The completely concealed hinge system
“TECTUS” – This Latin word for “concealed” signifies SIMONSWERK’s newly developed, completely hidden hinge system.

This outstanding hinge system makes it possible, for the first time, to achieve uninterrupted flush-faced surfaces on the hinge side of the door creating a visual, harmonic, overall interior design impression. This becomes of special significance in applications where, in addition to the high performance features of the hinge system, the design aspect plays a more and more important role.

**Design meets function:** Considering all the potential door fitting requirements was the starting point for SIMONSWERK designers to develop the complete hinge system – **TECTUS**. This unrivalled, award winning hinge is now available for use on un-rebated doors, covering the full range of load capacities from 40 kgs, 60 kgs, 100 kgs and 180 kgs up to 200 kgs.

**TECTUS** – from SIMONSWERK

*More applications – Freedom in design – Complete solutions*

„Concealed means using a **TECTUS** system to provide the best possible hinge technology in the smallest amount of space“
TECTUS

The new, completely concealed hinge system for unrebated premium choice interior doors, high performance and heavy-duty doors.

After the successful introduction of the three TECTUS versions we now launch two further invisible hinges: The new ones of the completely concealed hinge system are called TECTUS TE 210 3D and TECTUS TE 630 3D. By this enlargement a full range of application possibilities can be covered.

TECTUS TE 210 3D
for premium choice doors
Load capacity 40 kgs
Pages 4 - 7

TECTUS TE 310 3D
for premium choice doors
Load capacity 60 kgs
Pages 8 - 11

TECTUS TE 510 3D
for high performance doors
Load capacity 100 kgs
Pages 12 - 15

TECTUS TE 610 3D
for heavy-duty doors
Load capacity 180 kgs
Pages 16 - 19

TECTUS TE 630 3D
for heavy-duty doors
Load capacity 200 kgs
Pages 20 - 23

TECTUS

The answer to modern trends and demands of interior design.

Technical amendments reserved. Date of issue: February 2006
TECTUS TE 210 3D
for premium choice doors

Completely concealed hinge system for premium choice doors up to 40 kgs.

Three-dimensionally adjustable:
Side +/- 3 mm, height +/- 2,5 mm, depth +/- 1,5 mm.
Maintenance-free slide bearings. Right hand and left hand applicable.
For unrebated doors with wood, steel and aluminium frames.

Finishes available:
Stainless steel effect (galvanised surface)
F1-coloured – powder coated
F2-coloured – powder coated

Technical Data:
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TECTUS TE 210 3D
for premium choice doors

Descriptive text:
SIMONSWERK hinge TECTUS TE 210 3D. Completely concealed for unrebated doors with wood, steel or aluminium frames. Opening angle up to 180°. Size 140 mm, right hand and left hand applicable, maintenance-free slide bearings, three-dimensionally adjustable: Side +/- 3 mm, height +/- 2.5 mm, depth +/- 1.5 mm, finish.................

Block Frame: No additional fixing device necessary
Casing frame: With galvanised fixing plate TECTUS TE 210 3D FZ
Steel frame: With galvanised or stainless steel receiver TECTUS TE 210 3D SZ
Aluminium frame: With receiver supplied by frame manufacturer

Examples of application:

Casing frame
Block frame
Steel frame
Assembly

Installation

Affix the door part of the hinge by means of wood screws Ø 4 mm.

**Block frame:** Drill the screw holes by using drilling jig TE 210 3D and drill bit Ø 3 mm. Affix frame part by using enclosed wood screws.

**Casing frame:** Affix the fixing plate behind the casing, affix frame part by using enclosed screws M 5.

**Steel frame:** Affix frame part of the hinge with the prepared receiver by using the enclosed screws M 5.

Fix cover plates onto frame and door part by using the enclosed screws.

Calculation of the milling width

Mill with cutter Ø 16 mm, use collar ring Ø 30 mm and select universal milling frame with milling templates No. 5 250663 6 (frame) and No. 5 250664 6 (door).
Side adjustment

1. Adjust the adjusting spindle using Allan key 4 mm.
   Twist left - towards hinge (max. 3 mm)
   Twist right - towards lock (max. 3 mm)

Height adjustment

1. Wedge the door.
2. Slightly loosen the clamping screws.
3. Bring the door to the correct height.
4. Retighten the clamping screws.

