Profile systems

ALUTECH ALT W72 CW
Window system with thermal break
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System description
Casement window chart

1 - AYPC W72.0101E frame profile
2 - AYPC W72.0240NE sash profile
3 - AYPC C48.0606 glass bead profile
4 - FRK29-01 rubber gasket
5 - FRK67 rubber gasket
6 - FRK198 rubber gasket
7 - FRK190 rubber gasket
8 - AYPC W72.0901 bearing support
9 - 100x44x3 leveling support
10 - 34mm glazing
Data for the order
## Technical Catalogue

### Article Name

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### Glass bead profile

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For sash profiles:
- AYPW72024-0E, AYPW72024-ONE
ALUTEC ALTW72 CW
Window system with thermal break

Bearing support installation diagram
Bearing support installation scheme

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Seam sealing processing for bearing support installation

See AYPC.W72.0911 seam sealing processing in corner zone on page 04.03.
Seam sealing processing in the zone of installation of AYPC.W62.0912 and AYPC.W62.0913 plastic corners
Processing of AYPC W72.0911 seam sealing for ventilation holes

BEARING SUPPORT INSTALLATION DIAGRAM
Gasket cutting list
and installation diagram
Cut the gasket with 1% of extra length.
Gasket junction should be glued with the adhesive for rubber gasket gluing.
Cutting and installation of gaskets

Should be sealed. Sealant data is provided on the request.
Cut the gasket with 1% of extra length. Gasket junction should be glued with the adhesive for rubber gasket gluing.
Cutting and installation of gaskets

Cut the gasket with 1% of extra length. Gasket junction should be glued with the adhesive for rubber gasket gluing.

AYPC W72 01XXE
AYPC W72 03XXE
AYPC W72 0240E
AYPC W72 0240NE

FRK198

FRK36 FRK65 FRK67
Table of glazing
### Note:
1. The base for infill unit installation is identical for all frame and sash system profiles.
2. Data, given in the table, is reference information only. The values are given for preliminary calculations.

In case of practical use of this data, it is necessary to check its validity on the basis of the following parameters:
- Accuracy of infill unit manufacturing (tolerances);
- Accuracy of gasket manufacturing (tolerances);
- Conditions of gasket installation and system assembly;
- Glass bead profile tolerances and combined profile assembly tolerances.

For correct functioning, the gasket must be force fitted.
### ALT W72CW Window Installation into Facade Using Transom Bar Profile as a Frame

**Infill Unit Thickness** | **Frame Profile** | **Gasket** | **Self-Tapping Screw** | **Distance Profile**
--- | --- | --- | --- | ---
A | B | C | D | E | F | G | H
22 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0902-01 | AYPC.F50.0901-01
24 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0902-01 | AYPC.F50.0901-01
26 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0902-01 | AYPC.F50.0901-01
28 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
30 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
32 mm | AYPC W72 039E  | AYPC W72 034 ONE | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
34 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
36 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
38 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
40 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
42 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01
44 mm | | FRK17 | FRK17 | 4.8x19-A2 DIN 7981 | 3.9x32-A2 DIN 7982 | AYPC.F50.0903-01 | AYPC.F50.0902-01

Data on FRK17 gasket AYPC.F50.0901-AYPC.F50.0903 distance profiles are given in ALT F50 technical catalogue.
Windows.
Sections and junctions
AYPC.W72.0301E + AYPC.W72.0240N

AYPC.W62.0953-05

AYPC.W62.0969

AYPC.W62.0951

AYPC.W62.0912 AYPC.W72.0901

100x44x3
AYPC W72.0302E + AYPC W72.0240E

WINDOWS. SECTIONS AND JUNCTIONS
Profile processing
One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.

