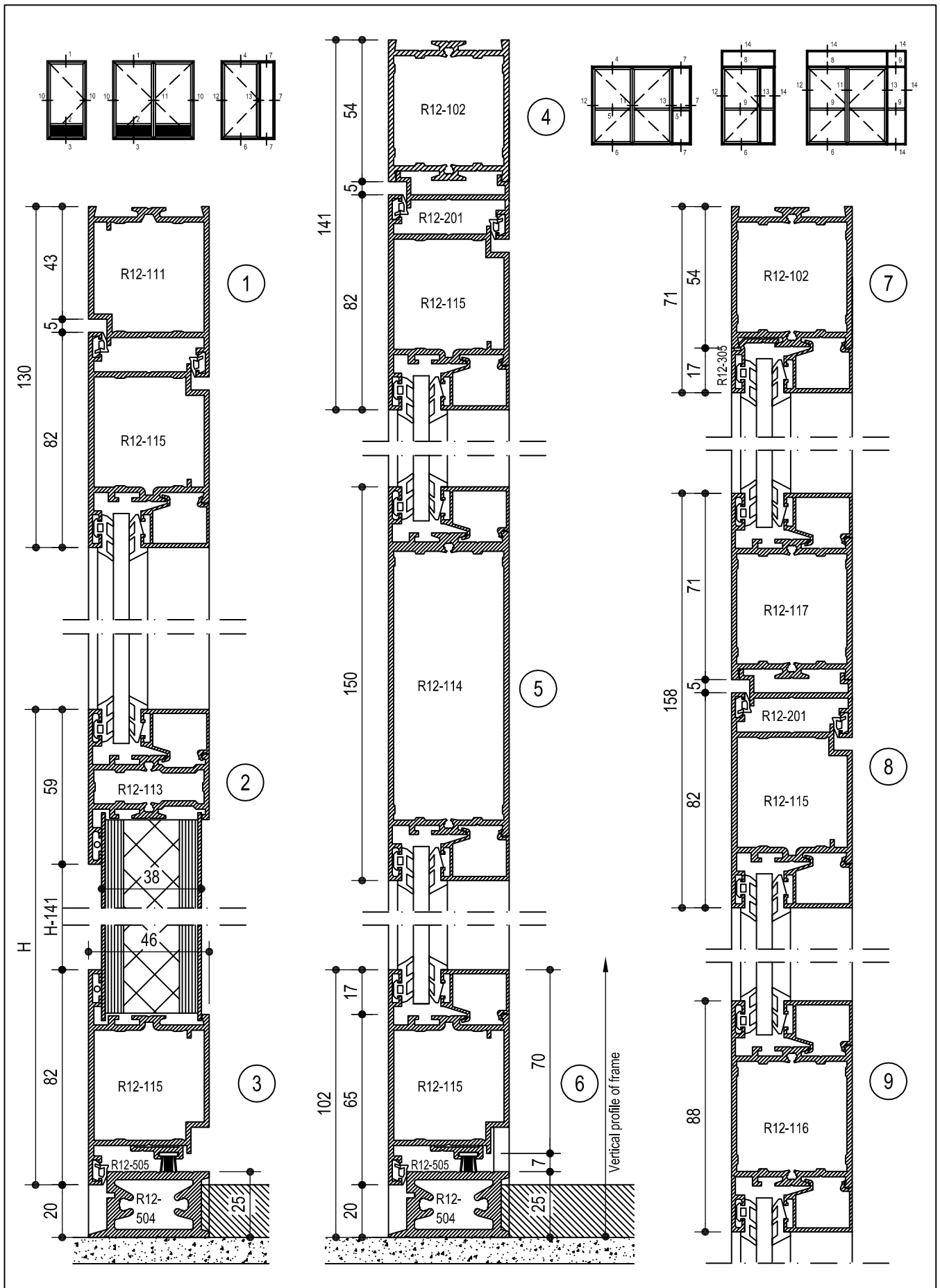
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**NOKIAN**  
PROFILES

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Door with inner edge placed glazing



# R12

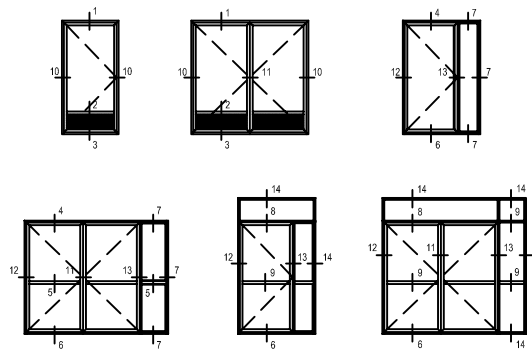
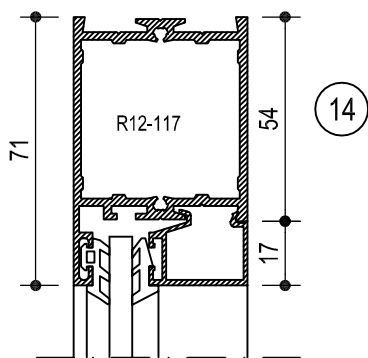
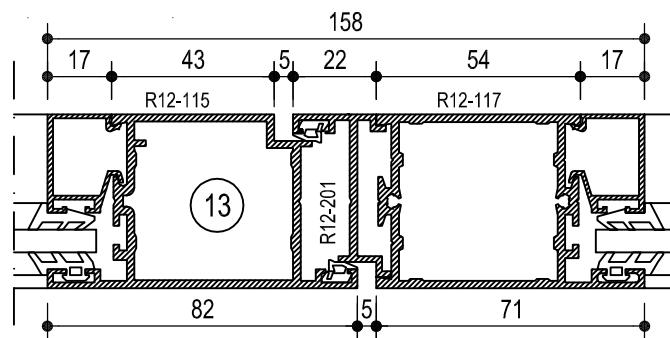
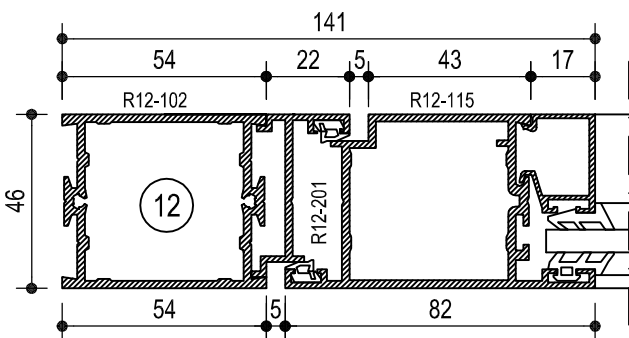
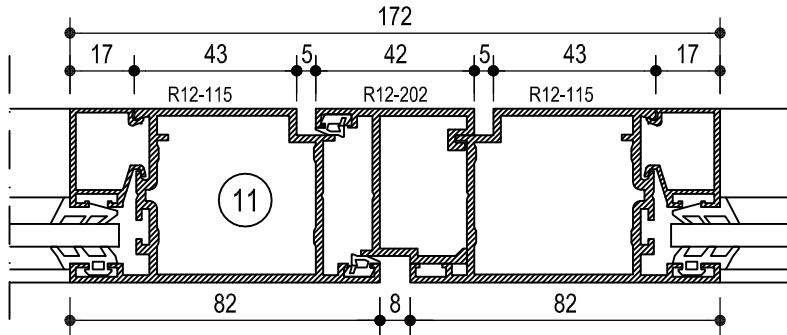
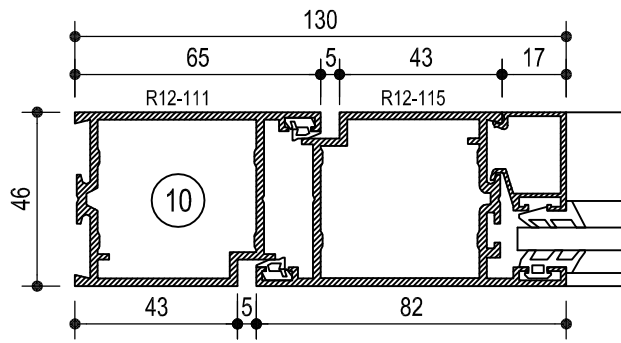
Door with inner edge placed glazing 1:2

**NOKIAN**  
PROFILES

01.07.2014

**3**

**18**



01.07.2014

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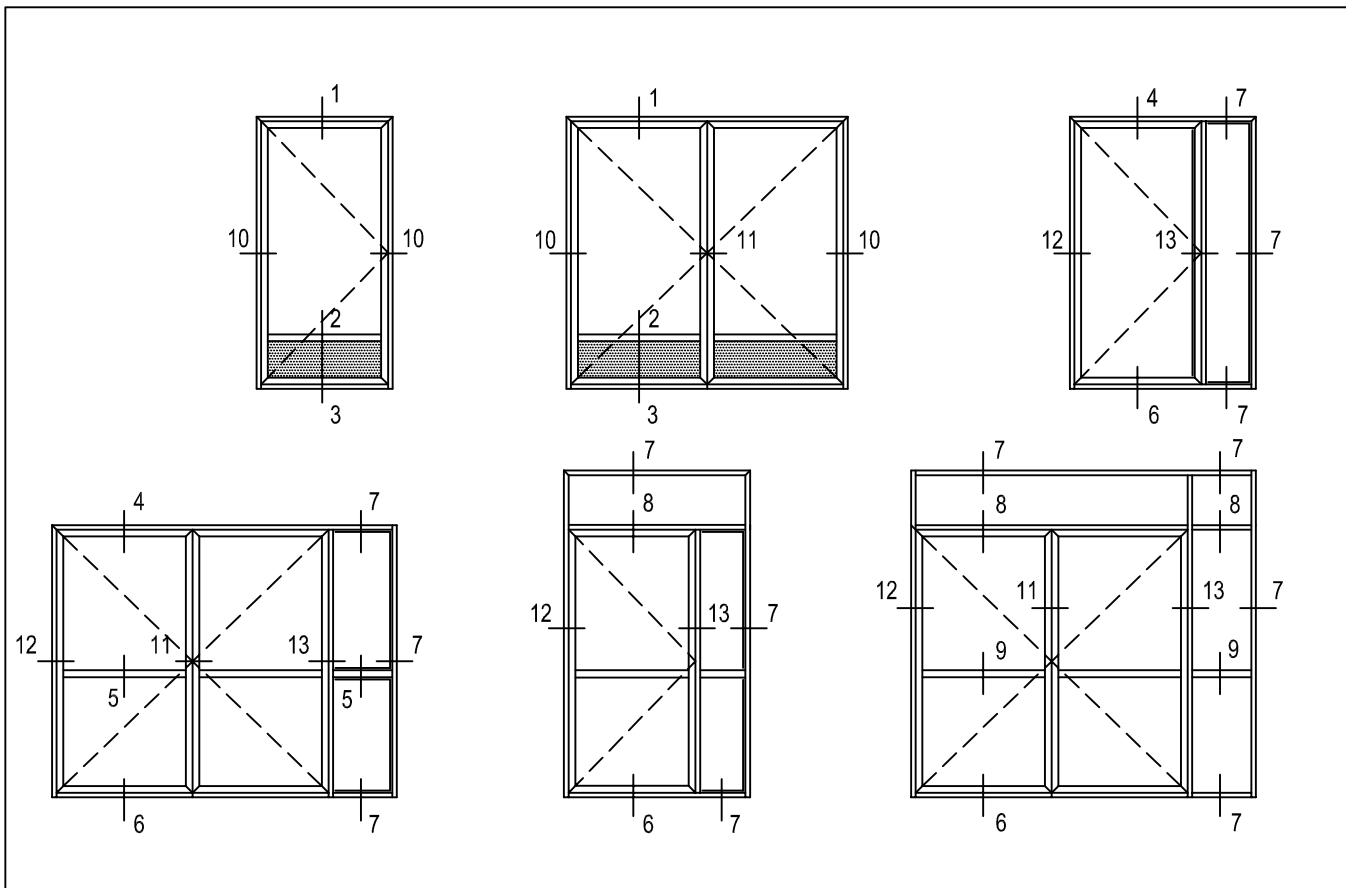
**NOKIAN**  
PROFILES



**R12**

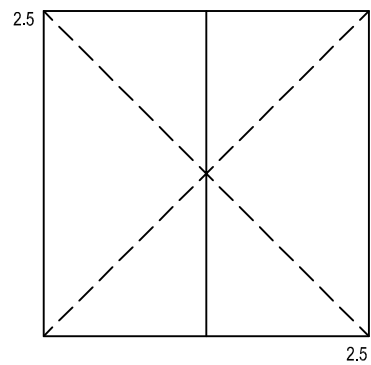
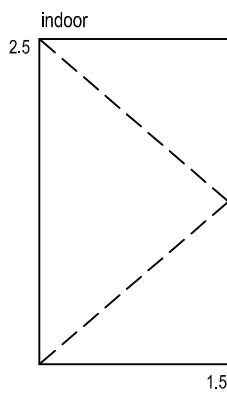
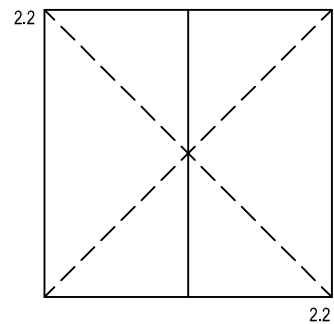
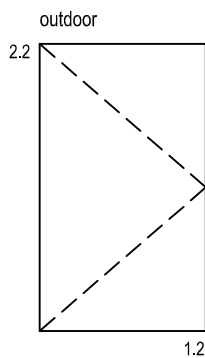
19

Door with inner edge placed glazing 1:2



Maximum door sizes

Fittings are shown on pages 29-33.  
For intensive use doors we recommend  
a 3-leaf hinge



