AVENTOS
An inspiring range of lift systems

www.blum.com
Ease of motion – multitude of options

The AVENTOS lift system brings ease of motion to the wall cabinet. Even large and heavy lift systems can be opened with the utmost ease. What makes AVENTOS especially practical is that it offers the furniture user full freedom of movement and provides the necessary cabinet access at all times. Your customers will be inspired.
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AVENTOS – An inspiring range of lift systems

AVENTOS lift systems ensure high quality of motion. Whether in the kitchen or another living area, for small fronts or large, AVENTOS ensures that lift systems can be opened with consummate ease. Freedom of movement is guaranteed throughout, and fronts are always out of the user’s way.

AVENTOS HL
- Lift up
- Ideal for large, one-part fronts in larders and wall cabinets
- Suitable for use with fronts above it
- Conceals electronic devices, for example, behind a continuous front

AVENTOS HS
- Up & over lift system
- Ideal for large, one-part fronts in wall cabinets
- The lift system pivots over the cabinet
- Can also be combined with cornice or crown moulding

AVENTOS HF
- Bi-fold lift system
- Ideal for high, bi-fold fronts in wall cabinets
- Low upward space requirement
- Can be used with fronts of different heights
AVENTOS HK
Stay lift
- Ideal for heavy fronts in wall cabinets
- Low upward space requirement
- Complete fitting

AVENTOS HK-S
Small stay lift
- Ideal for small fronts in top wall cabinets
- Lift mechanism fits harmoniously into small cabinets, e.g. above the refrigerator or larder
- Complete fitting

AVENTOS HK-XS
Small stay lift
- Ideal for small, top wall cabinets
- Also suitable for cabinets with low internal depths, e.g. above the extractor
- Small fitting, can be used on one or both sides
Lift system provides ideal access

A good kitchen is beautiful as well as practical. Wall cabinets with lift systems ensure head clearance and make it easy to access the contents of the cabinet, which means that cups and glasses are never far away. AVENTOS ensures that all fronts, no matter how wide, narrow or heavy, are always as light as a feather to open.

Blum’s ideas for practical kitchens

Good workflows, sufficient storage space and high quality of motion – at Blum, these are the three key features of a practical kitchen.

www.blum.com/ideas
Workflow – Easy access

With AVENTOS, the front moves up, taking it right away from the work area. This makes the cabinet contents easy to access at all times. If the cabinet is placed near the dishwasher, clean glasses can be put back in their rightful place at lightning speed.

Space – Fits in with storage space requirements

Wall cabinets with lift systems are flexible with regard to size. The optimum size depends on your room layout, your individual storage space requirements and your aesthetic preferences. Depending on the lift system type, heights of approx. 185 mm to 1040 mm are possible, coupled with widths ranging from 300 mm to 1800 mm.

Motion – New effortlessness for lift systems

Even heavy and wide fronts have a feather-light glide. Regardless of the force applied, all AVENTOS lift systems always close silently and effortlessly – thanks to BLUMOTION. With SERVO-DRIVE, the electrical motion support system, lift systems open with just a light touch and close at the touch of an easily accessible switch.
Everything at a glance

The graphic below shows how the six fittings from the AVENTOS range can be used in a common kitchen system.

<table>
<thead>
<tr>
<th>Tall cabinet</th>
<th>Wall cabinet</th>
<th>Recess</th>
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<tbody>
<tr>
<td>17 R</td>
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<tr>
<td>1 R</td>
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</table>

* AVENTOS is flexible enough to be used in wall cabinets using 4-tier systems in addition to the 6-tier system shown above.
For ergonomic reasons, we recommend a maximum cabinet height of 600 mm. However, higher lift systems can also be implemented subject to the power factor limits (see page 56).

Depending on the power factor.

Cannot be combined with BLUMOTION.

The fascinating quality of motion of AVENTOS fittings is now also available for lift systems designed with mitres or rebates. The standard fittings can still be used with simple positional adjustments.