AYPC.W62.0912
AYPC.W62.0957
AYPC.W72.0240E/AYPC.W72.0240NE
profile corner joint by clamping and using 5 x 10 pins

AYPC.W62.0953-05
AYPC.W62.0969
AYPC.W72.0240NE
One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.
One- or two-component adhesive for aluminum profiles must be applied before clamping corner installation.
AYPC W72.0340E/AYPC W72.0340NE profile corner joint by clamping and using 5 x 10 pins

One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.
One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.
One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.

AYPC.W72.0101E and AYPC.W72.0339E profiles corner joint by using 5 x 10 pins

AYPC.W72.0339E
AYPC.W62.0952-01
AYPC.W72.0101E
AYPC.W62.0952-01
AYPC.W72.0339E
AYPC.W72.0339E processing

5 х 10 DIN6325D pin
ALUTECH ALT W72 CW | Window system with thermal break

One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.
One- or two-component adhesive for aluminium profiles must be applied before clamping corner installation.

AYPC.W72.0102NE and AYPD.W72.0340NE profiles corner joint by using 5x10 pins.
In case of AYPW72.0101E installation, 3,9x13 DIN7981 self-tapping screw must be used instead of 3,9x16 DIN7981 self-tapping screw.

On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.
L-connection of frame and transom bar profiles

On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.

Frame profile machining scheme

AYPC.W72.0102NE
AYPC.W72.0340NE
AYPC.W72.0102NE
AYPC.W62.0913
AYPC.W62.0914
AYPC.W62.0915
AYPC.W62.0916-01
AYPC.W72.0102
AYPC.W72.0340

AYPC.W62.0916-01 foamed support must be aligned with the butt end of transom bar profile.
On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.
L-connection of frame and transom bar profiles

Transom bar fastening kit

Frame profile machining scheme

On the surface of junction silicone sealant must be applied. The sealant structure recommendations are given on the request.
Profile machining for ventilation and condensate removal
Profile machining for ventilation and condensate removal. Variant 1
Profile machining for ventilation and condensate removal. Variant 1
Profile machining for ventilation and condensate removal. Variant 2

AYPC.W72.0240NE
AYPC.W72.0101E
AYPC.W72.0240NE
AYPC.W72.0339E
AYPC.W72.0340E
AYPC.C48.0919M-01
AYPC.W72.0001
AYPC.W72.0002
AYPC.W72.0003
AYPC.W72.0039
AYPC.W72.0040
Profile machining for ventilation and condensate removal. Variant 2
Standard system calculation
Example of top hung and casement window calculation
Example of top hung and casement window calculation

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Glass bead profiles and rubber gaskets are chosen in accordance with infill unit thickness (see Section 06 – Glazing table).
Example of top hung and casement window calculation
Example of top hung and casement window calculation

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<th>Image</th>
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<tr>
<td>AYPC.W72.0911</td>
<td>Seam sealing</td>
<td><img src="image6.png" alt="Image" /></td>
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<tr>
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<td>Seam sealing</td>
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<tr>
<td>AYPC.W72.0911</td>
<td>Bearing support</td>
<td><img src="image8.png" alt="Image" /></td>
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<tr>
<td>AYPC.W72.0911</td>
<td>Bearing support</td>
<td><img src="image9.png" alt="Image" /></td>
<td>4</td>
<td>Variant 2</td>
</tr>
<tr>
<td>100x44x130</td>
<td>Leveling support</td>
<td><img src="image10.png" alt="Image" /></td>
<td>666l</td>
<td>Variant 1</td>
</tr>
<tr>
<td>100x44x130</td>
<td>Leveling support</td>
<td><img src="image11.png" alt="Image" /></td>
<td>4/4l</td>
<td>Variant 2</td>
</tr>
<tr>
<td>AYPC.C48.0999M-01</td>
<td>Drain plug</td>
<td><img src="image12.png" alt="Image" /></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AYPC.W62.0953-01</td>
<td>Clamping corner</td>
<td><img src="image13.png" alt="Image" /></td>
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</tr>
<tr>
<td>AYPC.W62.0953-02</td>
<td>Clamping corner</td>
<td><img src="image14.png" alt="Image" /></td>
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<tr>
<td>AYPC.W62.0953-05</td>
<td>Clamping corner</td>
<td><img src="image15.png" alt="Image" /></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AYPC.W62.0969</td>
<td>Clamping corner</td>
<td><img src="image16.png" alt="Image" /></td>
<td>4</td>
<td></td>
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<tr>
<td>AYPC.W62.0912</td>
<td>Plastic corner</td>
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<tr>
<td>AYPC.W62.0937</td>
<td>Leveling corner</td>
<td><img src="image18.png" alt="Image" /></td>
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</table>