**R12**

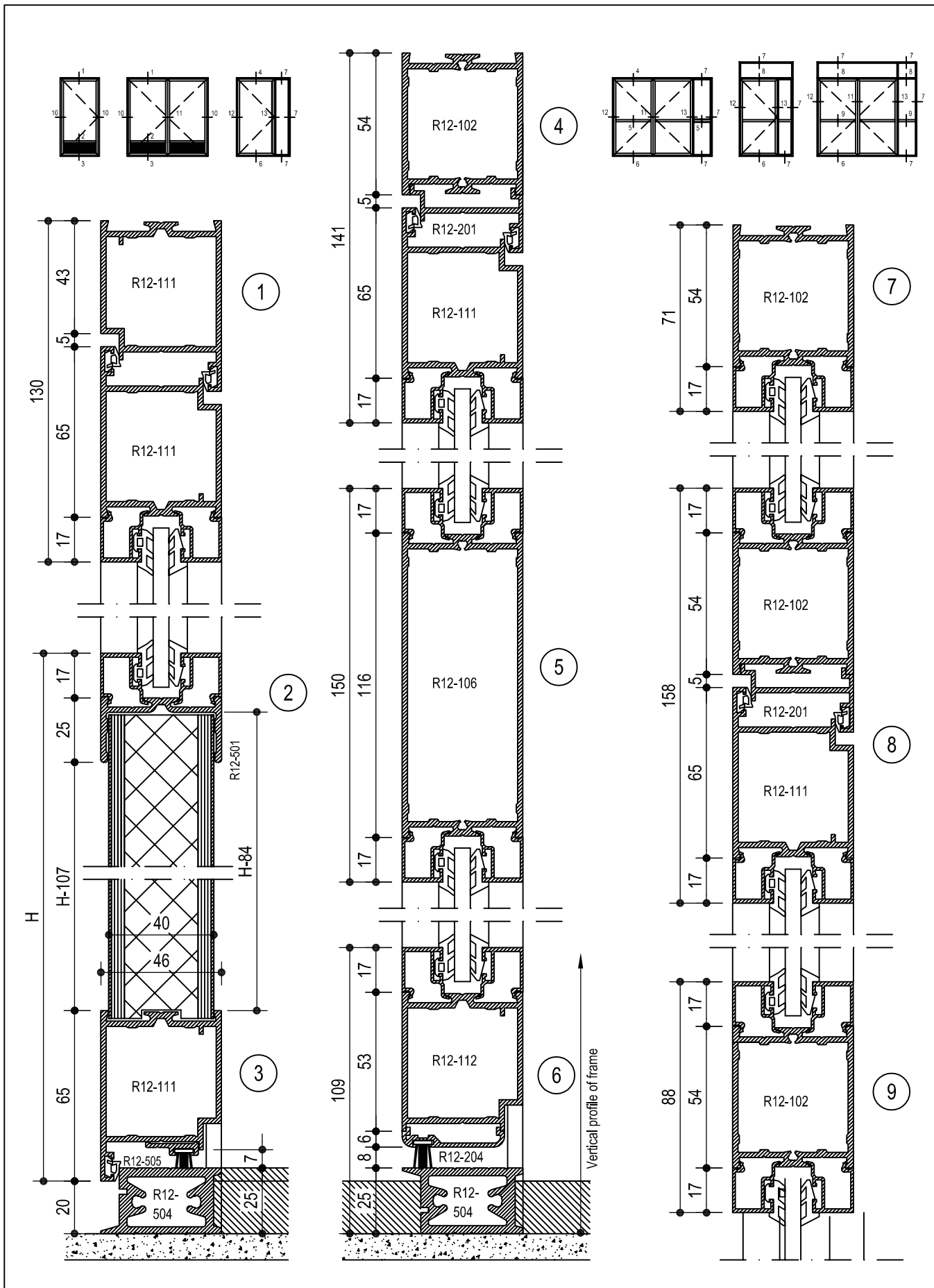
Door with centrally placed glazing

**NOKIAN**  
PROFILES

01.07.2014

**3**

**20**



01.07.2014

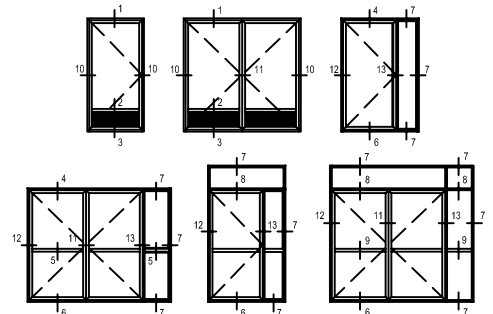
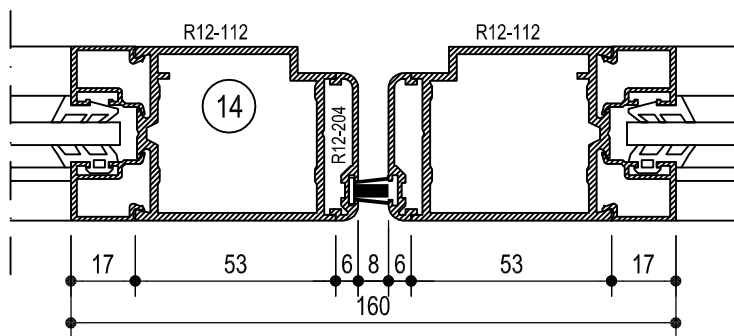
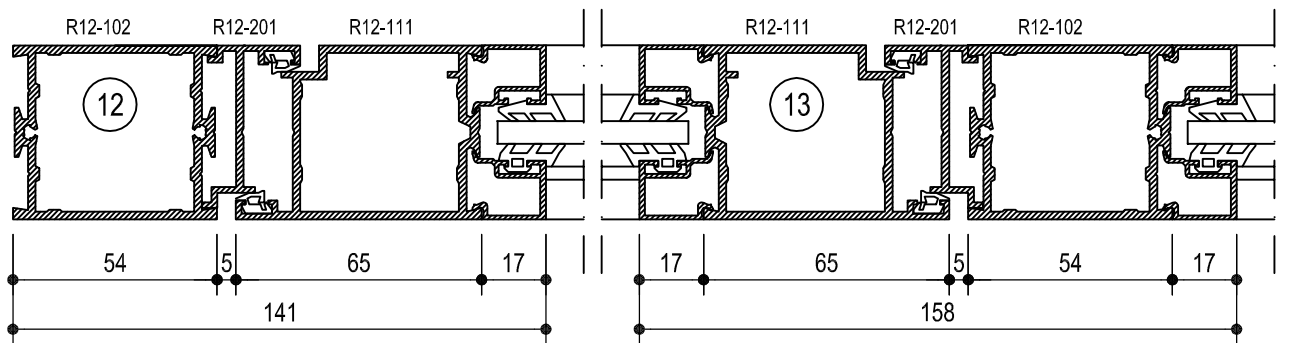
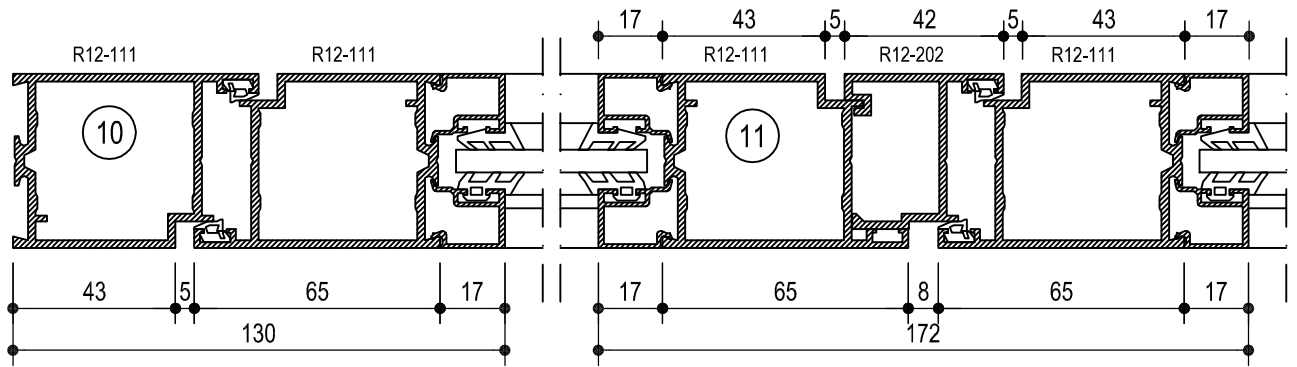
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**NOKIAN  
PROFILES**