Depth adjustment

1. Slightly loosen clamping screws by using Allan key 4 mm.
2. Put the door into the correct depth.
3. Retighten the clamping screws.
TECTUS TE 310 3D
for premium choice doors

Completely concealed hinge system for premium choice doors up to 60 kgs.

Three-dimensionally adjustable:
Side +/- 3 mm, height +/- 3 mm, depth +/- 1 mm.
Maintenance-free slide bearings. Right hand and left hand applicable.
For unrebated doors with wood, steel and aluminium frames.

Available finishes:
Stainless steel effect (galvanised surface)
F1-coloured - powder coated
F2-coloured - powder coated

Technical Data:
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<td>Diameter of cutter</td>
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**TECTUS TE 310 3D**
for premium choice doors

**Descriptive text:**
SIMONSWERK hinge TECTUS TE 310 3D. Completely concealed for unrebated doors with wood, steel or aluminium frames. Opening angle up to 180°, size 140 mm, right hand and left hand applicable, maintenance-free slide bearings, three-dimensionally adjustable: Side and height +/- 3 mm, depth +/- 1 mm, finish

**Block frame:** No additional fixing device necessary
**Casing frame:** With galvanised fixing plate TECTUS TE 310 3D FZ
**Steel frame:** With galvanised or stainless steel receiver TECTUS TE 310 3D SZ
**Aluminium frames:** With receiver supplied by frame manufacturer

**Examples of application:**

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**Block frame**

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**Steel frame**
Assembly

Installation

Affix the door part of the hinge by means of wood screws Ø 5 mm

**Block frame:** Drill the screw holes by using drilling jig TE 310 3D and drill bit Ø 3 mm. Affix frame part by using enclosed wood screws.

**Casing frame:** Affix the fixing plate behind the casing, affix frame part by using enclosed screws M 5.

**Steel frame:** Affix frame part of the hinge with the prepared receiver by using the enclosed screws M 5.

Fix cover plates onto frame and door part by using the enclosed screws.

Calculation of the milling width

Calculation of the milling width:

\[ A = \text{Groove frame width up to sealing level} \]
\[ B = \text{Door leaf thickness, resp. 1. door groove} \]
\[ A - B + 4 = \text{Measure X} \]

The result has to be a measure between 4 and max. 6,5 mm.

(Steel Frame: X = 5 mm)

Mill with cutter Ø 24 mm, use collar ring Ø 30 mm and select universal milling frame with milling templates No. 5 250371 6 (frame) No. 5 250370 6 (door).
### Adjustment

#### Side adjustment

1. Adjust the adjusting spindle 1 using Allan key 4 mm.
   - Twist left - towards hinge (max. 3 mm)
   - Twist right - towards lock (max. 3 mm)

#### Height adjustment

1. Wedge the door
2. Slightly loosen the clamping screws 2
3. Bring the door to the correct height
4. Retighten the clamping screws 2

#### Depth adjustment

1. Slightly loosen clamping screws 3 by using Allan key 4 mm.
2. Put the door into the correct depth.
3. Retighten the clamping screws 3.
TECTUS TE 510 3D
for high performance doors

Completely concealed hinge system for unrebated doors up to 100 kgs.

Three-dimensionally adjustable:
Side +/- 3 mm, height +/- 3 mm, depth +/- 1 mm.
Maintenance-free slide bearings. Right hand and left hand applicable.
For unrebated doors with wood, steel or aluminium frames.

Accessories: cable set TECTUS TE 510 3D optional for cable conduction.

Available finishes:
Stainless steel effect (galvanised surface)
F1-coloured - powder coated
F2-coloured - powder coated

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<td>Diameter of cutter</td>
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**TECTUS TE 510 3D**
for high performance doors

**Descriptive text:**
SIMONSWERK high performance hinge TECTUS TE 510 3D. Completely concealed for unrebated doors with wood, steel or aluminium frames. Opening angle up to 180°, size 180 mm, right hand and left hand applicable, maintenance-free slide bearings, three-dimensionally adjustable: side and height +/- 3 mm, depth +/- 1 mm, finish..............