Glass bead profiles and rubber gaskets are chosen in accordance with infill unit thickness (see Section 06 - Glazing table).

* Quantity of the removed AYPC.W72.0911 seam sealing depends on the type of window opening and number of bearing supports installed.
Example of combined window calculation

<table>
<thead>
<tr>
<th>34 mm infill unit</th>
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<tbody>
<tr>
<td>A142-38,3, B44-72</td>
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</tr>
<tr>
<td>A142-38,3, B44-72</td>
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</table>
Example of combined window calculation

<table>
<thead>
<tr>
<th>Article</th>
<th>Name</th>
<th>Profile</th>
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<th>Note</th>
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</thead>
<tbody>
<tr>
<td>AYPC W72.0101E</td>
<td>Frame profile</td>
<td>L3=L1-13,5</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
<td>L4=L2-13,5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AYPC W72.0240NE</td>
<td>Sash profile</td>
<td>L5=L1-30,5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>H=H-44</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AYPC W72.0399E</td>
<td>Transom bar profile</td>
<td>H</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AYPC C48.0606E</td>
<td>Glass bead profile</td>
<td>L6=L5-116</td>
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<tr>
<td></td>
<td></td>
<td>H2=H1-160</td>
<td>2</td>
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<td></td>
<td></td>
<td>L7=L2-40,5</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>H3=H-98</td>
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**Accessories**

<table>
<thead>
<tr>
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<th>1.</th>
<th>Note</th>
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<tr>
<td>FRK190</td>
<td>Rubber gasket</td>
<td>L5x2-H1x2</td>
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<td>FRK29-01</td>
<td>Rubber gasket</td>
<td>IA-Bx2+IA+x2</td>
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<td>FRK170</td>
<td>Rubber corner</td>
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<tr>
<td>FRK67</td>
<td>Rubber gasket</td>
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<td>AYPC W72.0901</td>
<td>Bearing support</td>
<td>10</td>
<td>Variant 1</td>
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<td>AYPC W72.0901</td>
<td>Bearing support</td>
<td>8</td>
<td>Variant 2</td>
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<tr>
<td>100x44x139</td>
<td>Leveling support</td>
<td>10101</td>
<td>Variant 1</td>
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<td>100x44x139</td>
<td>Leveling support</td>
<td>8181</td>
<td>Variant 2</td>
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<td>AYPC C48.0919M-01</td>
<td>Drain plug</td>
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<td>AYPC W62.0952-01</td>
<td>Clamping corner</td>
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<td></td>
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<tr>
<td>AYPC W62.0952-02</td>
<td>Clamping corner</td>
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</tr>
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<td>AYPC W62.0953-05</td>
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<td>AYPC W62.0951</td>
<td>Transom fixing element</td>
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<td>AYPC W62.0916</td>
<td>Foamed support</td>
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<td>AYPC W62.0913</td>
<td>Plastic corner</td>
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<tr>
<td>AYPC W62.0957</td>
<td>Leveling corner</td>
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<td></td>
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</tbody>
</table>

Glass bead profiles and rubber gaskets are chosen in accordance with infill unit thickness (see Section 06 - Glazing table).
Statics