**21**

**R12**

Door with centrally placed glazing 1:2



**R12**

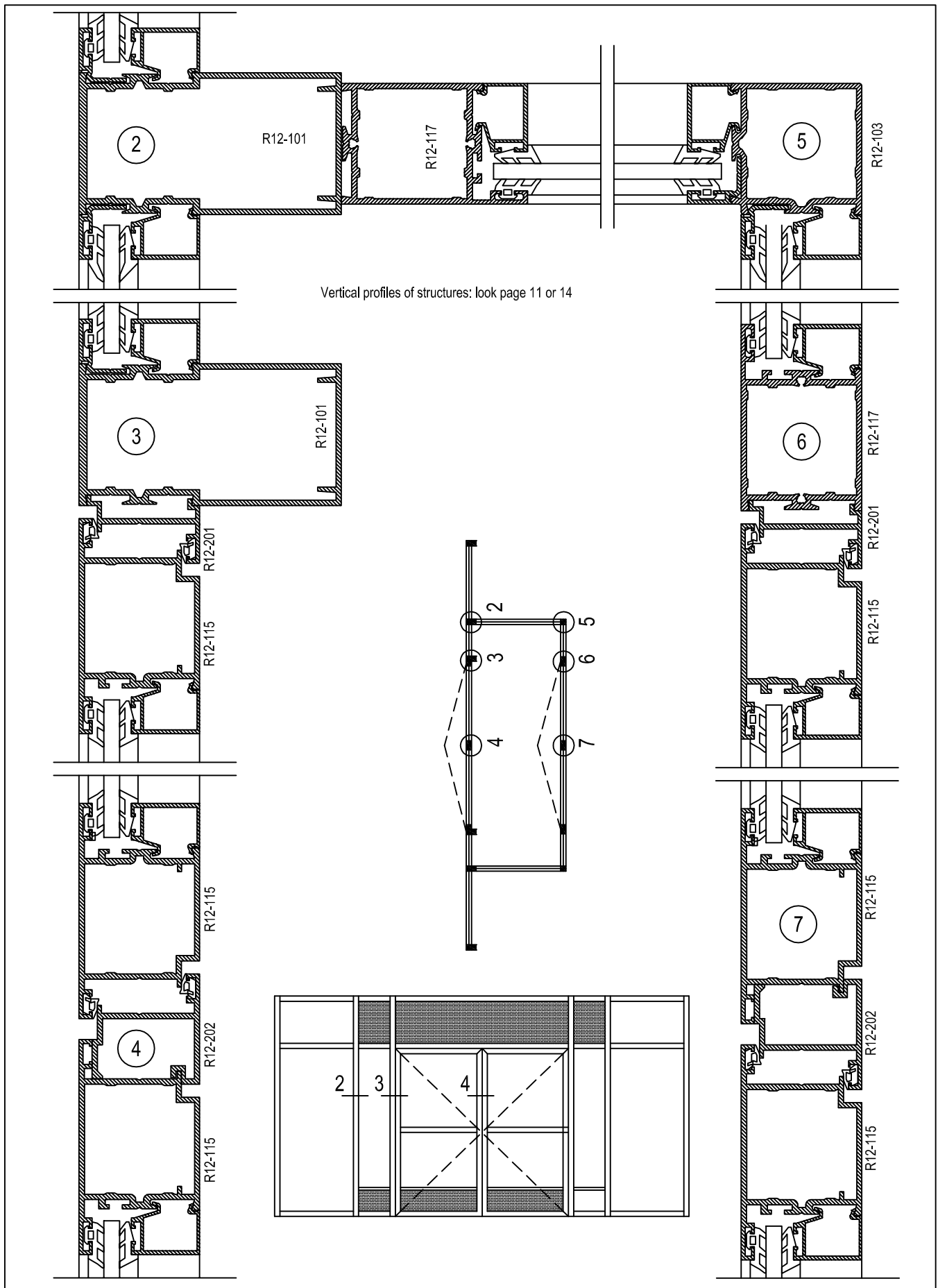
Door with centrally placed glazing 1:2

**NOKIAN**  
PROFILES

01.07.2014

**3**

**22**



01.07.2014

**3**

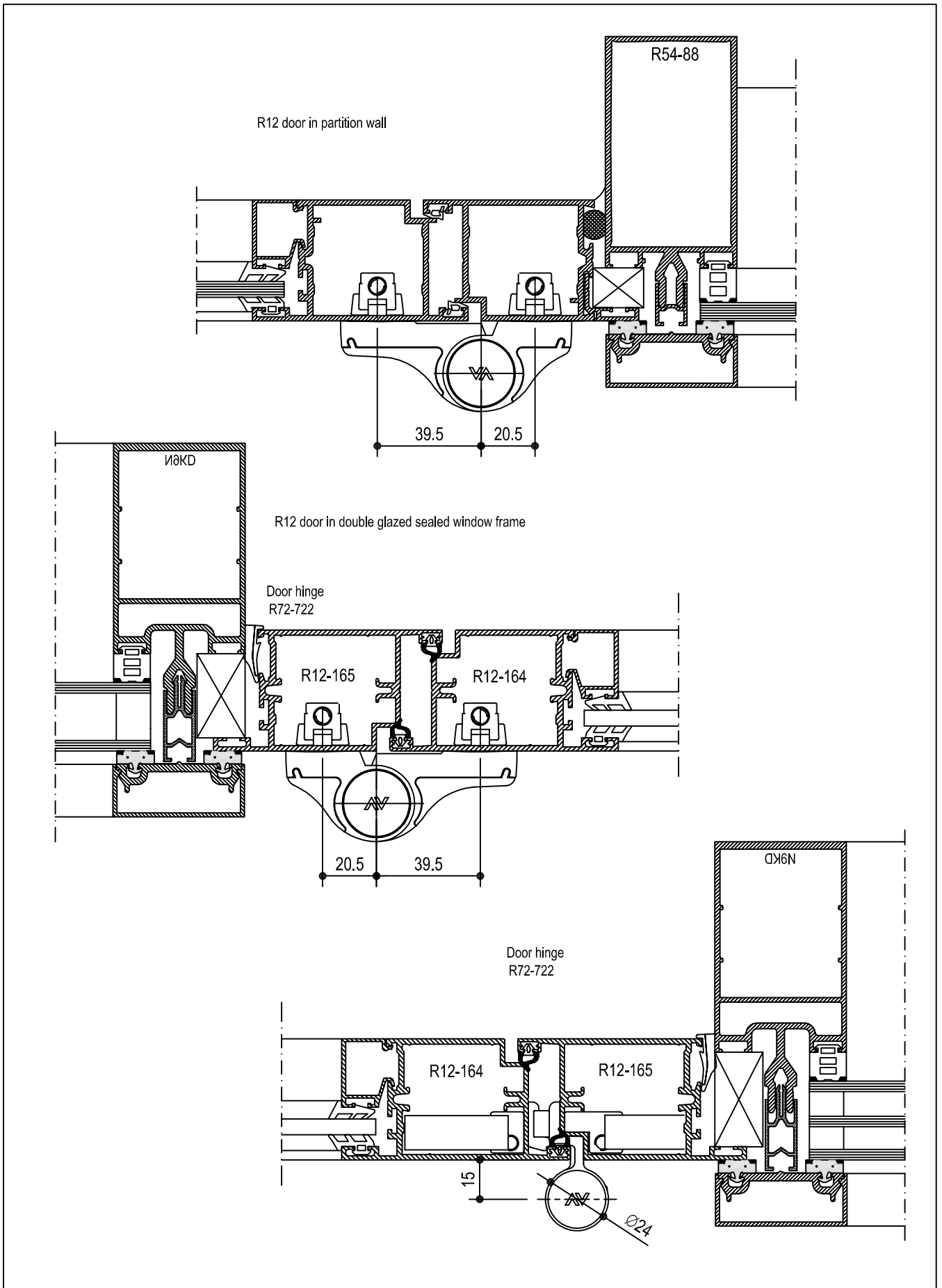
**NOKIAN**  
PROFILES

**R12**

**23**

Draught lobby 1:2





# R12

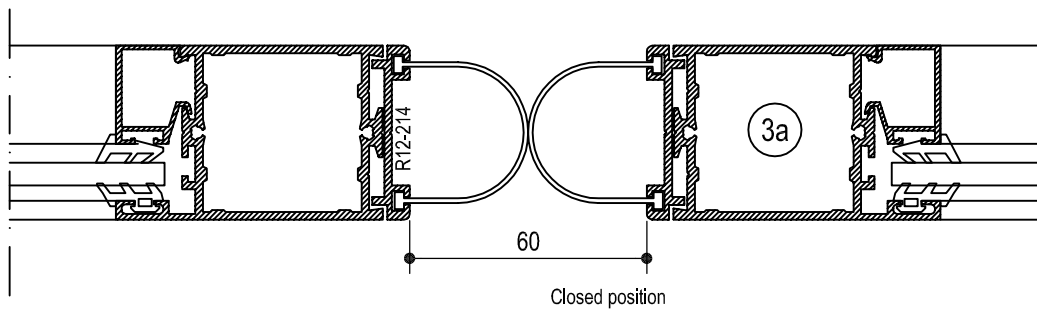
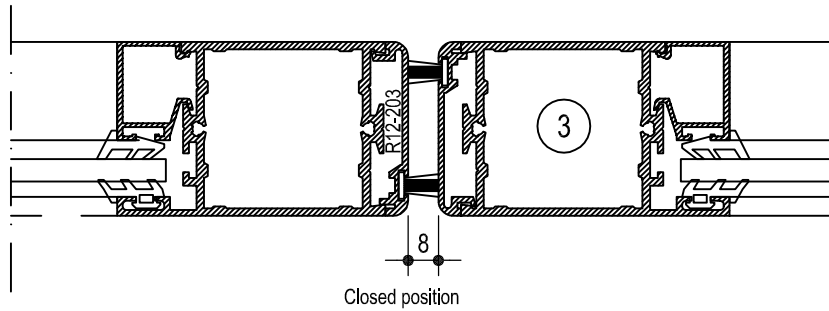
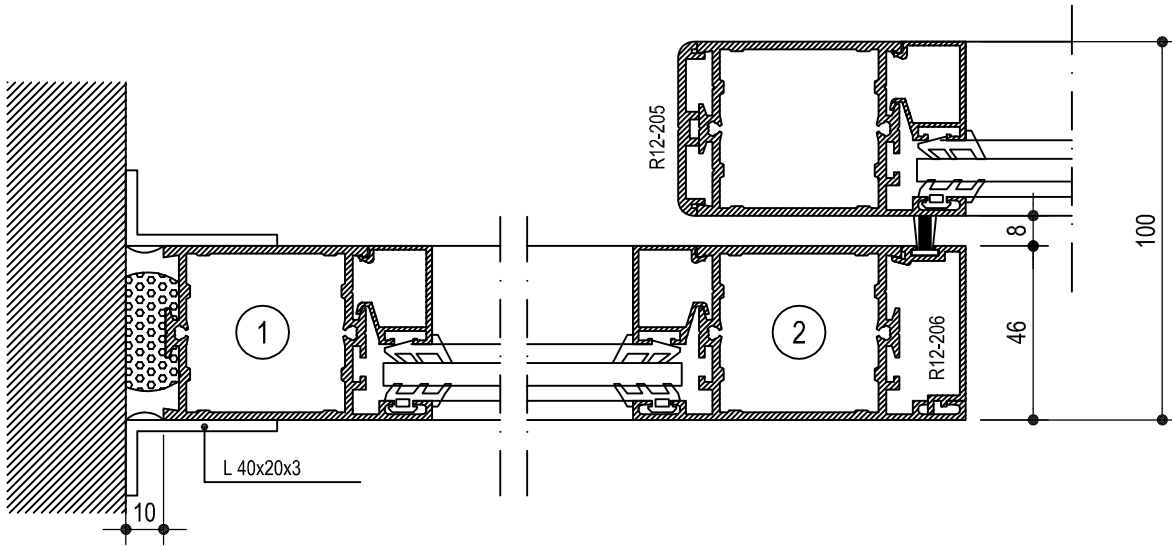
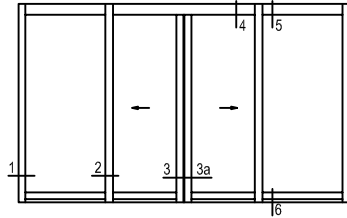
Door connection to R54-system 1:2

**NOKIAN**  
PROFILES

01.07.2014

**3**

**24**



01.07.2014

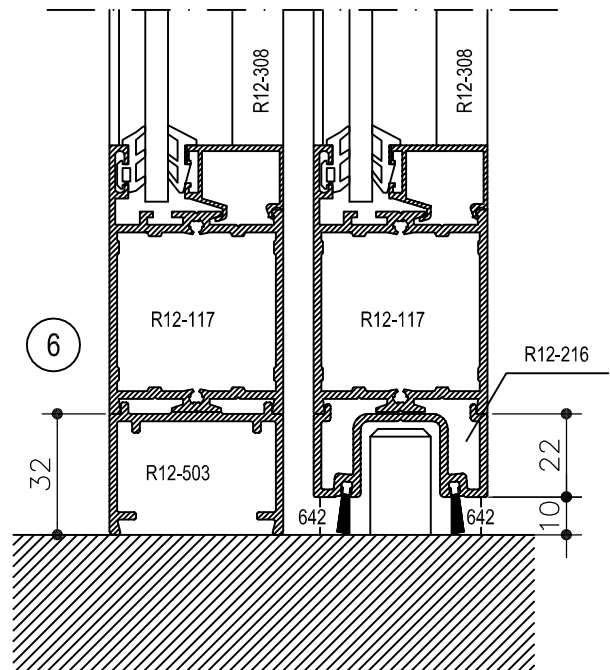
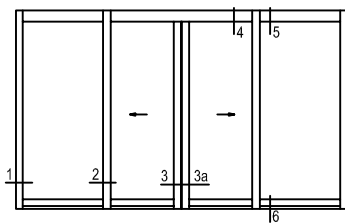
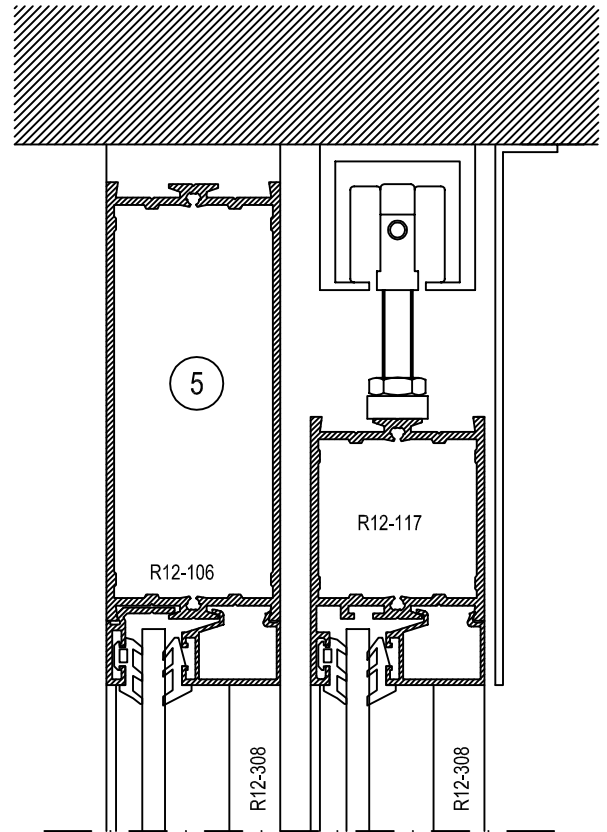
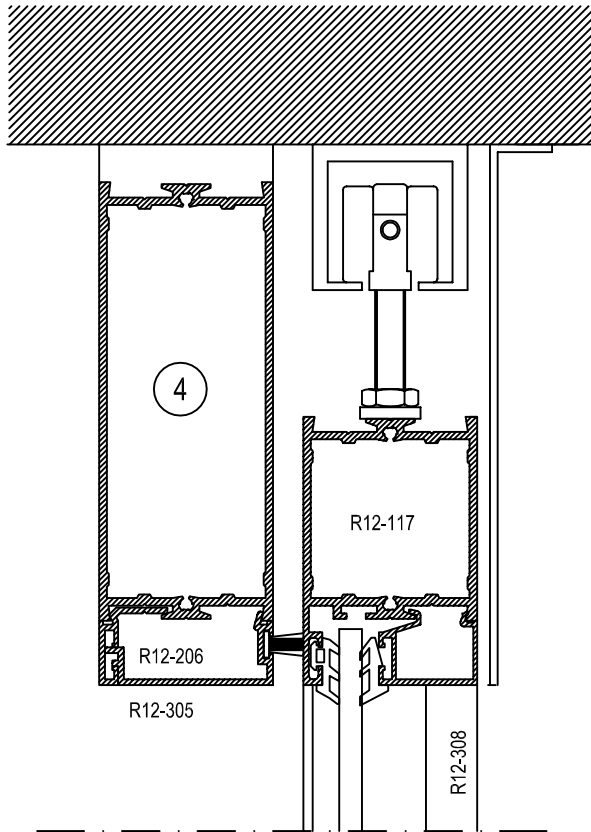
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**NOKIAN**  
PROFILES