**Block frame:** No additional fixing device necessary

**Casing frame:** With galvanised fixing plate TECTUS TE 510 3D FZ

**Steel frame:** With galvanised or stainless steel receiver TECTUS TE 510 3D SZ

**Aluminium frame:** With receiver supplied by frame manufacturer

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**Examples of application:**

![Casing frame](image1)

![Block frame](image2)

![Steel frame](image3)
Assembly

**Installation**

Affix the door part of the hinge by means of wood screws Ø 5 mm

**Block frame:** Drill the screw holes by using drilling jig TE 510 3D and drill bit Ø 3 mm. Affix frame part by using enclosed wood screws.

**Casing frame:** Affix the fixing plate behind the casing, affix frame part by using enclosed screws M 5.

**Steel frame:** Affix frame part of the hinge with the prepared receiver by using the enclosed screws M 5.

Fix cover plates onto frame and door part by using the enclosed screws.

**Calculation of the milling width**

**Calculation of the milling width:**

\[
A = \text{Groove frame width up to sealing level} \\
B = \text{Door leaf thickness, resp. 1. door groove} \\
A - B + 3 = \text{Measure X}
\]

The result has to be a measure between 3 and max. 5 mm.

(Steel Frame: \(X = 5\) mm)

Mill with cutter Ø 24 mm, use collar ring Ø 30 mm and select universal milling frame with milling templates No. 5 250374 6 (frame) No. 5 250600 6 (door).
**Adjustment**

**Side adjustment**

1. Adjust the adjusting spindle 1 using Allan key 4 mm.
   - Twist left - towards hinge (max. 3 mm)
   - Twist right - towards lock (max. 3 mm)

**Height adjustment**

1. Wedge the door.
2. Slightly loosen the clamping screws 2.
3. Bring the door to the correct height.
4. Retighten the clamping screws 2.

**Depth adjustment**

1. Slightly loosen clamping screws 3 by using Allan key 4 mm.
2. Put the door into the correct depth.
3. Retighten the clamping screws 3.
TECTUS TE 610 3D
for heavy-duty doors

Completely concealed hinge system for heavy-duty doors up to 180 kgs.

Three-dimensionally adjustable:
Side +/- 3 mm, height +/- 3 mm, depth +/- 1 mm.
Maintenance-free slide bearings. Right hand and left hand applicable.
For unrebated doors with wood, steel and aluminium frames.

Available finishes:
Stainless steel effect (galvanised surface)
F1-coloured - powder coated
F2-coloured - powder coated

Technical Data:
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TECTUS TE 610 3D
for heavy-duty doors

**Descriptive text:**
SIMONSWERK heavy-duty hinge TECTUS TE 610 3D. Completely concealed for unrebated doors with wood, steel or aluminium frames. Opening angle up to 180°. Size 210 mm, right hand and left hand applicable, maintenance-free slide bearings, three-dimensionally adjustable: side and height +/- 3 mm, depth +/- 1 mm, finish.................

- **Block frame:** No additional fixing device necessary
- **Casing frame:** With galvanised fixing plate TECTUS TE 610 3D FZ
- **Steel frame:** with galvanised or stainless steel receiver TECTUS TE 610 3D SZ
- **Aluminium frame:** With receiver supplied by frame manufacturer

**Examples of application:**

Casing frame

Block frame

Steel frame
**Assembly**

**Installation**

1. **Block frame:** Affix the sash part of the hinge by means of wood screws Ø 6 mm.

2. **Casing frame:** Affix the fixing plate behind the casing, affix frame part by using enclosed screws M 6.

3. **Steel frame:** Affix frame part of the hinge with the prepared receiver by using the enclosed screws M 6.

2. Mount the adjusting bolt and the threaded stud at the bottom of the frame construction. Hang the door leaf with the hinge part onto the frame construction. A locking device is of assistance.

3. Fasten the hinge to the frame construction by means of the enclosed screws and the eccentric adjustment.

4. Adjust and align door with regard to height. Tighten frame screws and screw on cover plates.

**Calculation of the milling width**

Calculation of the milling width:

\[ A = \text{Groove frame width up to sealing level} \]

\[ B = \text{Door leaf thickness, resp. 1. door groove} \]

\[ A - B + 4.5 = \text{Measure } X \]

The result has to be a measure between 4.5 and max. 6.5 mm.

