ASSEMBLY INSTRUCTIONS

KFV
axxent door hinge

for aluminium doors
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1 Introduction
Please read these instructions carefully before you begin the assembly work. Follow the instructions in Chapter 2 “Safety”, in order to prevent personal injury or functional disorders.
These instructions are an integral part of the axzent door hinge and must be accessible to the specialist personnel at all times.

1.1 Manufacturer and Service
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Fax: +49 2051 278-167
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Please contact your retail partner in case of complaints or service requirement.

1.2 Validity
These instructions are applicable until they are revoked. Updated versions can be downloaded at any time from the download portal of our website www.siegenia.com/de.

1.3 Target group of this documentation
This documentation is intended for use by specialists only. All work described in these instructions is to be performed only by experienced professionals with training and practice in the assembly, retrofit as well as the commissioning and maintenance of door hinges.

1.4 Intended use
1.4.1 Installation location
• The axzent door hinge is designed exclusively for vertical installation in single-sash doors within the vertical walls of permanent structures.
• The axzent door hinge may only be installed in doors that have been assembled in a technically sound manner.
• The door design must permit the use and secure fixing of the axzent door hinge. A technical test must be performed in case of doubt.

1.5 Improper use
• Do not attempt to repair the axzent door hinge. If the axzent door hinge is damaged, it must be repaired by KFV or by a service agent authorised by KFV.
• An opening restrictor is absolutely essential:

• The service life of the axzent door hinge is shortened if a door closer is used. The durability (mechanical fatigue strength) of the axzent door hinges in combination with a door closer must be verified by cycle testing the door in accordance with EN 1191.

1.6 Maintenance and service notes
• Check that all moving components are functioning properly once a year.
• Never use cleaning agents that are aggressive or contain solvents. This could damage the surfaces of the components.
• When cleaning, ensure that no water runs into the door hinge.
• Dry the hardware thoroughly after cleaning it.
• Both the contractors and the user must be trained in the operation and maintenance of the axzent door hinge.
• When treating surfaces (e.g. painting or glazing...
the front doors), remove all hardware components and protect them from any stains which may result from this treatment.

- Remove any stains or spills immediately because they could impair functioning and damage the surface protection of the hardware!
- The door hinge is maintenance-free and must not be lubricated with oil or grease.

1.7 Installation conditions and requirements
The following requirements and conditions must be observed before and during installation:

- Before installing the axxent door hinges, check the dimensional accuracy of the door and the door frame. Do not install the axxent door hinges if the door and/or the frame is warped and/or damaged.
- Observe the specified positions and sizes for all milling and drilling dimensions within the defined tolerances.
- Install the axxent door hinge in accordance with our assembly instructions.
- Use the clamp included in the delivery supplied for assembly:
  - M6 clinch nuts, steel or stainless steel, max. head protrusion: height: 0.5 mm, diameter: 10 mm
  - Countersunk screws M6 x 25 and M6 x 40 in accordance with DIN 965 (ISO 7046), strength class at least 8.8 (also stainless steel)
- Remove any splinters from routed pockets after milling.
- Do not overtighten the screws or insert them at an angle.
- Do not perform mechanical work on the door in the region of the axxent door hinge (such as drilling or cutting).
- Use only acid-free neutral-cure sealants to prevent corrosion of components and/or the door.

1.8 Transport
- Block set the door leaf in the frame with door gap restrictors.
- Axcent door hinges are sensitive components and must therefore be handled with care. For example, they must not be thrown, hit hard or bent.

1.9 Dimensions
All measurements are given in mm.
1.10 Symbols used
The following icons are used in this document:

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠</td>
<td>General warning symbol</td>
</tr>
<tr>
<td>🚨</td>
<td>Useful information or advice</td>
</tr>
<tr>
<td>🚫</td>
<td>Do not use mechanical force</td>
</tr>
<tr>
<td>🕶</td>
<td>Wear safety goggles</td>
</tr>
<tr>
<td>🥾</td>
<td>Wear safety footwear</td>
</tr>
<tr>
<td>🕶</td>
<td>Wear safety gloves</td>
</tr>
<tr>
<td>❗</td>
<td>Continue reading the instructions at the corresponding point</td>
</tr>
<tr>
<td>⌀</td>
<td>Milling cutter and drill dimensions</td>
</tr>
<tr>
<td>🔧</td>
<td>Groove length</td>
</tr>
<tr>
<td>🔧</td>
<td>Groove depth from bottom edge of face plate</td>
</tr>
<tr>
<td>🔧</td>
<td>Groove width</td>
</tr>
<tr>
<td>🔧</td>
<td>Through hole</td>
</tr>
<tr>
<td>🛡</td>
<td>Metal profiles</td>
</tr>
<tr>
<td>🛡</td>
<td>Timber profiles</td>
</tr>
<tr>
<td>🛡</td>
<td>PVC profiles</td>
</tr>
</tbody>
</table>

Other types of indicators
Below is a list of symbols used in these instructions and their meanings:

- Items of text following this marker are found in lists.
  - Items of text following this marker are found in subordinate lists.
- Items of text with this marking in front of them are instructions that must be followed in the specified order.
- Items of text in quotation marks are cross-references to other chapters or sections.

1.11 Applicable documents
For the installation of the axxent door hinges, it is essential to observe all assembly and operating instructions that are enclosed with other (optional) components.