**R12**

**25**

Sliding door 1:2



**R12**

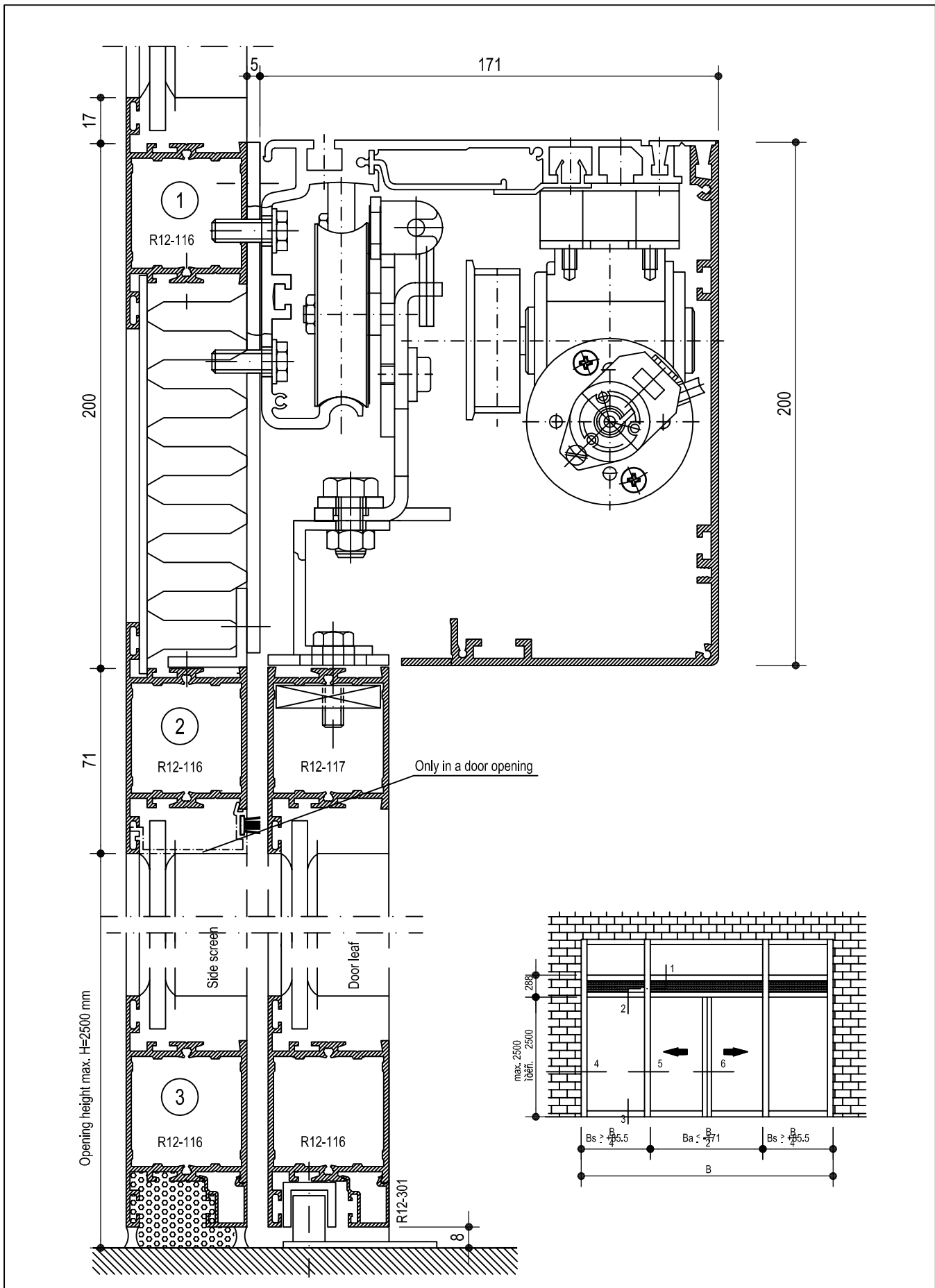
Sliding door 1:2

**NOKIAN**  
PROFILES

01.07.2014

**3**

**26**



01.07.2014

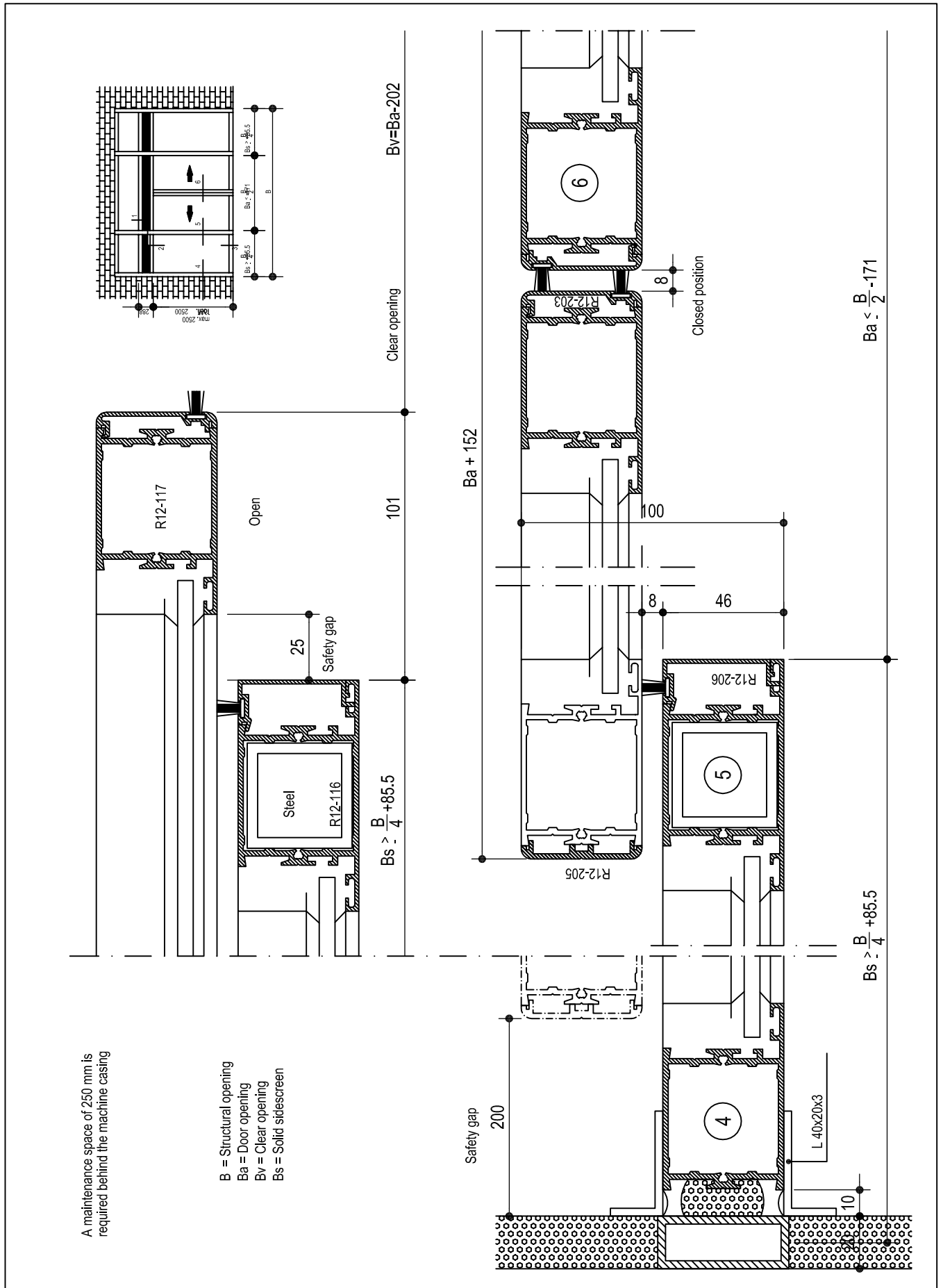
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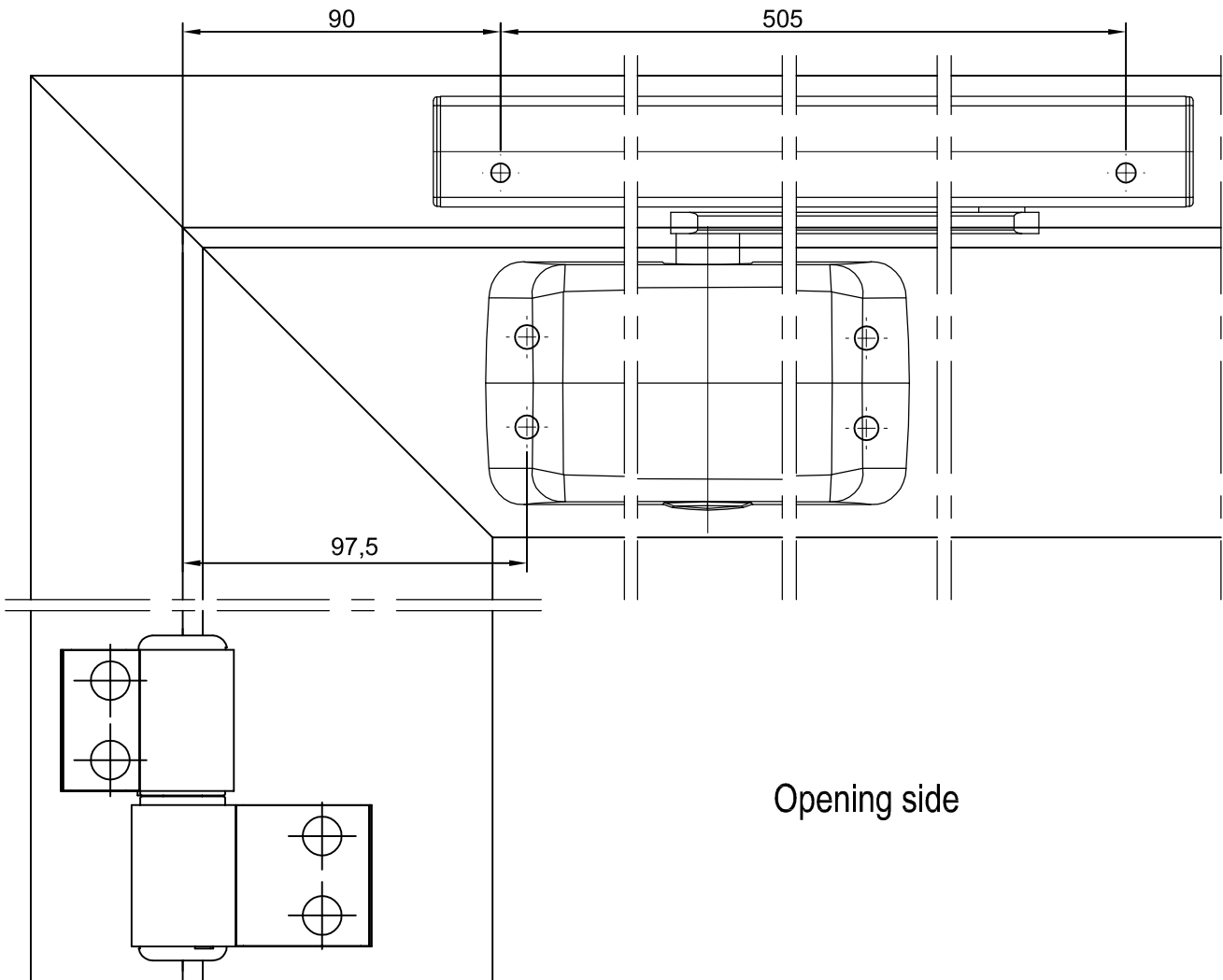
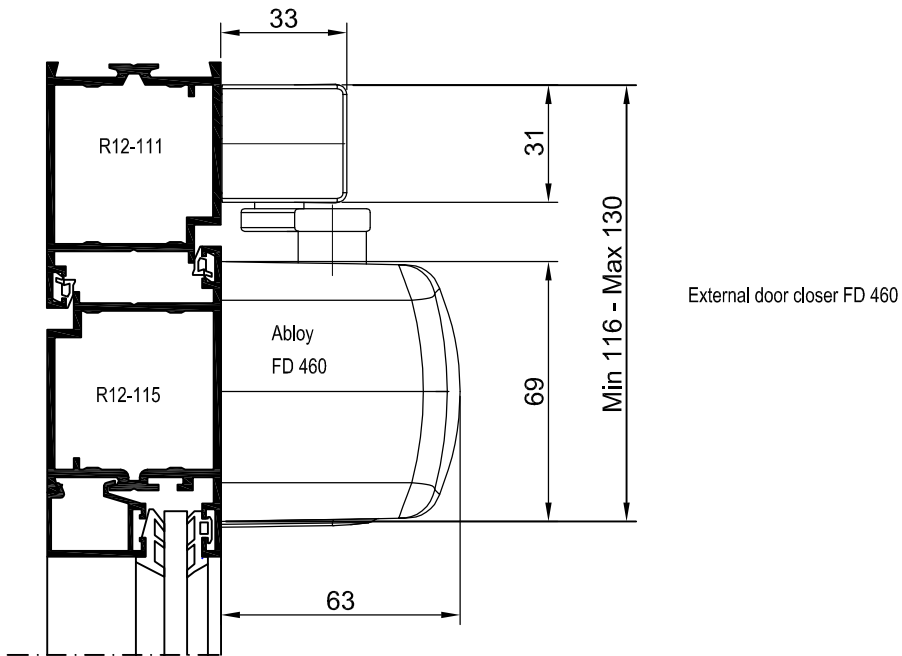
**NOKIAN**  
PROFILES

**27**

**R12**

Automatic sliding door Dorma ES 1:2

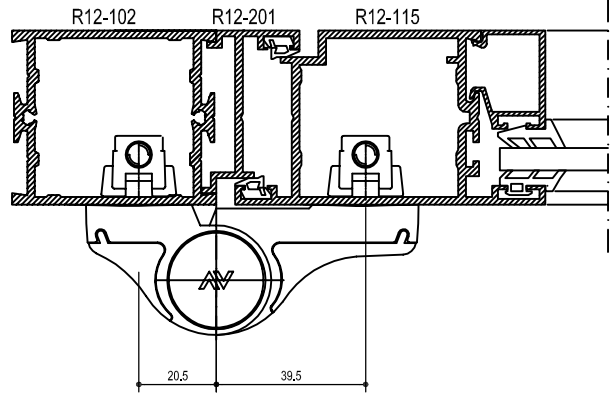
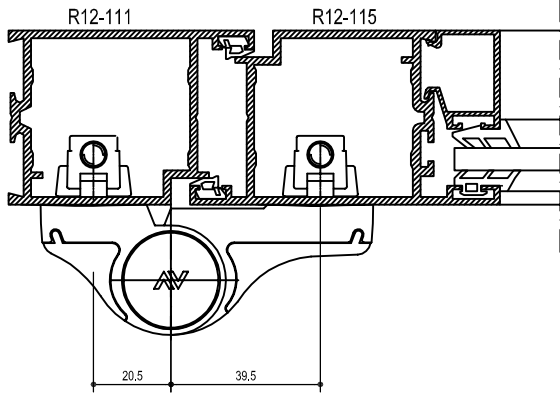




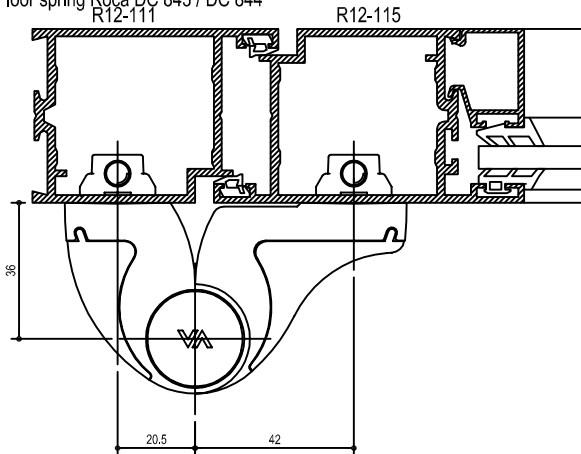
Note. Selection of closers, installation and adjustment according to manufacturers instructions.

01.07.2014

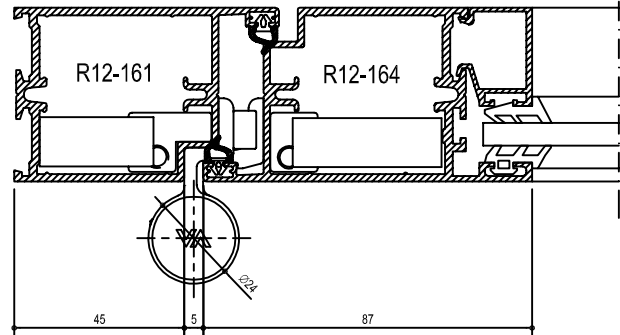
Door hinge  
R72-724



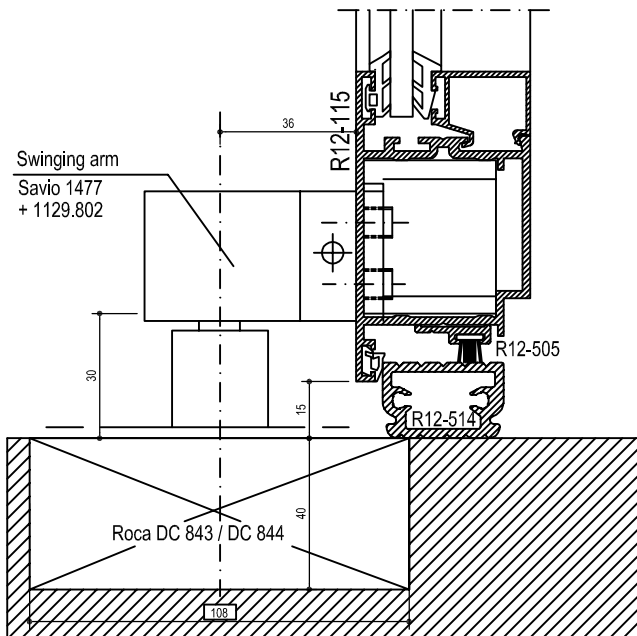
Floor spring Roca DC 843 / DC 844



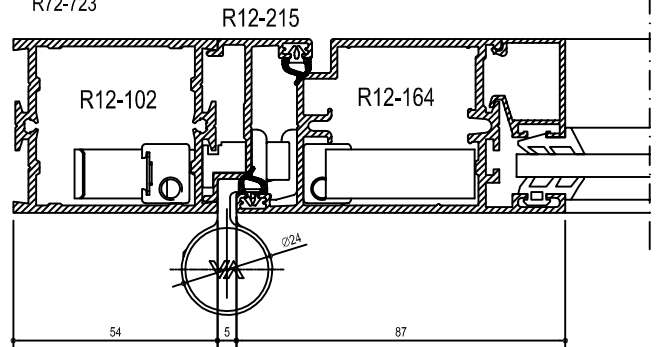
Door hinge  
R72-722



Upper hinge 1146.13 / 62.5 when  
Using floor spring



Door hinge  
R72-723



Note. Selection of closers, installation and adjustment according to manufacturers instructions.

**R12**

Door hinges and closers 1:2

**NOKIAN**  
PROFILES

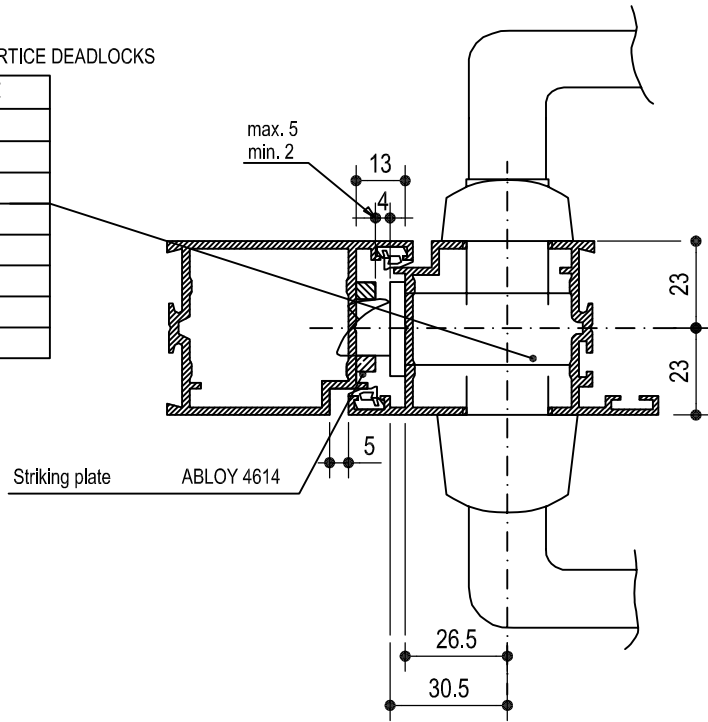
01.07.2014

**3**

**30**

AUTOMATIC MORTICE DEADLOCKS

PRODUCT CODE
LC300
LC301
LC302
LC303
LC305
LC130
LC131
LC132



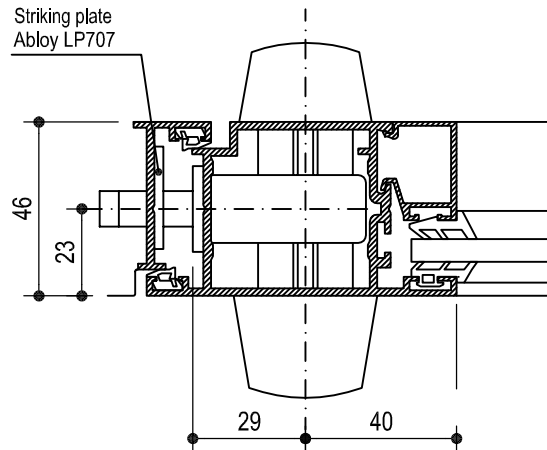
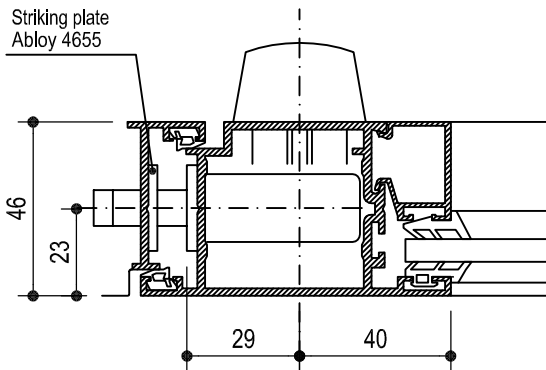
SECURITY LOCKS

LOCK CASE
LC306
LC307

MICRO SWITCH LOCKS

LOCK CASE
LC306X
LC307X

Machining and installation

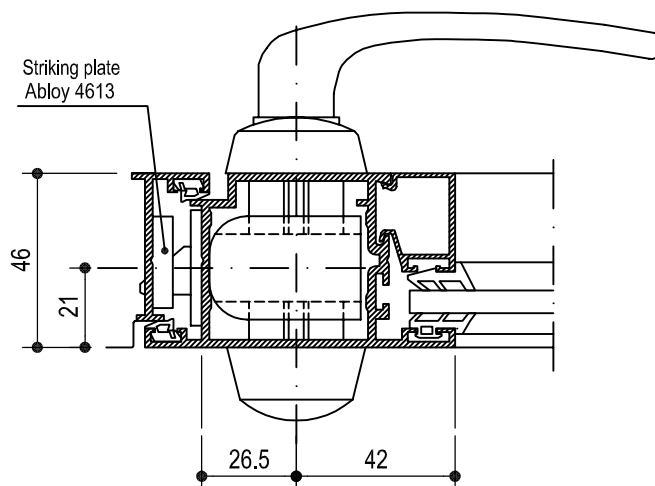


Note! We are not responsible for changes made by lock manufacturers.