Available for the AVENTOS HF, HS, HL and HK lift systems.
Fascinating ease of motion for lift systems

With its innovative motion technologies, Blum not only makes opening and closing lift systems easier – it turns the process into an experience.

**BLUMOTION**
Soft and effortless closing
BLUMOTION is synonymous with fascinating quality of motion. Allow your customers to see for themselves – they will be inspired.

**SERVO-DRIVE**
Unsurpassed ease of use
A single touch suffices and the lift system opens as if by magic. To close, simply press the easy-to-access switch on the inside of the cabinet.

**TIP-ON**
Simply press the lift system and it opens
TIP-ON for AVENTOS, our mechanical opening support system, now makes handle-less fronts easy and comfortable to open.
Reliability –
a furniture lifetime

We want our fitting solutions to provide your customers with many years of enjoyment and satisfaction. That is why we focus on ensuring the highest quality.

Long warranty
Our promise to provide “quality a furniture lifetime” naturally applies to AVENTOS as well. We are so confident of this that we offer you a full 5-year warranty in respect of all the electrical components used in combination with Blum products.

Precision testing
Each fitting is tested extensively according to strict criteria. Testing is carried out at our own test labs as well as in conjunction with international testing organisations. An AVENTOS lift system goes through the opening and closing process up to 80,000 times – only then are we satisfied in terms of our quality.

Meticulous selection and processes
High-quality robust materials. Exact assembly. Fast and simple assembly. From the choice of material right through to construction and start-up, we insist on consistently high levels of quality.
Just a few simple steps are required

Easy insertion: Assembly of the cross stabiliser for AVENTOS HS and AVENTOS HL is now completely tool-free.
Almost entirely tool-free

AVENTOS can be assembled with ease and the proven CLIP technology makes the process almost entirely tool-free. The only tool required is a power screwdriver for adjusting the lift mechanism in precise accordance with the front weight. The fact that the cross stabiliser for AVENTOS HS is attached without tools significantly reduces the amount of effort required for assembly. Fronts can be conveniently adjusted in 3 dimensions to ensure perfect gap alignment.

SERVO-DRIVE: Start-up made easy

SERVO-DRIVE for AVENTOS only has a few components. These are easy to attach and can be precisely adjusted. In just a few simple steps, SERVO-DRIVE can be assembled, cable added, switch installed and the system can be put into operation.
FAQs
AVENTOS

Why is it that the lift system rises or falls when you let go?
It is because the lift mechanism has not been set correctly. The fine adjustment process involves using a power screwdriver and the integral calibration to adjust the lift mechanism in precise accordance with the front weight. The result: The front stays in the position required.

Is it also possible to use opening angle stops?
Yes, it is possible for AVENTOS HF, HK, HK-S and HK-XS. In the case of SERVO-DRIVE for AVENTOS, the drive unit must be mounted first and once the opening angle stop has been subsequently mounted, a reference run must be performed.

Can the AVENTOS concept be implemented without using handles?
Yes, you can equip the lift system with SERVO-DRIVE (an electrical motion support system) or TIP-ON (a mechanical opening support system). A single touch suffices and the lift systems appear to open by themselves.

SERVO-DRIVE for AVENTOS

Is it possible to synchronise multiple lift systems?
Yes. Up to three drive units can be set so that they move simultaneously. This is especially practical in cases where there is a shared front covering several cabinets. In addition, the “collision avoidance” function for corner solutions allows you to adjust the drive units so that only one front ever opens at a time.

What does my customer see when the wireless switch battery has to be replaced?
The SERVO-DRIVE switch contains a battery display. It flashes red when the battery power begins to weaken. Battery replacement is very simple, All you need is a conventional button cell battery (type CR 2032).

What happens when the power goes out?
When there is a power cut SERVO-DRIVE for AVENTOS is not activated. However, you can continue to open and close manually without restrictions. Once the power has been restored, you can carry on using everything as normal without having to make any additional settings.