ALUTECH ALT W72 CW
Window system
with thermal break
## Profile geometry data

### AYP.C.W72.0240E

<table>
<thead>
<tr>
<th>Profile</th>
<th>t, kg/m</th>
<th>S, mm²</th>
<th>Jx, sm⁴</th>
<th>Wx, sm³</th>
<th>ax, mm</th>
<th>Jy, sm⁴</th>
<th>Wy, sm³</th>
<th>ay, mm</th>
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</thead>
<tbody>
<tr>
<td>AYP.C.W72.0240E</td>
<td>167</td>
<td>699.8</td>
<td>30.6</td>
<td>10.2</td>
<td>30.1</td>
<td>14.2</td>
<td>3.5</td>
<td>40.3</td>
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<tr>
<td>AYP.C.W72.0339E</td>
<td>150</td>
<td>665.2</td>
<td>26.4</td>
<td>7.3</td>
<td>36.0</td>
<td>8.5</td>
<td>2.4</td>
<td>35.5</td>
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<tr>
<td>Profile</td>
<td>l, kg/m</td>
<td>S, mm²</td>
<td>Jx, sm⁴</td>
<td>Wx, sm³</td>
<td>ax, mm</td>
<td>Jy, sm⁴</td>
<td>Wy, sm³</td>
<td>ay, mm</td>
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<tr>
<td>-------------</td>
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<td>AYPC.W72.0340E</td>
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<td>736.0</td>
<td>304</td>
<td>8.5</td>
<td>36.0</td>
<td>13.7</td>
<td>3.4</td>
<td>40.0</td>
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</tbody>
</table>
Hardware
Exterior opening window hardware

1. Securistyle friction hinges for exterior opening windows Side hung and Top hung (Defender, Sterling, Storm)

2. Basket 20 mm (MACO) (D=20)

3. MACO shootbolt extensions

4. MACO shootbolt center locks

5. MACO striker plate

6. GESSE 01974 friction hinges support

7. Commercial pull in blocks Securistyle CPB1

8. Window handle offset
   art. H2-15 (R/L)
   art. EBC15 (R/L)
Example of exterior opening casement window hardware kit (Side hung)

Note:
The friction hinge for top hung window must be changed.
Sash profile machining for basket and handle installation

**Dormass - 20 mm**
Before handle installation cut the quadrant till the indicated length if necessary

**Machining dimensions may vary depending on the type and on the hardware manufacturer.**

**Basket B-20**

**Handle**

**M5x20 DIN965**

**4.2x25-A2 DIN7982**

**HArdWARE**
Shootbolt extensions installation on the sash

Machining dimensions could differ depending on the type and on the hardware manufacturer.
Striker plates installation on the window unit

AYPC.W72.0102E

AYPC.W72.0340E

AYPC.W72.0340E

AYPC.W72.0102E
Commercial pull in blocks installation on the frame and on the sash

Commercial pull in blocks allocation scheme

Frame and sash profile machining for 4,8x16-A2 DIN7981

Commercial pull
Securistyle (PB1)

4,8x16-A2 DIN7981

AYPC.W72.0102E AYPC.W72.0240E

Commercial pull
Striker plate
Frame profile machining for SecuriStyle SPSH16 friction hinges installation

Machining dimensions could differ depending on the type and on the hardware manufacturer.
Sash profile machining for Securistyle SPSH16 friction hinges installation

Window friction hinges installation

Machining dimensions could differ depending on the type and on the hardware manufacturer.
Hardware for exterior opening window