01.07.2014

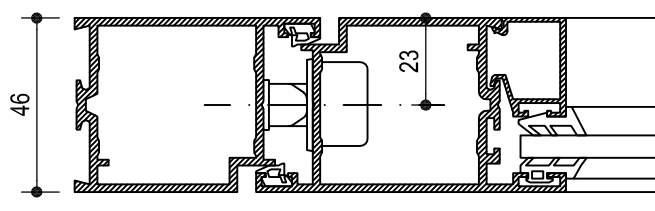


MOTOR LOCKS	
PRODUCT CODE	
8681	
8683	
8688	



LEAD COVER ABLOY 8810

INSTALLATION ACCORDING TO ABLOY INSTRUCTIONS



Note! We are not responsible for changes made

by lock manufacturers.

**R12**

Abloy locks 1:2

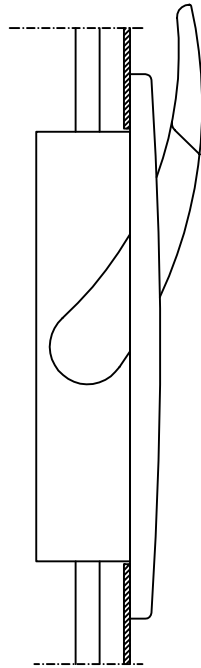
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PROFILES

01.07.2014

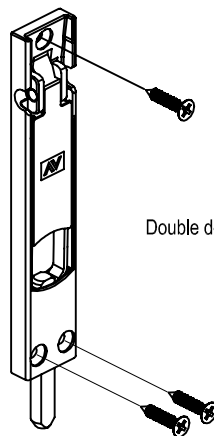
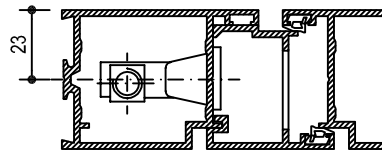
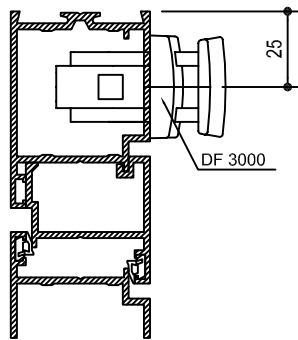
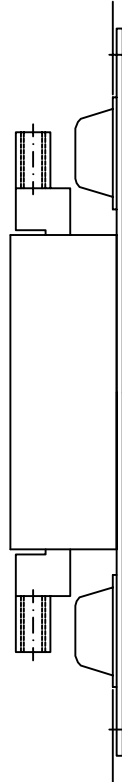
**3**

**32**

Door lever bolt DF 3000



Double door flush lever bolt R72-728



Double door flush lever bolt Savio surface mounted

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**3**

**NOKIAN**  
PROFILES

**33**

**R12**

Door lever and flush lever bolts

# GLAZING

**ENG**

Before commencing glazing, ensure that rebates glazing beads and glass are clean. Then fit the exterior glazing sealing no. 611, 619 or 630 into the profile groove. After installing the glass and glazing beads, glazing sealing gasket no. 612 is installed into place. Suitable lubricant can be used to facilitate the installation of this gasket.

When cutting sealing gaskets, a shrinkage allowance of 0.5% must be observed. On exterior structures, sealing gasket no. 611 and no. 619 are secured in the corners with a sealing compound. In conjunction with glazing sealing gasket no. 630 a rebate sealing compound must ALWAYS be used.

## GLASS INSTALLATION

The function of the pads is to support, centre and bear the vacuum-sealed window in the frame as designed, and to ensure that the window or door stays in the correct shape.

There are two types of pads:

- bearing pads, which transfer the weight of the pane to the frame.
- supporting pads, which prevent the pane from moving when in use.

The bearing pads must be made of a shape-retaining and durable plastic with a hardness of 70-90° Shore A, or another suitable material for the purpose. Pads made of another compatible material must be of an equal hardness.

A disjointable pad can not be used.

The temperature fluctuations that the R12 structures may be susceptible to may not effect the hardness of the pads.

The length of the bearing pads must be 100 mm, and the bearing width of the pad must not be less than the thickness of the glass pane.

The thickness of the bearing pads is 5 mm.

The length of the supporting pads can be 50-100 mm depending on the size of the pane, and the width the same as the bearing pads.

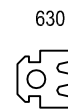
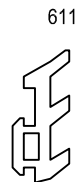
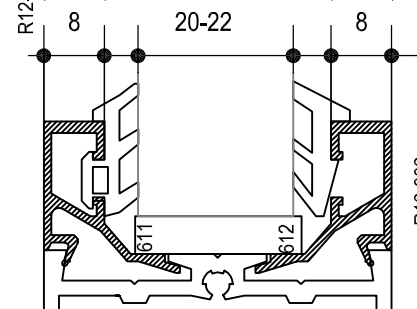
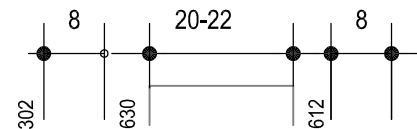
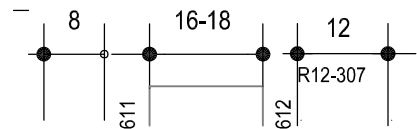
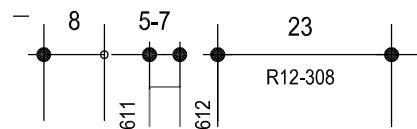
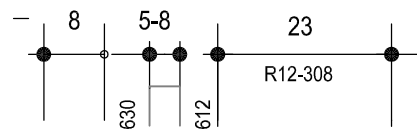
The pads are installed 50-100 mm from the corner of the pane.

The illustrations show the location of the pads in the most common types of doors and windows.

These glazing instructions are given only in principle and are valid only for vertical structures we therefore accept no responsibility for actual glazing work carried out that we are not personally supervising.

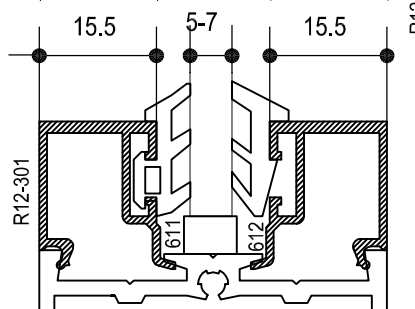
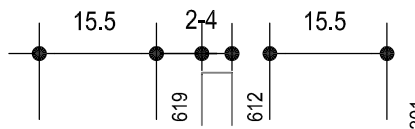
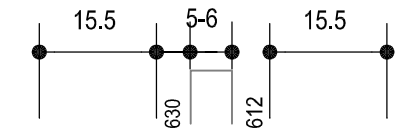
## Sealings

Choice of glazing beads in connection with sealings 611,630 + 612



When selecting sealing No. 630, ALWAYS use rebate sealing compound.

Choice of glazing beads in connection with sealings 611, 630 + 612

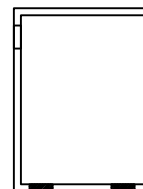


Placement of wedges:

■ Bearing wedge

□ Supporting wedge

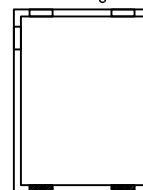
Fixed casement



Side hung



Bottom hung



**R12**

**NOKIAN**  
PROFILES

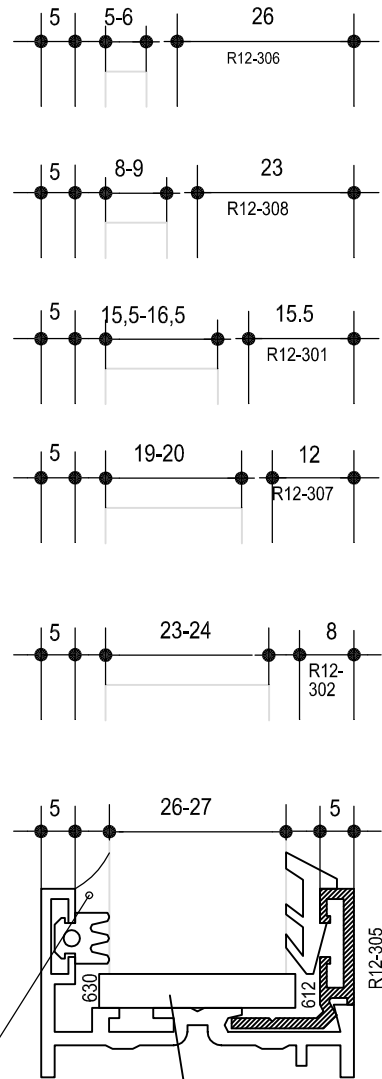
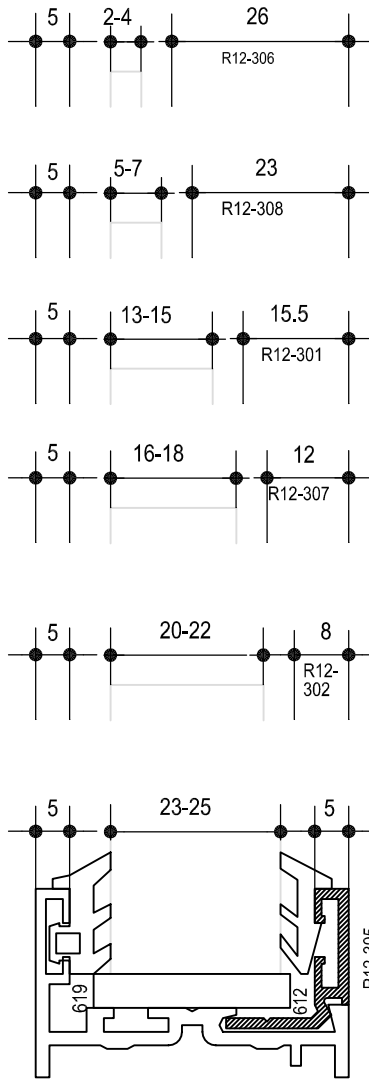
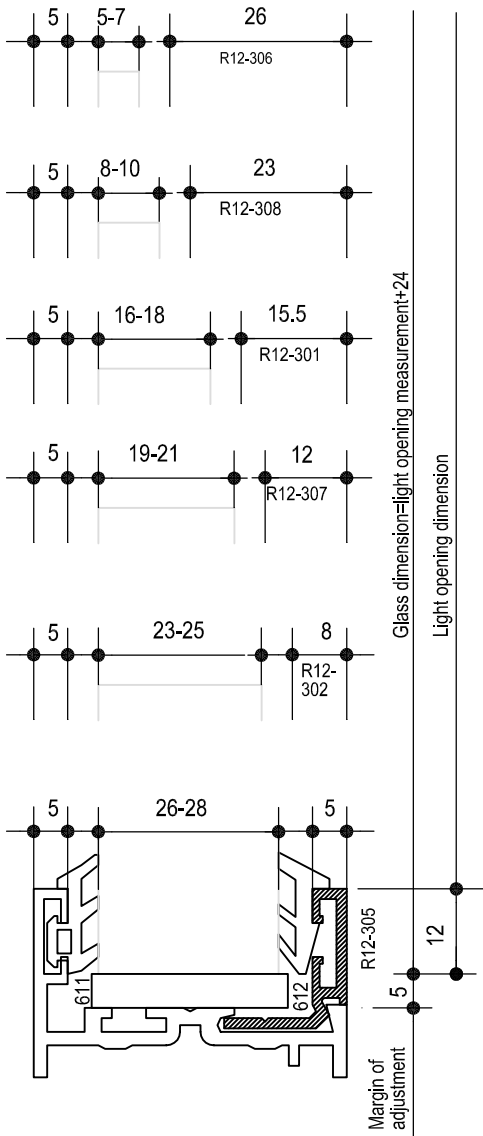
01.07.2014

**3**

Selection of glazing beads in connection with sealing gaskets 611 + 612

Selection of glazing beads in connection with sealing gaskets 619 + 612

Selection of glazing beads in connection with sealing gaskets 630 + 612



Vacuum glass pad 100x29x5  
Rolled glass pad 100x10x5

When selecting sealing No. 630, ALWAYS use rebate sealing compound.

01.07.2014

**3**

**NOKIAN  
PROFILES**

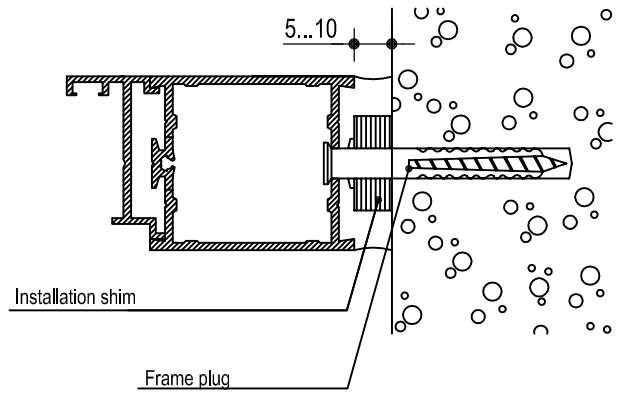
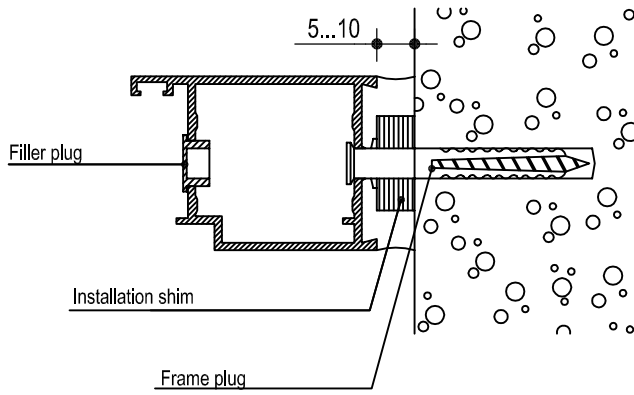