Can SERVO-DRIVE for AVENTOS be deactivated?
Your customers can deactivate SERVO-DRIVE for AVENTOS very easily. This is especially practical when cleaning the fronts, for example. We recommend a switched outlet for this. While deactivated, the lift systems can continue to be opened and closed manually.
Award-winning design – enchanting Elegance

Along with high functionality, the AVENTOS range is sure to inspire through its simple yet elegant design. The fact that it is has received a number of international awards is testament to this.
The AVENTOS HF bi-fold lift system is the ideal solution for high and mid wall units. Thanks to the two-part front, even high cabinets can be accommodated. With AVENTOS HF, there is no limit to the variety of planning and design options available. Whether your customers want wooden fronts, narrow or wide aluminium frames, combinations of different materials or even fronts of different heights, you will always be able to meet their individual requirements.

Watch video of the assembly and adjustment processes

www.blum.com/1Ioij1
Greater freedom of design: AVENTOS HF allows you to combine different materials for the lift system front.

Innovative technology that offers protection: The CLIP top centre hinge prevents fingers getting caught.

At the heart of this fitting solution is the lift mechanism with BLUMOTION and a robust spring package.
The Blum distance bumper creates and maintains the required trigger path of 2 mm.

This cable is used to supply power to the drive unit. The maximum permitted operating power is 24 V.

This node establishes the electrical connection between the distribution cable and the transformer. The cable end protector is inserted into the “open” end of the cable.

The Blum transformer can be used worldwide. It converts the country-specific mains voltage to 24 V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.

The transformer is easily and securely stored in the transformer unit housing.

This node is used to cover the lift mechanism, drive unit and distribution cable. To cover the cabling, the cover cap can be expanded up to an internal depth of 350 mm.

The SERVO-DRIVE switch is attached to the cabinet side at the bottom. The switch signals the drive unit via a wireless connection. The 2.4 GHz frequency is certified for international use.

The drive unit is attached without tools to the left lift mechanism. The same drive unit can be used for all lift mechanisms.
3 types of lift mechanisms are enough to cover a wide range of applications.

Using the power factor, you can calculate the number of required lift mechanisms. The power factor required depends on the weight of the lower and upper front and the cabinet height. The power factor and the door weight can be increased by 50% when a third lift mechanism is used.

The larger front must be at the top for asymmetrical fronts.

Wooden fronts and wide alu frames symmetrical/asymmetrical

Power factor LF = cabinet height KH (mm) x front weight bottom and top incl. handle (kg)

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

We recommend two synchronised drive units for a power factor > 17250.

AVENTOS HF

Order information
Standard and SERVO-DRIVE for AVENTOS HF

Power factor LF

<table>
<thead>
<tr>
<th>LF 2600–5500</th>
<th>LF 2600–5500</th>
</tr>
</thead>
<tbody>
<tr>
<td>20F2200.05</td>
<td>20F2500.05</td>
</tr>
<tr>
<td>LF 960–2650</td>
<td>LF 5350–10150</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LF 9000–17250</th>
<th>LF 13500–25900</th>
</tr>
</thead>
<tbody>
<tr>
<td>20F2800.05</td>
<td>20F2800.05</td>
</tr>
<tr>
<td>LF 960–2650</td>
<td>LF 13500–25900</td>
</tr>
</tbody>
</table>

Lift mechanism set

<table>
<thead>
<tr>
<th>1</th>
<th>Lift mechanism set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power factor LF</td>
</tr>
<tr>
<td>2600–5500 (1 piece LF 960–2650)</td>
<td>20F2200.05</td>
</tr>
<tr>
<td>5350–10150</td>
<td>20F2500.05</td>
</tr>
<tr>
<td>9000–17250 (3 pieces LF 13500–25900)</td>
<td>20F2800.05</td>
</tr>
</tbody>
</table>