(Steel Frame: \(X = 5\ mm\))

Mill with cutter Ø 24 mm, use collar ring Ø 30 mm and select universal milling frame with milling templates No. S 250372 5 (step 1) and No. S 250373 5 (step 2).
**Fixing plate / Receiver TECTUS**

**Casing frames**
Fixing plate TECTUS TE 610 3D FZ
1 Fixing plate galvanised, spacers (1, 2 and 3 mm)

**Steel frames**
Receiver TECTUS TE 610 3D SZ
Finish: galvanised or stainless steel

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**Adjustment**

**Side adjustment**
1. Adjust the adjusting spindle 1 using Allan key 5 mm.
   Twist left - towards hinge (max. 3 mm)
   Twist right - towards lock (max. 3 mm)

**Height adjustment**
1. Slightly loosen the clamping screws 2 by using Allan key 5 mm.
2. Bring the door to the correct height by twisting the adjusting screw 3.
3. Retighten the clamping screws 2.

**Depth adjustment**
1. Slightly loosen clamping screws 2 by using Allan key 5 mm.
2. Put the door into the correct depth by twisting the eccentric 4 by using Allan key 3 mm.
3. Retighten the clamping screws 2.
TECTUS TE 630 3D
for heavy-duty doors

Completely concealed hinge system for heavy-duty doors up to 200 kgs.

Three-dimensionally adjustable:
Side +/- 3 mm, height +/- 3 mm, depth +/- 1 mm.
Maintenance-free slide bearings. Right hand and left hand applicable.
For unrebated doors with wood, steel and aluminium frames.

Available finishes:
Stainless steel effect (galvanised surface)
F1-coloured - powder coated
F2-coloured - powder coated

Technical Data:

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TECTUS TE 630 3D
for heavy-duty doors

Descriptive text:
SIMONSWERK heavy-duty hinge TECTUS TE 630 3D. Completely concealed for unrebated doors with wood, steel or aluminium frames. Opening angle up to 180°, Size 240 mm, right hand and left hand applicable, maintenance-free slide bearings, three-dimensionally adjustable: side and height +/- 3 mm, depth +/- 1 mm, Finish..................

Block frame: No additional fixing device necessary
Casing frame: With galvanised fixing plate TECTUS TE 630 3D FZ
Steel frame: with galvanised or stainless steel receiver
TECTUS TE 630 3D SZ
Aluminium frame: With receiver supplied by frame manufacturer

Examples of application:

Casing frame

Block frame

Steel frame
Assembly

Installation

Affix the door part of the hinge by means of wood screws Ø 5 mm.

**Block frame:** Drill the screw holes by using drilling jig TE 630 3D and drill bit Ø 3 mm. Affix frame part by using enclosed wood screws.

**Casing frame:** Affix the fixing plate behind the casing, affix frame part by using enclosed screws M 5.

**Steel frame:** Affix frame part of the hinge with the prepared receiver by using the enclosed screws M 5.

Fix cover plates onto frame and door part by using the enclosed screws.

**Calculation of the milling width**

**Calculation of the milling width:**

\[ A = \text{Groove frame width up to sealing level} \]
\[ B = \text{Door leaf thickness, resp. 1. door groove} \]
\[ A - B + 3 = \text{Measure X} \]

The result has to be a measure between 3 and max. 5 mm. (Steel Frame: X = 5 mm)

Mill with cutter Ø 24 mm, use collar ring Ø 30 mm and select universal milling frame with milling templates No. 5 250659 5 (frame, step 1) No. 5 250660 5 (frame, step 2), No. 5 250661 5 (door, step 1), No. 5 250662 5 (door, step 2).
Adjustment

**Side adjustment**

1. Adjust the adjusting spindle 1 using Allan key 4 mm.
   - Twist left - towards hinge (max. 3 mm)
   - Twist right - towards lock (max. 3 mm)

**Height adjustment**

1. Wedge the door.
2. Slightly loosen the clamping screws 2.
3. Bring the door to the correct height.
4. Retighten the clamping screws 2.

**Depth adjustment**

1. Slightly loosen clamping screws 3 by using Allan key 4 mm.
2. Put the door into the correct depth.
3. Retighten the clamping screws 3.
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