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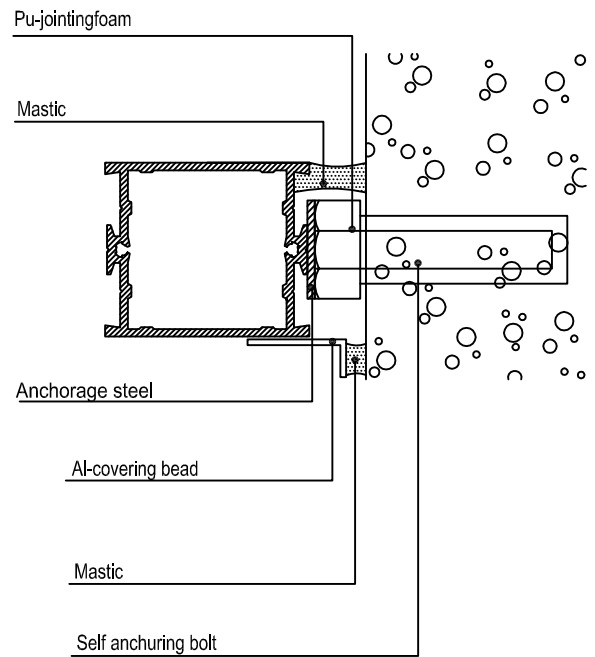
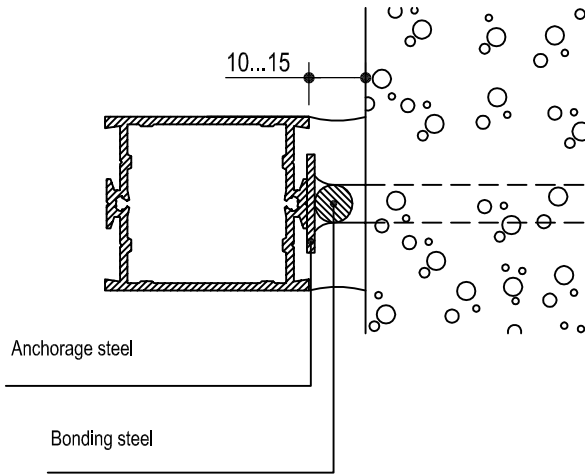
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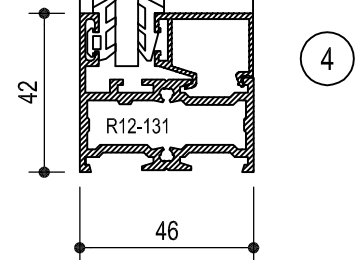
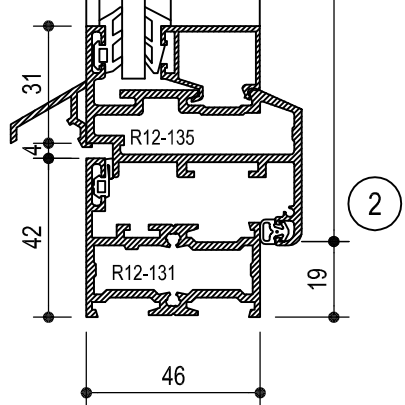
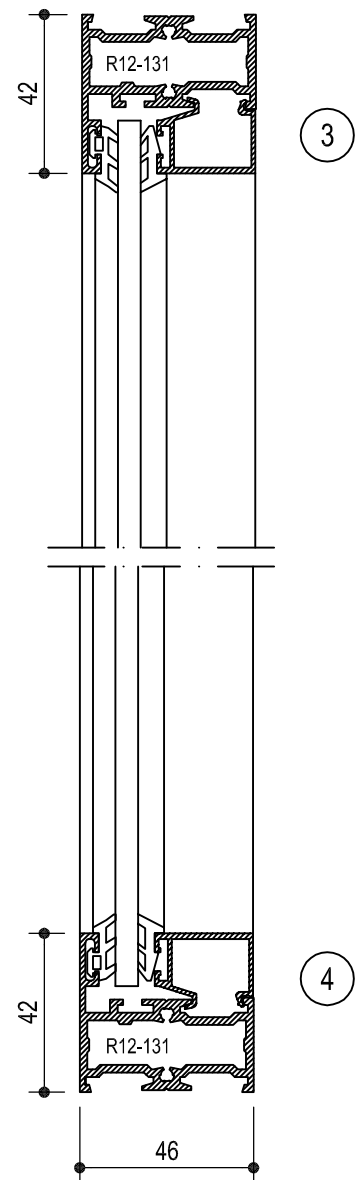
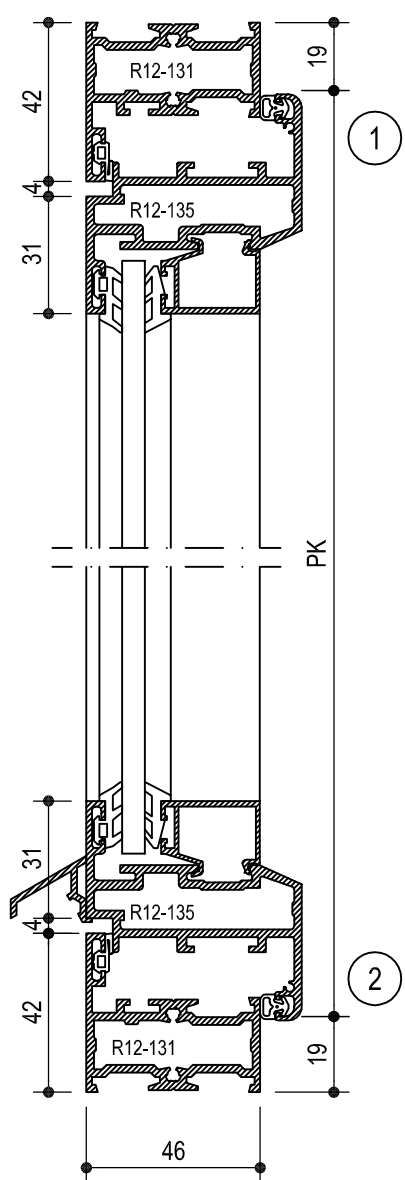
Selection of glazing beads and sealing gaskets 1:1

Frame plug anchorage



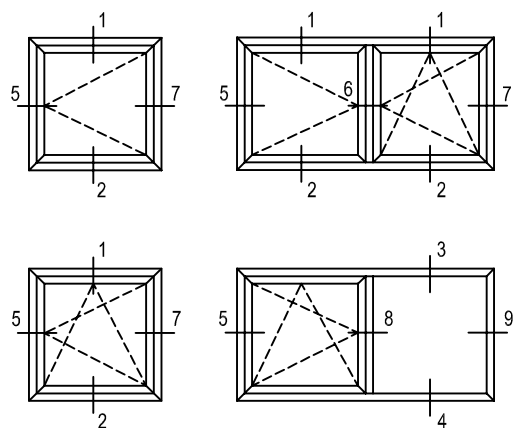
Welding anchorage





Connecting pieces:

- ⊗ R12-809 ( theor. measure 40,0 mm) for profiles R12-131,-113,-108
- ⊗ R12-808 ( theor. measure 43,5 mm) for profiles R12-135
- ⊥ R12-807



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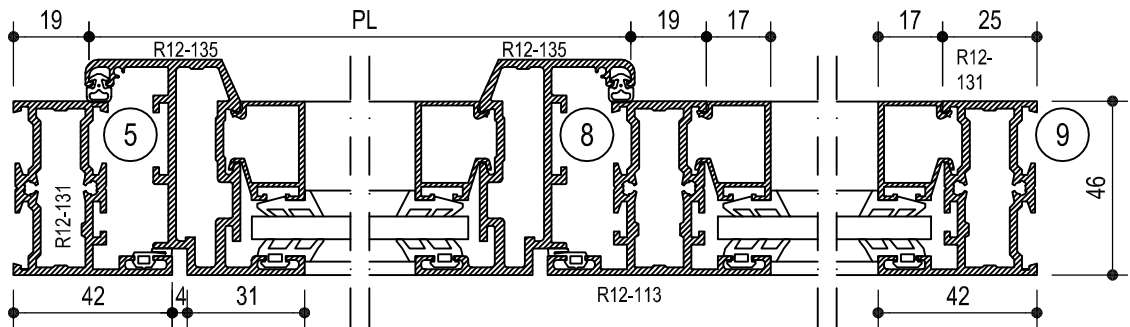
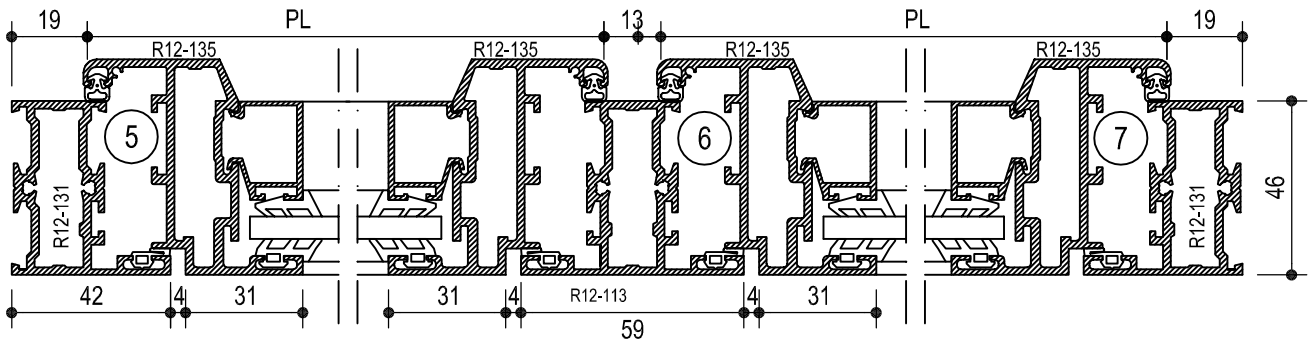
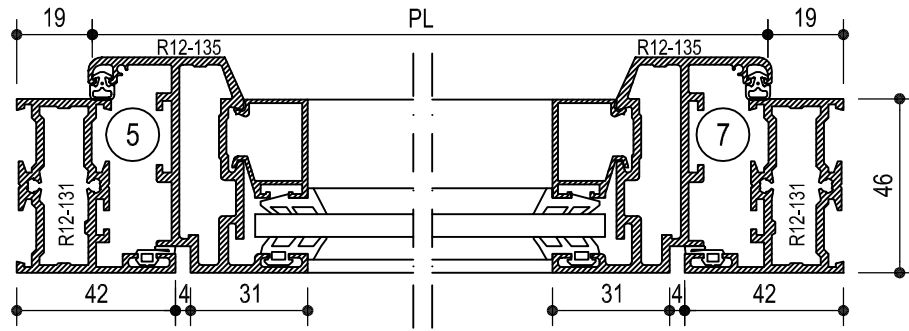
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**R12**

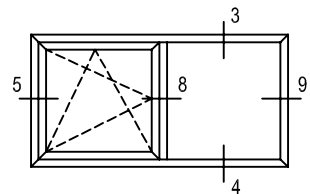
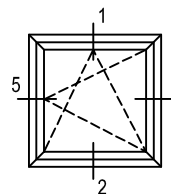
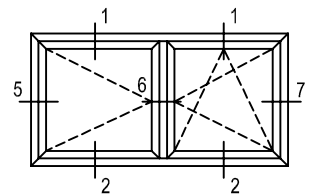
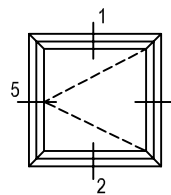
**37**

Window 1:2



PK = height of casement  
 PL = width of casement

Note.  
 Glazing according to R12 system  
 ironmongery according to Fapim system  
 maximum size of window width 1000 mm  
 height 1500 mm  
 max weight 100 kg



**R12**

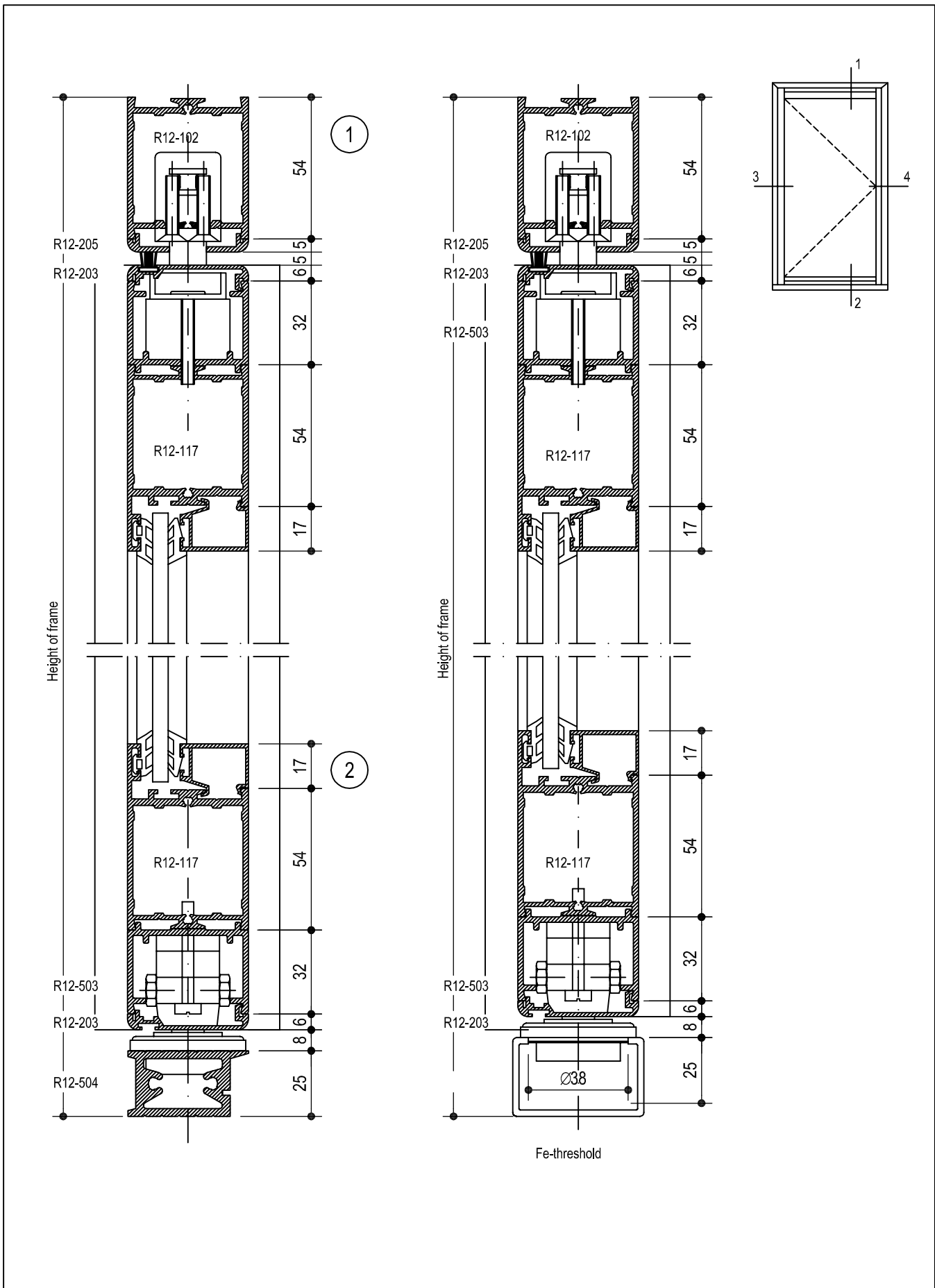
Window 1:2

**NOKIAN**  
 PROFILES

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**3**

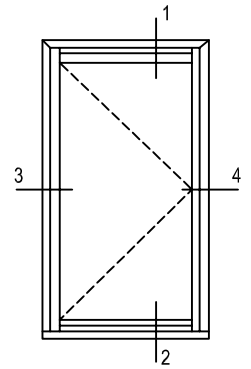
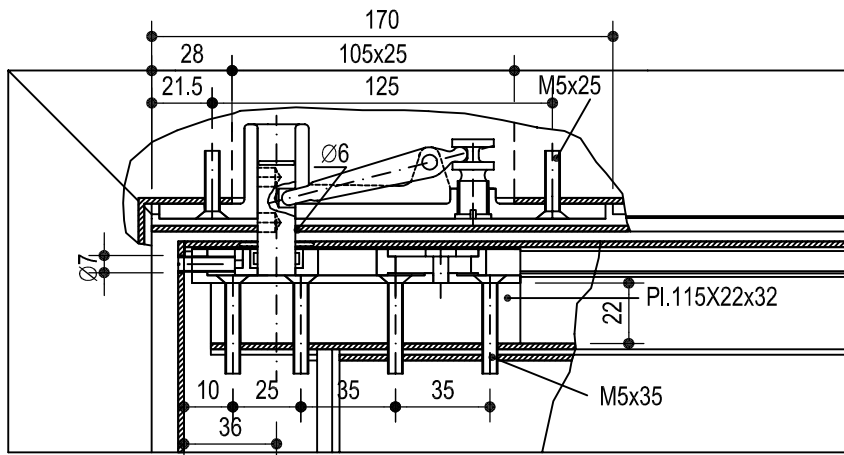
**NOKIAN**  
PROFILES