### Hardware

<table>
<thead>
<tr>
<th>Hardware Description</th>
<th>Art No.</th>
<th>Qty.</th>
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<tbody>
<tr>
<td>Basket 20 mm (MACO)</td>
<td>11048</td>
<td>1 pcs.</td>
</tr>
<tr>
<td>Shootbolt center locks (MACO)</td>
<td>379191</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Shootbolt striker plate (MACO)</td>
<td>379194</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Friction hinges support (Giesse)</td>
<td>01974</td>
<td>1 pcs.</td>
</tr>
<tr>
<td>Window handle offset</td>
<td>H2-15 (R/L)</td>
<td>1 pcs.</td>
</tr>
<tr>
<td>Shootbolt extensions (MACO)</td>
<td>220036</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Shootbolt extensions (MACO)</td>
<td>220037</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Mushroom blanking plate (MACO)</td>
<td>371913</td>
<td>5 pcs.</td>
</tr>
<tr>
<td>Shootbolt striker plate (MACO)</td>
<td>371914</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Commercial pull in blocks (Securistyle)</td>
<td>CPB1</td>
<td>3 pcs.</td>
</tr>
<tr>
<td>Extension 250 mm (MACO)</td>
<td>101530</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Commercial pull in blocks (Securistyle)</td>
<td>CPB1</td>
<td>5 pcs.</td>
</tr>
<tr>
<td>Extension 600 mm (MACO)</td>
<td>102859</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Extension 250 mm (MACO)</td>
<td>101530</td>
<td>2 pcs.</td>
</tr>
<tr>
<td>Extension 500 mm (MACO)</td>
<td>101795</td>
<td>2 pcs.</td>
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<tr>
<td>Extension 700 mm (MACO)</td>
<td>101943</td>
<td>2 pcs.</td>
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<tr>
<td>Extension 1200 mm (MACO)</td>
<td>102859</td>
<td>2 pcs.</td>
</tr>
</tbody>
</table>

**Exterior opening window hardware installation scheme (Side & Top Hung)**

Kit A (Side Hung H<1100 / Top Hung H>1100)

- pos.1 - Basket 20 mm (MACO) - art.11048 - 1 pcs.
- pos.6 - Mushroom blanking plate (MACO) - art. 379193 - 3 pcs.
- pos.7 - Shootbolt striker plate (MACO) - art. 379194 - 2 pcs.
- pos.9 - Friction hinges support (Giesse) - art.01974 - 1 pcs.
- pos.10 - Window handle offset - art. H2-15 R/L - 1 pcs.
- pos.4 - Shootbolt extensions (MACO) (by matching):
  - art. 58168 - size 1 (1100-1300) - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 2 pcs.
- pos.3 - Extension 250 mm (MACO) - art.101530 - 2 pcs.
- pos.5 - Shootbolt center locks (MACO) (by matching):
  - art. 58168 - size 0 (320-400) - 2 pcs.
  - art. 58169 - size 3 (1101-1400) - 2 pcs.
- pos.6 - Mushroom blanking plate (MACO) - art. 371913 - 3 pcs.
- pos.7 - Shootbolt striker plate (MACO) - art. 371914 - 2 pcs.
- pos.9 - Friction hinges support (Giesse) - art.01974 - 1 pcs.
- pos.10 - Window handle offset - art. H2-15 R/L - 1 pcs.
- pos.4 - Shootbolt extensions (MACO) (by matching):
  - art. 58168 - size 2 (401-800) - 2 pcs.
  - art. 58169 - size 3 (1101-1400) - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 5 pcs.
- pos.3 - Extension 250 mm (MACO) - art.101530 - 2 pcs.
- pos.5 - Shootbolt center locks (MACO) (by matching):
  - art. 58168 - size 1 (320-400) - 2 pcs.
  - art. 58169 - size 3 (1101-1400) - 2 pcs.
- pos.8 - Commercial pull in blocks (Securistyle) - art. CPB1 - 5 pcs.