Composed of:
- 2 x symmetrical lift mechanisms
- 10 x chipboard screws Ø 4 x 35 mm

Telescopic arm set

<table>
<thead>
<tr>
<th>2</th>
<th>Telescopic arm set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nickel plated steel</td>
</tr>
<tr>
<td>Cabinet height a 480–570 mm</td>
<td>20F3200.01</td>
</tr>
<tr>
<td>Cabinet height a 560–710 mm</td>
<td>20F3500.01</td>
</tr>
<tr>
<td>Cabinet height a 700–900 mm</td>
<td>20F3800.01</td>
</tr>
<tr>
<td>Cabinet height a 760–1040 mm</td>
<td>20F3900.01</td>
</tr>
</tbody>
</table>

Composed of:
- 2 x symmetrical telescopic arms

a Theoretical cabinet height for asymmetrical fronts = front height top (FHO) x 2 (incl. gaps)

We recommend two synchronised drive units for a power factor > 17250.

Standard
SERVO-DRIVE
### Cover cap set

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>1 x cover cap large left</td>
<td>Nylon</td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>1 x cover cap large right</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3c</td>
<td>2 x round cover caps</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Composed of:**
- 1 x cover cap large left
- 1 x cover cap large right
- 2 x round cover caps

### Cover cap set for SERVO-DRIVE

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>1 x SERVO-DRIVE cover cap large left</td>
<td>Nylon</td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td>1 x cover cap large right</td>
<td></td>
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</tr>
<tr>
<td>3c</td>
<td>2 x round cover caps</td>
<td></td>
<td></td>
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<tr>
<td>3d</td>
<td>2 x SERVO-DRIVE switches</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3e</td>
<td>6 x Blum distance bumpers, Ø 5 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Composed of:**
- 1 x SERVO-DRIVE cover cap large left
- 1 x cover cap large right
- 2 x round cover caps
- 2 x SERVO-DRIVE switches
- 6 x Blum distance bumpers, Ø 5 mm

### Mounting plate for telescopic arm

All horizontal mounting plates with 0 mm distance

**Recommendation:**

- Screws
- EXPANDO
- Knock-in

### Mounting plate for SERVO-DRIVE hinge

Standard mounting plates, distance depends on the top gap

**Recommendation:**

- Screws
- EXPANDO
- Knock-in

### Mounting plate for CLIP top 120° hinge

Standard mounting plates with 0 mm distance

**Recommendation:**

- Screws
- EXPANDO
- Knock-in

### Mounting plate for CLIP top centre hinge

Standard mounting plates with 0 mm distance

**Recommendation:**

- Screws
- EXPANDO
- Knock-in

### Opening angle stop

Nylon

- 104° Dark grey
- 83° Dust grey

**Code:**
- 20F7051
- 20F7011

### Bit PZ cross slot

Size 2, length 39 mm

**Code:**
- BIT-PZ K52

### Blum transformer, flex and transformer unit housing

**Order information**

**Standard and SERVO-DRIVE for AVENTOS HF**

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3. Use chipboard screws (609.1x00) for wooden fronts. Use countersunk self tapping screws (660.0950) for wide aluminium frames.

* Number of hinges, see front assembly
Planning information
Standard and SERVO-DRIVE for AVENTOS HF

Wooden fronts and wide alu frames symmetrical

Drilling position

- Drilling depth 5 mm
- ** Alternative drilling

Drilled hole for SERVO-DRIVE distribution cable, left only

Cabinet height
480–549 mm   KH x 0.3 - 28 mm
550–1040 mm   KH x 0.3 - 57 mm

Front assembly

KH  Cabinet height
SFA  Side front overlay

Number of hinges
3 hinges starting at cabinet width 1200 mm and/or 12 kg door weight
4 hinges starting at cabinet width 1800 mm and/or 20 kg door weight

Min. gap F = 1.5 mm
* 37 mm for cruciform mounting plates (37/32)