**39**

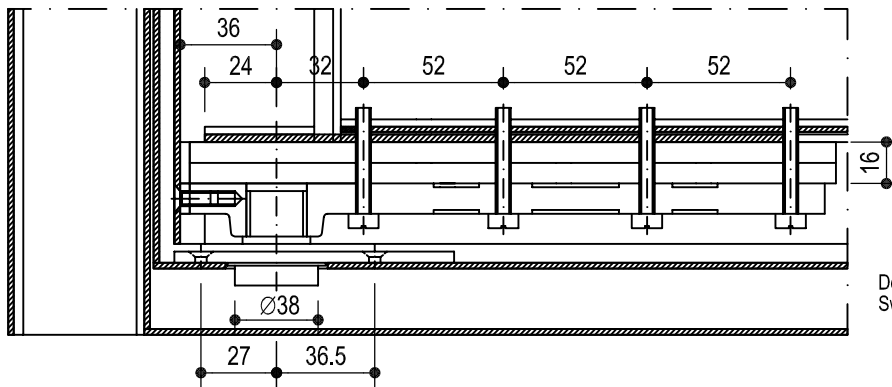
**R12**

Safety door 1:2



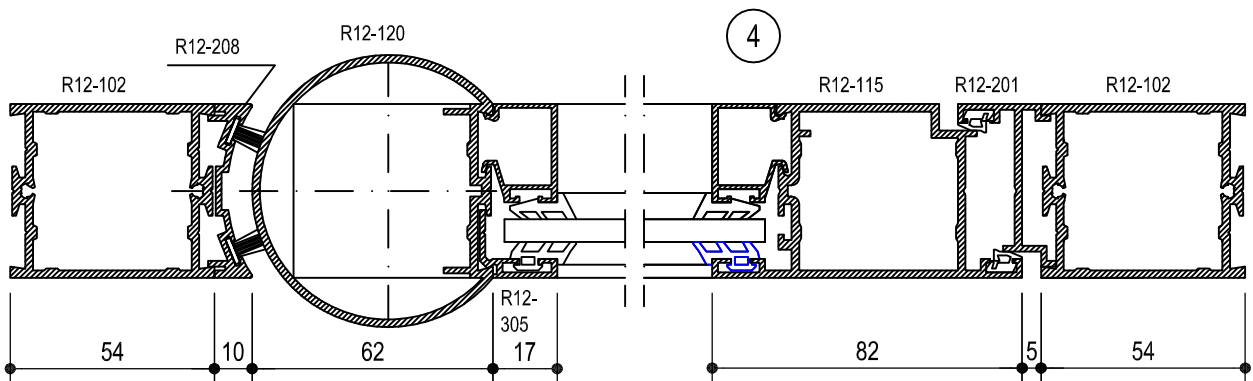
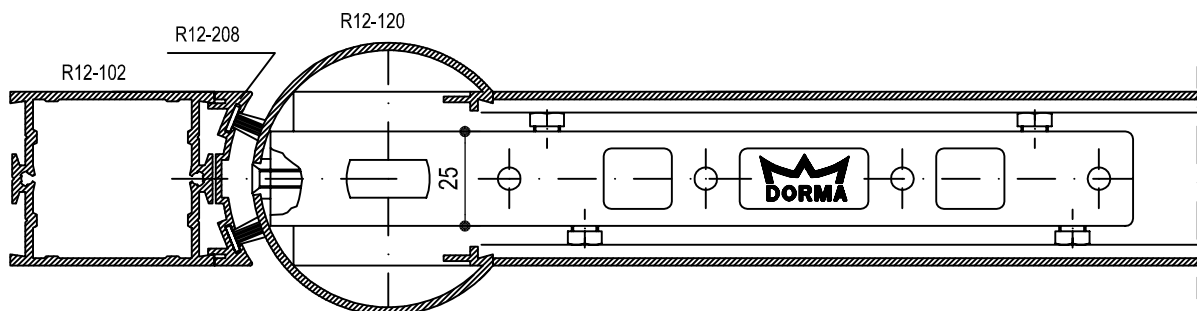


Dorma  
Adjustable top hinge 8062



Dorma  
Swivel arm 7422

Floor hinge 8560G



**R12**

Safety door 1:2

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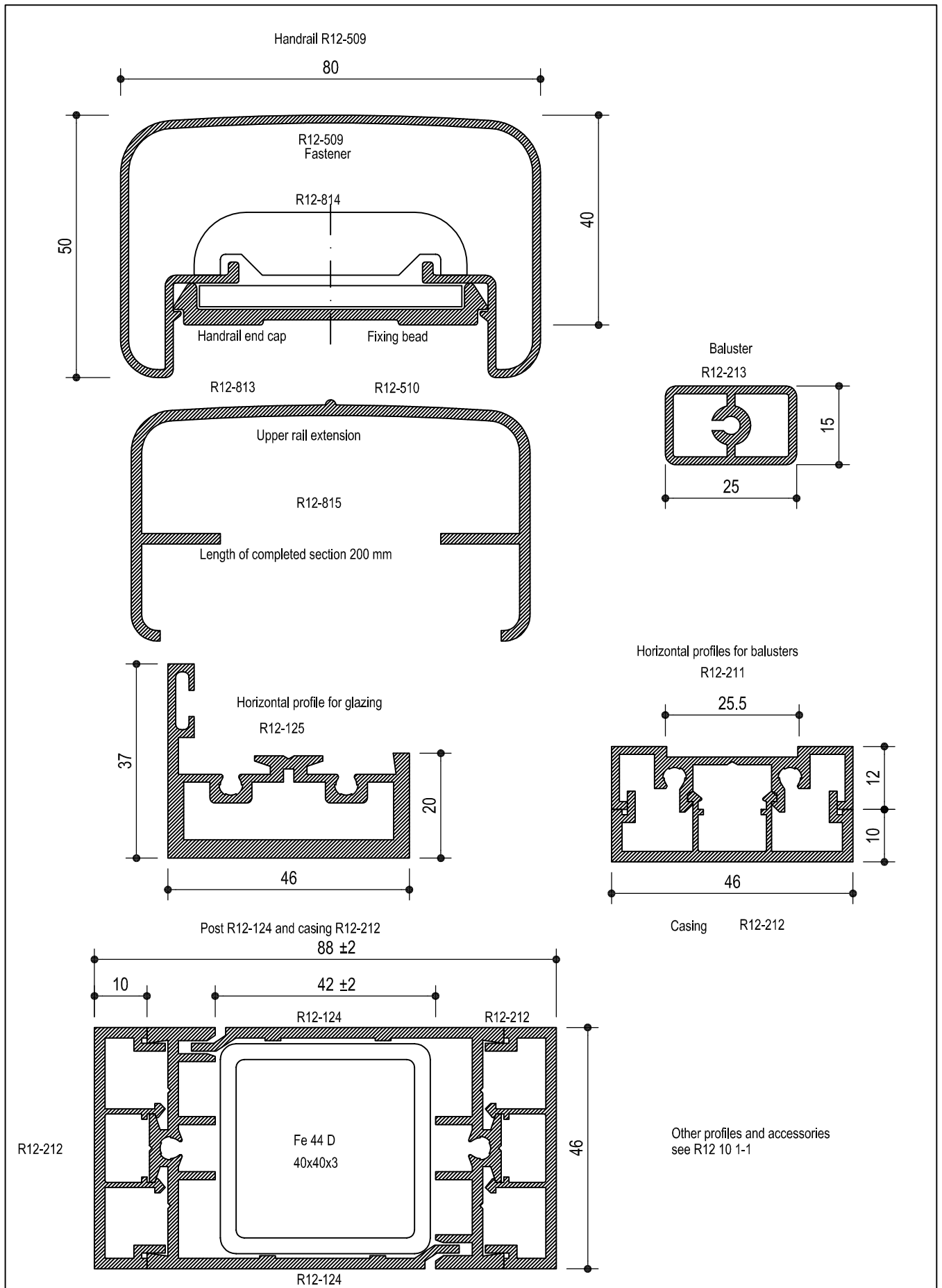
**40**

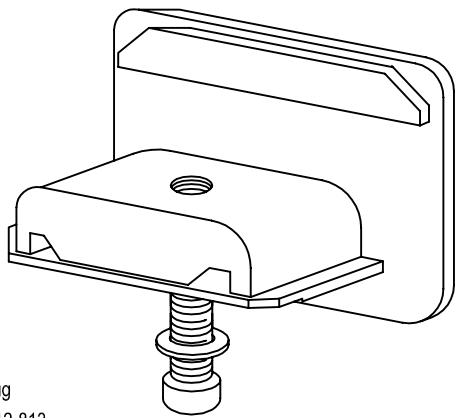
1. Type  
Thermally non-insulated, aluminium frame partition walls, entrances, and doors are manufactured of the building system in accordance to the R12 system.
2. Materials  
The aluminium profiles are of alloy EN AW 6060 T6
3. Surface treatment  
\* Anodization  
The surface treatment of the aluminium profiles is the light and weatherproof anodization.
 

NORDIC EN 000	<input type="checkbox"/>	NORDIC EK 32	<input type="checkbox"/>
NORDIC EK 22	<input type="checkbox"/>	NORDIC EK 34	<input type="checkbox"/>
NORDIC EK 24	<input type="checkbox"/>	NORDIC EK 36	<input type="checkbox"/>
NORDIC EK 26	<input type="checkbox"/>	NORDIC EK 40	<input type="checkbox"/>
NORDIC EK 29	<input type="checkbox"/>	NORDIC EK 42	<input type="checkbox"/>
NORDIC EK 30	<input type="checkbox"/>	NORDIC EK 44	<input type="checkbox"/>

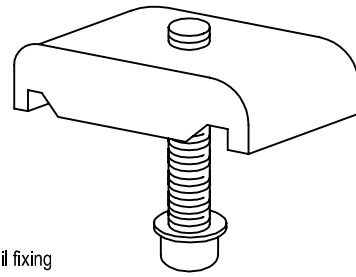
\* Painting:  
Polyester powder coating baked in a desired colour, chromated for primer treatment.  
Colour shade .....
4. Fittings  
The fittings of doors follow the door specification and instruction **10 30** - **10 33**  
Automatic doors according to **10 28**
5. Glazing  
The type of glazing is .....  
The glazing and the choice of accessories is based on the glazing instruction **10 35**
6. Sealings  
The glazing sealings are form strips of EPDM rubber. The sealings of door rebates are form strips of EPDM rubber, the bottom sealings are brush sealings, and the sealings in the partitioning doors are e.g. fiber frax ribbon.
7. Mounting  
The R12 structures are mounted using the joints, angle joints, screw slots, and sealings. The joining points are machined and mounted carefully and sealed. The clamp angles are secured with Araldit glue. The used screws and rivets in the outer walls are of aluminium or stainless steel or anti-corrosion treated.
8. Mounting into the building framework  
The structures are fixed into the building framework in such a manner that the loads on the structures are transferred in a reliable way on the structural frame and that neither the deformations nor the thermal movements of the building framework could harm the aluminium structures. The seam between the aluminium structure and building framework is sealed in a functional manner
9. Protection during the on-going building  
The visible surfaces of the aluminium structures should, if needed, be protected against foundering and rendering splashes and welding spatters as well as against mechanical damages during the work.
10. Functional requirements  
The structure must stand the loads in accordance to the regulations and transfer the loads on the building framework.

1. The system includes also instructions on glazing, mounting, draining, ventilation and insulation ao. details contributing to a good result.
2. The EN AW 6060 T6 is a strong ( $R_{p0,2}=150 \text{ N/mm}^2$ ) aluminium alloy that can be easily anodized and extruded into complex forms.
3. Nordic EK is a two-phase method creating a permanent colour. For colour shades see the models.  
The shades EN 000 (natural anodized) and EK 26 (dark brown) are available from stock.  
The profiles can also be baked with a polyester painting.  
  
Painting:  
For standard shades see painting charts.  
The painted profiles are always manufactured upon order.
4. Door fittings, see coloured brochure:  
Hinges page 30, for heavy-use doors 3-leaf and/or 3 pcs of 2-leaf hinges  
Closers page 29-30, entrance doors must be equipped with opening brakes  
lever bolt, side bolt, pullers page 33
5. The total thickness of the solid part is max. 32 mm when it is mounted using glazing beads.
6. It is possible to use also bottom ribbon 630 and rabbet putty instead of the glazing sealing.
8. In the sheet **10 36** are some examples of mounting.
9. Against rendering splashes a proper protection is e.g. plastic film or protective lacquer.
10. In the pages **10 11** and **10 20** there are design diagrams for choosing the correct structural size.  
If the loads differ from those in a normal case (wind load area A,  $h < 5 \text{ m}$ ) this must be taken into account in the designing.  
The applied designing principle for the external wall is: tension below the allowed tension according to the RIL 87 "Aluminium structure standards", deflection under  $l/200$ .