The Commercial pull in blocks (Securistyle) - CPB1 is placed in front of the strike plates (MACO). The installation scheme is shown on p. 11.06.
Exterior opening casement window hardware (Side Hung)

Types of windows

Kit A

---

SECURISTYLE
"Defender" friction hinges

---

Defender EDS12" friction hinges
area of use—max 22 kg

Defender EDS16" friction hinges
area of use—max 24 kg

Defender EDSH16A*C friction hinges
area of use—max 40 kg

---

area of use of the locking mechanism

---

Width L, mm

Height H, mm

---

ALUTECH ALTW72CW | Window system with thermal break

11.10
Exterior opening casement window hardware (Side Hung)

Types of windows

- SECURISTYLE
  - “Sterling” friction hinges
    - Kit A
    - Kit B

<table>
<thead>
<tr>
<th>Width L, mm</th>
<th>Height H, mm</th>
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<tbody>
<tr>
<td>400</td>
<td>300</td>
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<tr>
<td>450</td>
<td>350</td>
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<tr>
<td>800</td>
<td>700</td>
</tr>
<tr>
<td>850</td>
<td>750</td>
</tr>
</tbody>
</table>

Sterling SPS10” friction hinges
- area of use—max 38 kg
Sterling SPS10” friction hinges
- area of use—max 55 kg

area of use of the locking mechanism

Kit A
Kit B
Exterior opening casement window hardware (Side Hung)

Types of windows

SECURISTYLE
“Storm” friction hinges

Kit A

Kit B

Area of use of the locking mechanism

Width L, mm

Height H, mm

Storm BS10” friction hinges
area of use—max 38 kg

Storm BS16” and ES16” friction hinges
area of use—max 47 kg

max 38 kg

max 47 kg

457

660

838
Exterior opening window hardware (Top Hung)

Types of windows

Kit A
L = 320...1400, H = 350...1110

Kit B
L = 1401...1600, H = 350...1100

Kit C
L = 500...1100, H = 1100...2000

Kit D
L = 1101...1720, H = 1100...2000

SECURISTYLE
"Sterling" friction hinges

SPT22W friction hinges
area of use—max 100 kg

SPT22 friction hinges
area of use—max 100 kg

SPT16 & SPT16W friction hinges
area of use—max 65 kg

SPT12 friction hinges
area of use—max 50 kg

SPT10 friction hinges
area of use—max 40 kg

area of use of the locking mechanism
friction hinges area of use
area of possible manufacturing of units with hardware from ALT profiles
Exterior opening window hardware (Top Hung)

Types of windows

Kit A
- Width L, mm: 320...1400
- Height H, mm: 350...1100

Kit B
- Width L, mm: 1401...1600
- Height H, mm: 350...1100

Kit C
- IL = 500...1100
- H = 1100...2200

Kit D
- IL = 1101...1720
- H = 1100...2200

SECURISTYLE
“Storm” friction hinges

Storm B 26” friction hinges
- Area of use: max 120 kg

Storm B 22” friction hinges
- Area of use: max 75 kg

Storm B 16” friction hinges
- Area of use: max 55 kg

Storm B 12” friction hinges
- Area of use: max 45 kg

Storm B 10” friction hinges
- Area of use: max 37 kg

Area of use of the locking mechanism

Friction hinges area of use

Area of possible manufacturing of units with hardware from ALT profiles
PAS24 Configuration Details
YALE Excluders installation on the frame and on the sash

Frame and sash profile machining for 4.8x16-A2 DIN7981

YALE Excluders allocation scheme

YALE Excluders

Support GIESSE 01974

YALE Excluders

ADS1

4.8x16-A2 DIN7981

Commercial pull Securistyle CPB1

Machining dimensions could differ depending on the type and on the hardware manufacturer

YALE Excluders (PAS24) (Securistyle) - art. ADS1 - 1 set (4 per set)
Friction hinges support (Giesse) - art. 01974 - 4 pcs.
PAS24 Configuration Details

YALE Excluders installation on the frame and on the sash

Frame and sash profile machining for 4.8x16-A2 DIN7981

YALE Excluders allocation scheme

Frame and sash profile machining for 4.8x16-A2 DIN7981 YALE Excluders allocation scheme