CLIP top 120° hinge unsprung

- CLIP top 120° special hinge

<table>
<thead>
<tr>
<th>Cabinet height (KH)</th>
<th>X</th>
<th>X</th>
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</thead>
<tbody>
<tr>
<td>480–549 mm</td>
<td>70 mm</td>
<td>68 mm</td>
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<tr>
<td>550–1040 mm</td>
<td>47 mm</td>
<td>45 mm</td>
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CLIP top centre hinge

Min. gap F = 1.5 mm

Drilling distance TB for standard hinge

<table>
<thead>
<tr>
<th>Front overlay FA</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</tbody>
</table>

Mounting plate
Planning information
Standard and SERVO-DRIVE for AVENTOS HF

- **Space requirement**
- **Screw-on assembly**
- **INSERTA/EXPANDO assembly**

**SERVO-DRIVE switch**

**Blum distance bumper drilling position**

- **Blum distance bumper**

- **Standard**
- **SERVO-DRIVE**

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FH Front height

- Opening angle stop
  - Without: \[ Y = FH \times 0.44 + 38 \text{ mm} \]
  - 104°: \[ Y = FH \times 0.24 + 34 \text{ mm} \]
  - 83°: \[ Y = 0 \text{ mm} \]

- **Y** = FH x 0.24 + 34 mm
- **Y** = FH x 0.44 + 38 mm

---

*From cabinet bottom edge for fronts that protrude below the cabinet*

Recommendation for aluminium frames: Consider drilling Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

Do not glue Blum distance bumper.
Wooden fronts and wide alu frames asymmetrical

### Drilling position

- **Drilling position**
  - 4 x Ø 4 x 35 mm
  - Drilled hole for SERVO-DRIVE distribution cable, left only

**Drilling depth 5 mm**

**Alternative drilling**

<table>
<thead>
<tr>
<th>Cabinet height</th>
<th>Theoretical cabinet height (TKH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>480–549 mm</td>
<td>TKH x 0.3 - 28 mm</td>
</tr>
<tr>
<td>550–1040 mm</td>
<td>TKH x 0.3 - 57 mm</td>
</tr>
</tbody>
</table>

### Space requirement

- **Theoretical cabinet height** (TKH) = front height top (FHo) x 2 (including gaps)

### Front assembly

- **Min. lower front height**
  - X + 19 + FAu

- **Front height top** (FHo)

- **Theoretical cabinet height** (TKH)

- **Side front overlay** (SFA)

- **Lower front overlay** (FAu)

### Number of hinges

- 3 hinges starting at cabinet width 1200 mm and/or 12 kg door weight
- 4 hinges starting at cabinet width 1800 mm and/or 20 kg door weight

### CLIP top 120° hinge

- **Unsprung CLIP top 120° hinge**

### CLIP top centre hinge

- **Min. gap** F = 1.5 mm

* 37 mm for cruciform mounting plates (37/32)
Planning information
Standard and SERVO-DRIVE for AVENTOS HF

Space requirement

FH  Front height

Opening angle stop

Without  \[ Y = FH \times 0.44 + 38 \text{ mm} \]

104°  \[ Y = FH \times 0.24 + 34 \text{ mm} \]

83°  \[ Y = 0 \text{ mm} \]

Screw-on assembly

Blum distance bumper drilling position

* From cabinet bottom edge for fronts that protrude below the cabinet

Recommendation for aluminium frames: Consider drilling Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

Do not glue Blum distance bumper.

SERVO-DRIVE switch

Blum distance bumper

Standard

SERVO-DRIVE
Using the power factor, you can calculate the number of required lift mechanisms. The power factor required depends on the weight of the lower and upper front and the cabinet height.

The larger front must be at the top for asymmetrical fronts.

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

Aventos HF

3 types of lift mechanisms are enough to cover a wide range of applications.