1.12 Appropriate disposal
- The axxent door hinges and the optional accessories should not be disposed of with household waste. Comply with the current local and national regulations.
- The packaging consists of raw materials that can be recycled and can be taken to the local waste paper disposal site.

2 Safety
Before starting the assembly work, read the following safety instructions carefully. They are designed to keep you safe and prevent hazards, injuries and material damage. Observe all warning notes.

1.13 Personal protective equipment
You will need the following personal protective equipment when working on or assembling the axxent door hinge:

- Safety shoes
- Protective gloves
- Protective goggles
1.14 Heavy components
When working with axxent door hinges, the door leaf will need to be lifted off in some cases. Risk of injury to fingers due to crushing. This presents a risk of foot injuries.

Wear safety footwear

1.15 Sharp edges
Cropping metal components creates sharp edges. This presents a risk of cutting injuries.

Wear safety gloves

1.16 Swarf flying around rapidly
During milling work, there will be swarf flying around rapidly. This presents a risk of eye injuries.

Wear safety goggles

3 Liability
Please refer to our General Terms and Conditions of Business to see our liability and warranty conditions.

www.siegenia.com/de
## 4 Component overview

<table>
<thead>
<tr>
<th>Item</th>
<th>Component</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frame part</td>
<td>TBV RT7...</td>
</tr>
<tr>
<td>2</td>
<td>Sash part</td>
<td>TBV FT7...</td>
</tr>
<tr>
<td>3</td>
<td>Cover cap</td>
<td>TBV AK7...TBV AK7...</td>
</tr>
<tr>
<td>A</td>
<td>M6 clinch nut</td>
<td>TBX ZU003</td>
</tr>
<tr>
<td>B</td>
<td>Screw cases</td>
<td>Profile-specific</td>
</tr>
<tr>
<td>C</td>
<td>Attachment part</td>
<td>Profile-specific</td>
</tr>
<tr>
<td>D</td>
<td>Countersunk screws M6 x 25/M6 x 40 DIN965, T 30</td>
<td>TBX ZU001 / profile-dependent</td>
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</tbody>
</table>
5 Size variants

The following table displays the maximum permissible load values of the axxent door hinge, taking into consideration the interaction between the height (interval between the bottom to the top axxent door hinge) and the width of the door leaf.

On the basis of a hinge clearance of 1435 mm, the maximum permissible weight of the door leaf of 120 kg decreases from a door leaf width of 1001 mm.

<table>
<thead>
<tr>
<th>Hinge clearance</th>
<th>Dimensions in mm / Weight in kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900 - 2000</td>
<td>maximum weight of the door leaf = 120 kg</td>
</tr>
<tr>
<td>1850 - 1899</td>
<td>119</td>
</tr>
<tr>
<td>1800 - 1849</td>
<td>116</td>
</tr>
<tr>
<td>1750 - 1799</td>
<td>117 113</td>
</tr>
<tr>
<td>1700 - 1749</td>
<td>118 114 109</td>
</tr>
<tr>
<td>1650 - 1699</td>
<td>115 110 106</td>
</tr>
<tr>
<td>1600 - 1649</td>
<td>116 111 107 103</td>
</tr>
<tr>
<td>1550 - 1599</td>
<td>118 113 108 104 100</td>
</tr>
<tr>
<td>1435 - 1549</td>
<td>114 109 104 100 96 92</td>
</tr>
<tr>
<td>up to 1000</td>
<td>1001 - 1050 1051 - 1100 1101 - 1150 1151 - 1200 1201 - 1250 1251 - 1300</td>
</tr>
</tbody>
</table>

6 Positioning the axxent door hinge

When using a door closer or in case of public and commercial buildings, three or more axxent door hinges must be used, with the third hinge being located directly below the top hinge.
7 Installation steps

1.1 Assembly step 1: milling the frame

For detailed milling and drilling specifications please refer to the profile-specific milling drawing.
1.1 Assembly step 2: Milling the sash

For detailed milling and drilling specifications please refer to the profile-specific milling drawing.
1.1 Assembly step 3 - Inserting the cover cap into the door frame
1.1 Assembly step 4 - Installing the frame part

Step 1 (optionally)

A Protrusion of installed clinch nut:
Height max. 0.5 mm, Ø max. 10 mm

B Mounted on rear side

Step 2

Step 3

M6 x 25/M6 x 40
max. tightening torque: 7 ± 1 Nm
1.1 Assembly step 5: Installing the sash part in the door leaf

Step 1 (optionally)

Protrusion of installed clinch nut:
Height max. 0.5 mm, Ø max. 10 mm

Step 2

Step 3

M6 x 25/M6 x 40, T 30
max. tightening torque: 7 ± 1 Nm
1.1 Assembly step 6: suspension of the door leaf

Prior to suspension, loosen the security device and turn downwards.

After the suspension, turn the security device upwards and screw into place!

 Especially suitable for adjustment,

<table>
<thead>
<tr>
<th>Material description</th>
<th>Material number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBX ZU002 Screwdriver TX--XXP010</td>
<td>3508880</td>
</tr>
</tbody>
</table>
1.1 Assembly step 7: Adjustment options

- Perform adjustments with the unit installed.
- Always adjust all door hinges synchronously.
- During the elevating adjustment, ensure that the top hinge bears the load in a controlled manner.

### Height adjustment
+ 4 mm  
- 2 mm

### Side adjustment
+ 8 mm  
- 2 mm

### Adjusting the compression
+ 1.5 mm  
- 1.5 mm

<table>
<thead>
<tr>
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