YALE Excluders

Support GESSE 01974

Commercial pull Securistyle CPB1

55

20

55

20

Commercial pull Securistyle CPB1

4.8x16-A2 DIN7981 Support GESSE 01974

YALE Excluders ADS1

YALE Excluders ADS1

Machining dimensions could differ depending on the type and on the hardware manufacturer.
PAS24 Configuration Details
Detachable restrictors installation on the frame and on the sash

Frame and sash profile machining for 4.8x16-A2 DIN7981

Detachable restrictors allocation scheme

Detachable restrictors (PAS24) (Securistyle) (by matching):
- art. SDR4 - 2 pcs.
- art. SDR6 - 2 pcs.
- art. SDR8 - 2 pcs.
- art. SDR10 - 2 pcs.
RELEASE KEY - art. R7437 - 1 pcs.
Friction hinges support (Giesse) - art. D1974 - 1 pcs.

Machining dimensions could differ depending on the type and on the hardware manufacturer.
### PAS24 Configuration Details

Opening stop application depending on the window type

#### Top Hung (Kits A & B)

<table>
<thead>
<tr>
<th>Kit</th>
<th>Detachable restrictors (Securistyle)</th>
<th>Maximum admissible &quot;B&quot; opening, mm</th>
<th>Application H, mm</th>
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</thead>
<tbody>
<tr>
<td>A1</td>
<td>SDR4</td>
<td>54.8</td>
<td>112</td>
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<tr>
<td>A2</td>
<td>SDR6</td>
<td>90.7</td>
<td>182</td>
</tr>
<tr>
<td>A3</td>
<td>SDR8</td>
<td>126.9</td>
<td>232</td>
</tr>
<tr>
<td>A4</td>
<td>SDR10</td>
<td>128.6</td>
<td>232</td>
</tr>
</tbody>
</table>

#### Detachable restrictors

- **Defender** friction hinges
  - EDT16: SDR4, SDR6, SDR8, SDR10
  - SDR4: 54.8, 90.7, 126.9, 128.6
  - EDT16: SDR4, SDR6, SDR8, SDR10
  - SDR4: 54.8, 90.7, 126.9, 128.6

- **Sterling** friction hinges
  - SPT16: SDR4, SDR6, SDR8, SDR10
  - SDR4: 54.8, 90.7, 126.9, 128.6

- **Storm** friction hinges
  - B16: SDR4, SDR6, SDR8, SDR10
  - SDR4: 54.8, 90.7, 126.9, 128.6

#### Machining dimensions could differ depending on the type and on the hardware manufacturer

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### Technical Catalogue

**ALUTECH ALT W72 CW**

Window system with thermal break

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**Hardware Configuration**

<table>
<thead>
<tr>
<th>Top Hung (Kits C &amp; D)</th>
<th>Detachable restrictors (Securistyle)</th>
<th>Maximum admissible &quot;B&quot; opening, mm</th>
<th>Application H, mm</th>
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</thead>
<tbody>
<tr>
<td>B12</td>
<td>SDR4</td>
<td>54.8</td>
<td>1431, 1500</td>
</tr>
<tr>
<td>B14</td>
<td>SDR6</td>
<td>90.7</td>
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<tr>
<td>B16</td>
<td>SDR8</td>
<td>126.9</td>
<td>2200</td>
</tr>
<tr>
<td>B26</td>
<td>SDR10</td>
<td>128.6</td>
<td>2200</td>
</tr>
</tbody>
</table>

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**Notes:**
- Shootbolt center locks (MACO) by matching:
  - 209719
  - 220035
  - 220036
  - 220037
- Machining dimensions could differ depending on the type and on the hardware manufacturer.
PAS24 Configuration Details
Fixing of the horizontal glass bead profile with 4.8x16 - A2 DIN7981 screw