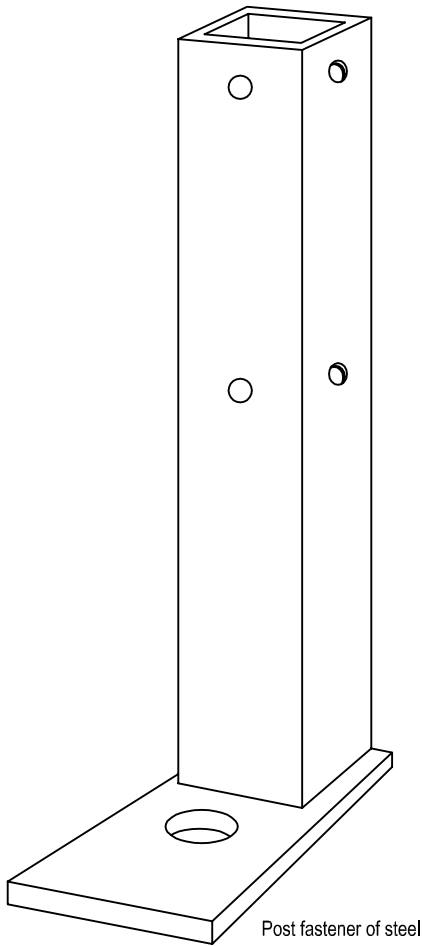




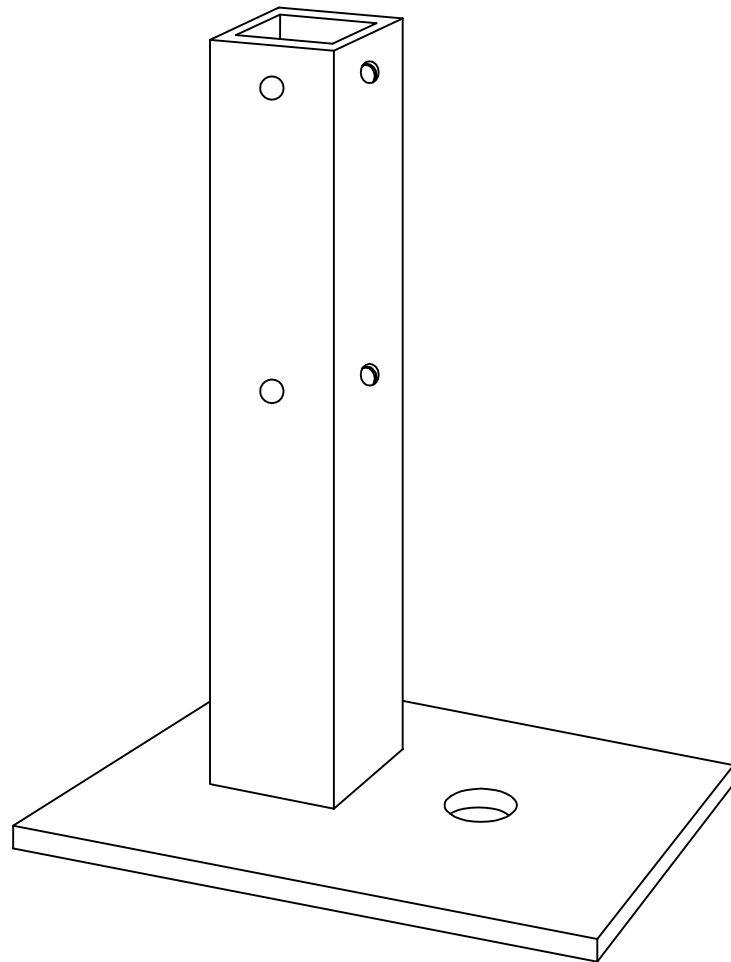
End plug  
R12-813



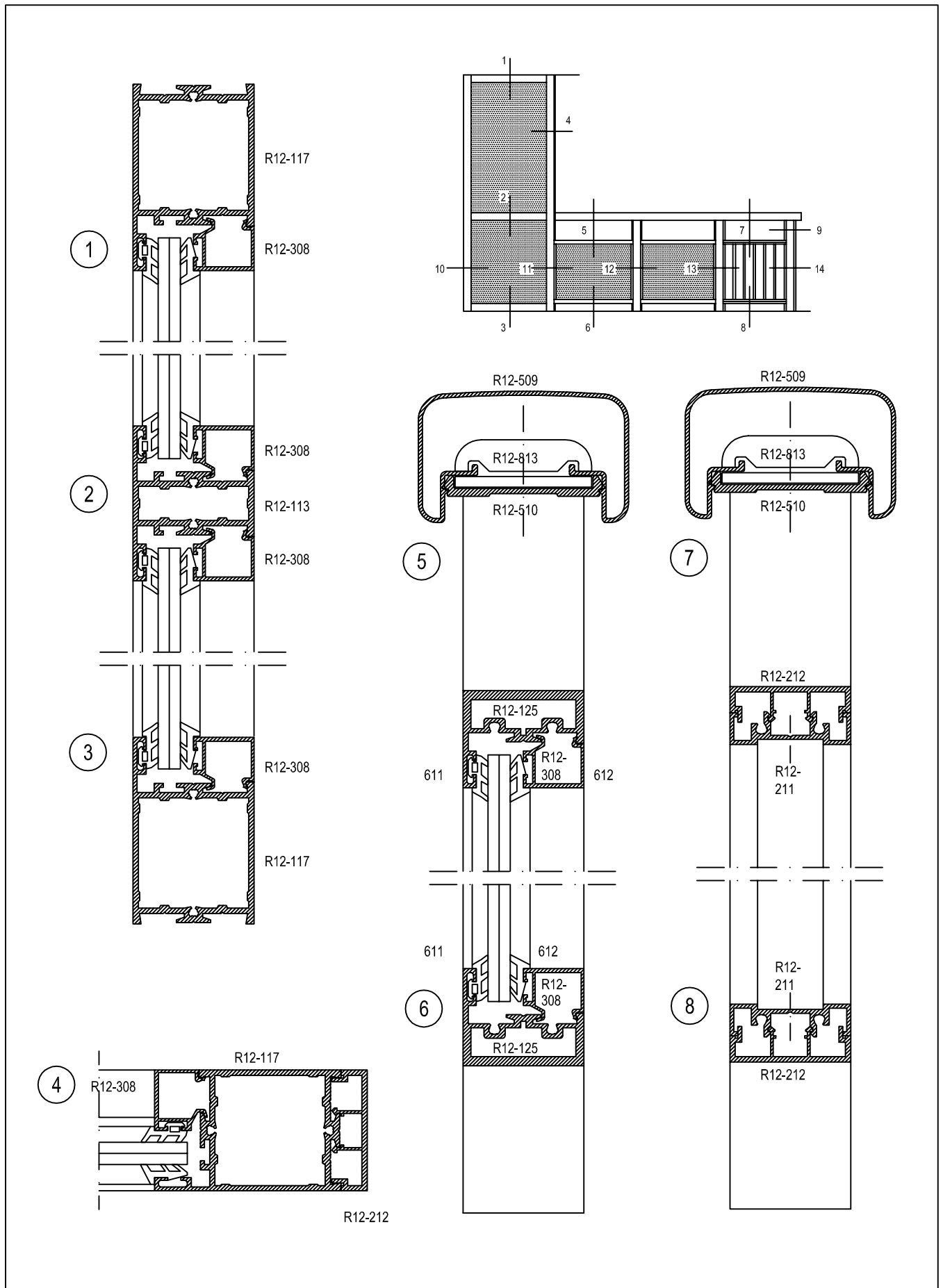
Upper rail fixing  
R12-814



Post fastener of steel

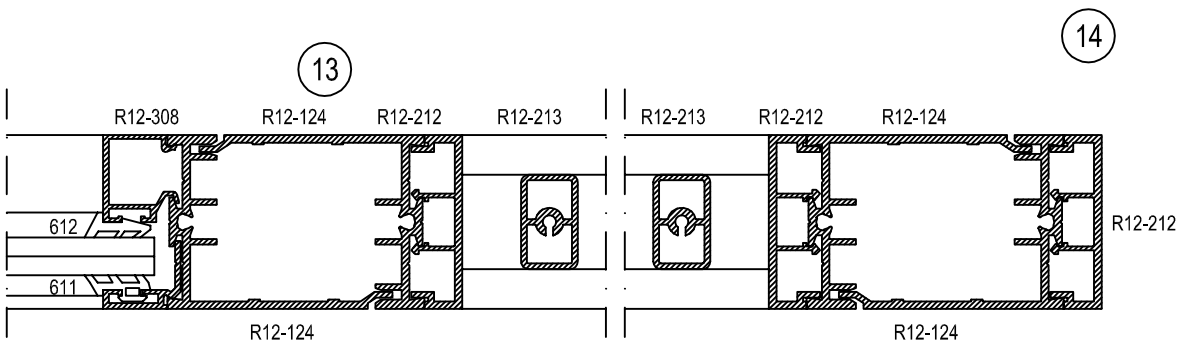
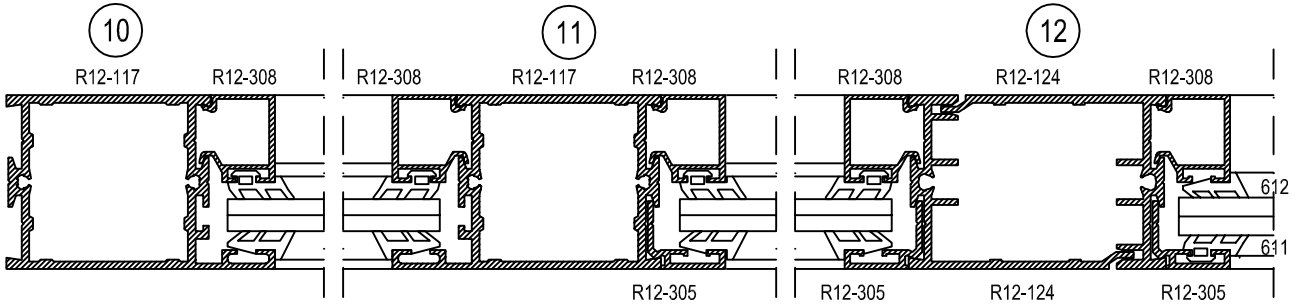
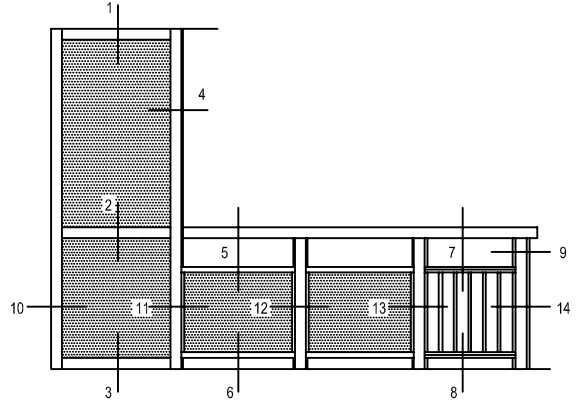
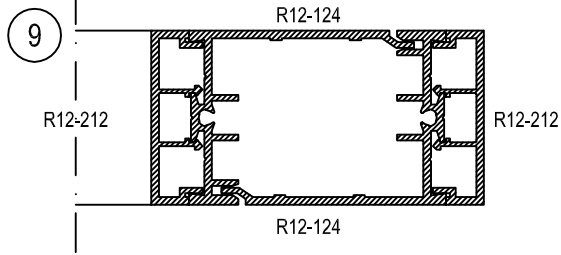


Corner post fastener of steel



# R12 BALUSTRADE

Balustrade and glazed windbreak



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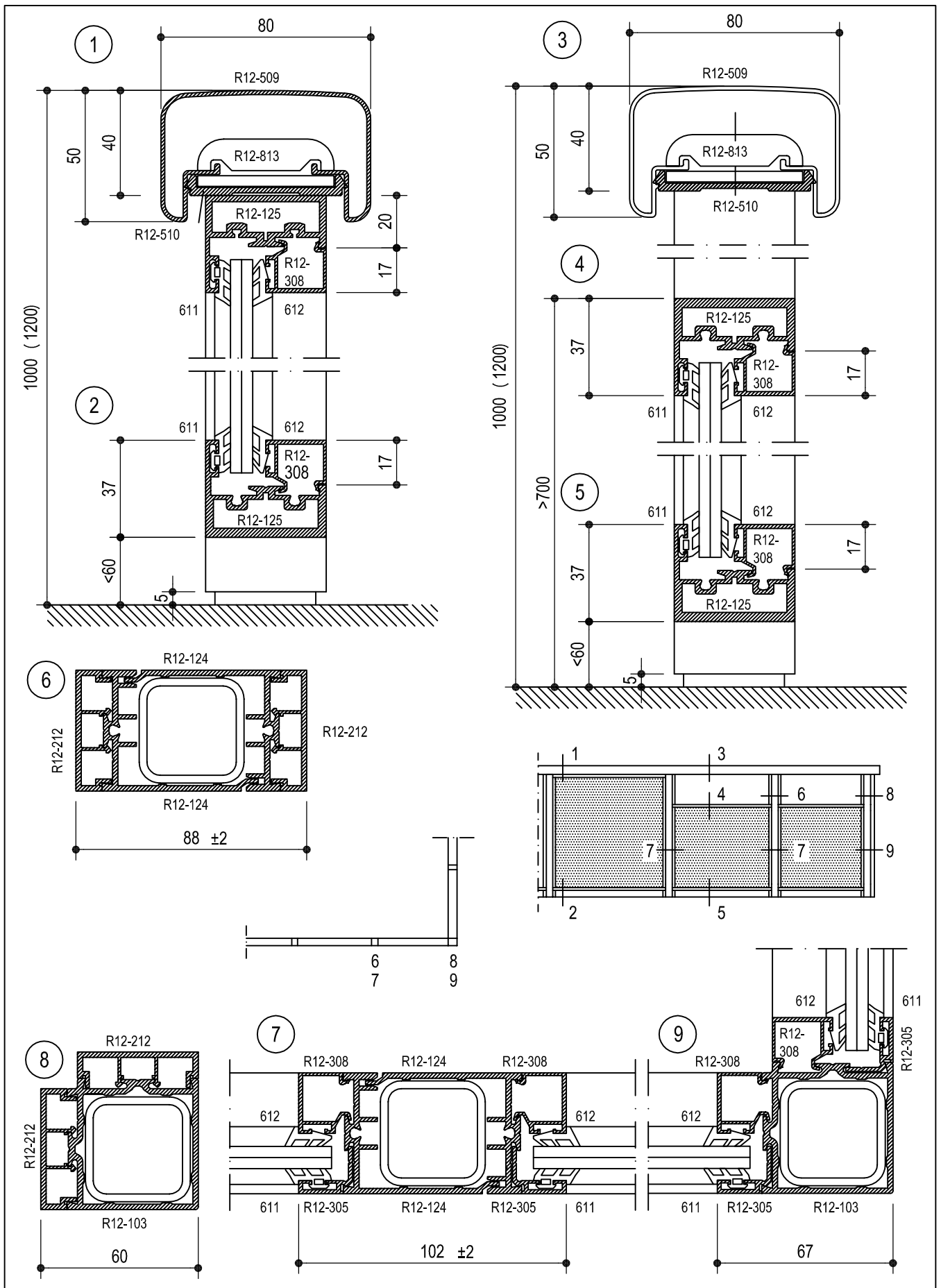
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**NOKIAN**  
PROFILES

**R12** BALUSTRADE

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Balustrade and glazed windbreak



**R12 BALUSTRADE**

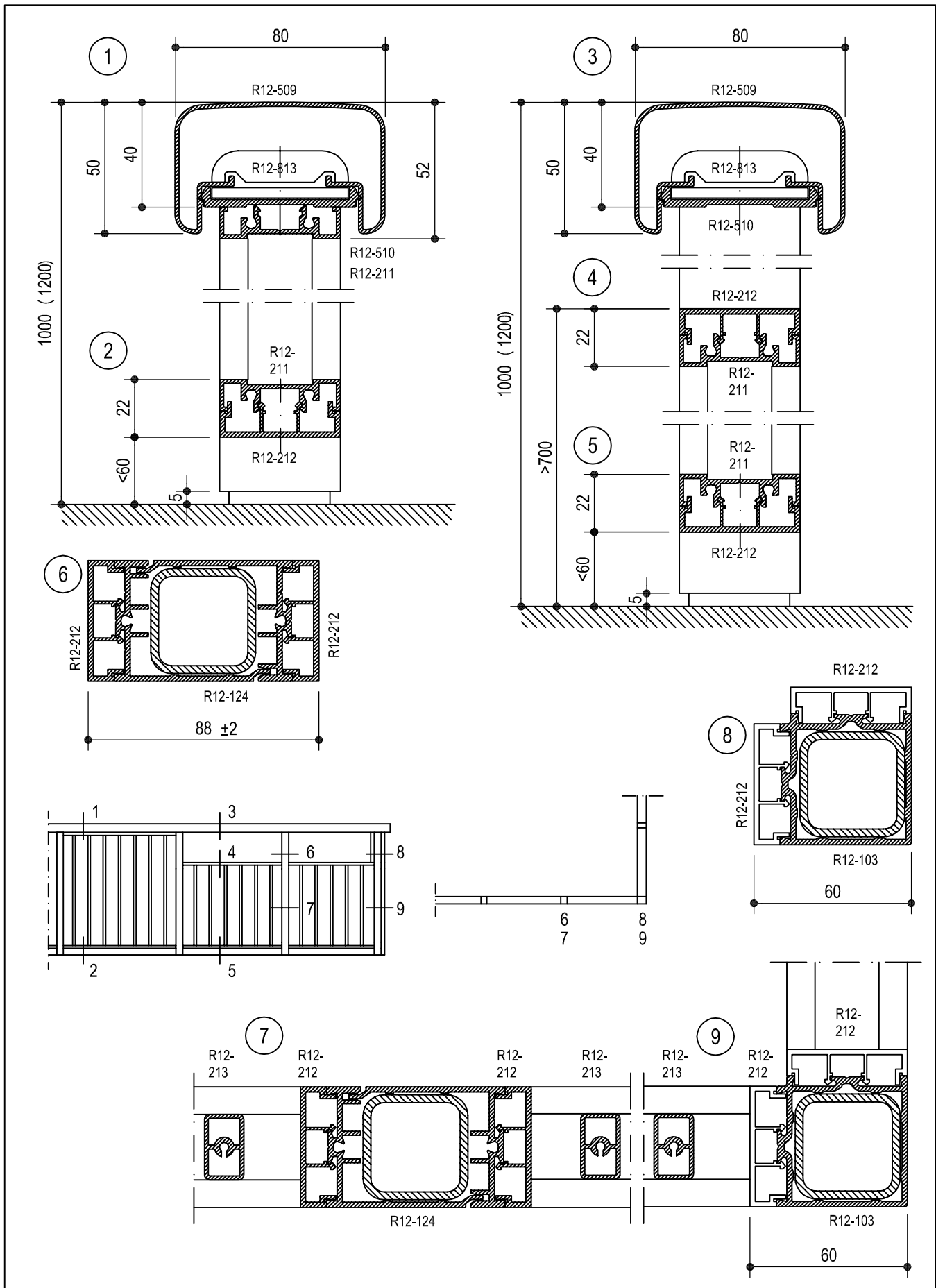
Glazed balustrade 1:2

**NOKIAN**  
PROFILES

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**R12** BALUSTRADE

Baluster type balustrade 1:2