The screw positioning over the length

Horizontal glass bead profile

Vertical glass bead profile

HArdWArE
<table>
<thead>
<tr>
<th>Fasteners</th>
<th>Article</th>
<th>Name</th>
<th>Quantity, pcs</th>
</tr>
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<td>M5x20 DIN965</td>
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<tr>
<td>4.8x16–2 DIN7981</td>
<td>10, 12, 16</td>
<td>Securistyle friction hinges</td>
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<tr>
<td>4.8x25–2 DIN7981</td>
<td>22, 22W</td>
<td>Securistyle friction hinges</td>
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<tr>
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<td>26</td>
<td>Securistyle friction hinges</td>
<td>8, 8</td>
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<tr>
<td>CPB1</td>
<td></td>
<td>Commercial pull in blocks</td>
<td>4</td>
</tr>
<tr>
<td>ADS1</td>
<td></td>
<td>YALE Excluders (PAS24)</td>
<td>8</td>
</tr>
<tr>
<td>SDR4, SDR6, SDR8, SDR10</td>
<td>Detachable restrictors (PAS24)</td>
<td>4, 4, 4, 4</td>
<td></td>
</tr>
<tr>
<td>10048</td>
<td></td>
<td>Basket 20 mm</td>
<td>2</td>
</tr>
<tr>
<td>371913, 371914</td>
<td></td>
<td>Striker plate</td>
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</tr>
<tr>
<td>58177, 58161</td>
<td></td>
<td>Shootbolt extensions</td>
<td>4, 4</td>
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<tr>
<td>58168, 58169</td>
<td></td>
<td>Shootbolt extensions</td>
<td>5, 5</td>
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<tr>
<td>101530, 102859</td>
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<td>Shootbolt extensions</td>
<td>2, 2</td>
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<tr>
<td>220232</td>
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<td>2</td>
</tr>
<tr>
<td>220233</td>
<td></td>
<td>Shootbolt extensions</td>
<td>3</td>
</tr>
<tr>
<td>209779, 220035</td>
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<td>Shootbolt center locks</td>
<td>4, 4</td>
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<tr>
<td>220036, 220037</td>
<td></td>
<td>Shootbolt center locks</td>
<td>5, 5</td>
</tr>
</tbody>
</table>

The quantity of fasteners can differ depending on the hardware type and manufacturer.
Thermal characteristics
The thermal performance calculation

Results of the thermal performance calculation of AYPC.W72CW profiles with Flixo pro 7 (7.0.628.1 kit) without foamed inserts in the area under the glass unit and inside of the profile.

Option 1. Junction: AYPC.W72.0102NE frame profile / AYPC.W72.0240NE sash profile

\[ U = \frac{\Phi}{b_f} = \frac{9.906}{20.000} - \frac{0.876 \cdot 0.236}{0.111} = 2.60 \text{ W/(m}^2 \cdot K) \]

\[ \Phi_{-B} = -9.906 \text{ W/m} \]

Results of the thermal performance calculation of AYPC.W72CW profiles with Flixo pro 7 (7.0.628.1 kit) with foamed inserts in the area under the glass unit and inside the profile.

Option 2. Junction: AYPC.W72.0102E frame profile / AYPC.W72.0240E sash profile

\[ U = \frac{\Phi}{b_f} = \frac{8.391}{20.000} - \frac{0.876 \cdot 0.236}{0.111} = 1.92 \text{ W/(m}^2 \cdot K) \]

\[ \Phi_{-B} = -8.391 \text{ W/m} \]
The ALT W72 CW aluminum profile system is designed for the outward opening top-hung and casement windows. This system corresponds to high-level airtightness, thermal and acoustic insulation requirements. In case of making the design and assembly of the windows of various sizes and purposes, the range of the system profiles allows to use the materials rationally.

In comparison with the similar systems, the distinctive feature of the ALT W72 CW system is the absence of complex operations of milling the profiles during the assembly process, which significantly simplifies work, reduces labor costs, increases the quality of the product.