Power factor LF = cabinet height KH (mm) x front weight bottom and top incl. handle (kg)

- Narrow aluminium frames symmetrical/asymmetrical

Order information
Standard and SERVO-DRIVE for AVENTOS HF

- LF Power factor

- Lift mechanism one-sided
- Lift mechanism two-sided

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

### Lift mechanism set

<table>
<thead>
<tr>
<th>1</th>
<th>Lift mechanism set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power factor LF</td>
</tr>
<tr>
<td></td>
<td>2600–5500 (1 piece LF 960–2650)</td>
</tr>
<tr>
<td></td>
<td>5350–10150</td>
</tr>
<tr>
<td></td>
<td>9000–17250 (3 pieces LF 13500–25900)</td>
</tr>
</tbody>
</table>

**Composed of:**
- 2 x symmetrical lift mechanisms
- 10 x chipboard screws Ø 4 x 35 mm

### Telescopic arm set

<table>
<thead>
<tr>
<th>2</th>
<th>Telescopic arm set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nickel plated steel</td>
</tr>
<tr>
<td></td>
<td>Cabinet height* 480–570 mm</td>
</tr>
<tr>
<td></td>
<td>Cabinet height* 560–710 mm</td>
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<tr>
<td></td>
<td>Cabinet height* 700–900 mm</td>
</tr>
<tr>
<td></td>
<td>Cabinet height* 760–1040 mm</td>
</tr>
</tbody>
</table>

**Composed of:**
- 2 x symmetrical telescopic arms

* *Theoretical cabinet height* for asymmetrical fronts = front height top (FHO) x 2 (incl. gaps)
### Order information

**Standard and SERVO-DRIVE for AVENTOS HF**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Description</th>
<th>Notes</th>
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<tbody>
<tr>
<td>21F8000</td>
<td>Cover cap set</td>
<td>3 x Nylon, light grey, silk white, dark grey</td>
</tr>
<tr>
<td>20F6000</td>
<td>SERVO-DRIVE cover cap set</td>
<td>3 x Nylon, light grey, silk white, dark grey</td>
</tr>
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<td>21F8000</td>
<td>Cover cap set for SERVO-DRIVE</td>
<td>3 x Nylon, light grey, silk white, dark grey</td>
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<tr>
<td>20F7051</td>
<td>CLIP top 120° alu frame hinge</td>
<td>Boss: Zinc boss, Screws: Unsprung</td>
</tr>
<tr>
<td>78Z550AT</td>
<td>CLIP top alu frame centre hinge</td>
<td>Boss: Zinc boss, Screws: Unsprung</td>
</tr>
<tr>
<td>175H5A00</td>
<td>CLIP adapter plate for centre hinges</td>
<td>Symmetrical</td>
</tr>
<tr>
<td>20F7051</td>
<td>Opening angle stop</td>
<td>104° Dark grey, 83° Dust grey</td>
</tr>
<tr>
<td>BIT-PZ KS2</td>
<td>Bit PZ cross slot</td>
<td>Size 2, length 39 mm</td>
</tr>
<tr>
<td>175H3100</td>
<td>Mounting plate for CLIP top 120° hinge</td>
<td>Standard mounting plates, distance depends on the top gap</td>
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<tr>
<td>177H3100E</td>
<td>BLUM distance bumper, Ø 5 mm</td>
<td>2 x *</td>
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<tr>
<td>177H3100</td>
<td>CLIP adapter plate set for telescopic arms</td>
<td>Distance 0 mm</td>
</tr>
<tr>
<td>175H5B00</td>
<td>CLIP adapter plate for centre hinges</td>
<td>2 x *</td>
</tr>
<tr>
<td>20F7051</td>
<td>Blum transformer, flex and transformer unit housing</td>
<td>Side 86</td>
</tr>
</tbody>
</table>

*Number of hinges, see front assembly*
Narrow alu frames symmetrical

**Drilling position**

- Drilled hole for SERVO-DRIVE distribution cable, left only
  - *Drilling depth 5 mm
  - **Alternative drilling**

**Space requirement**

- KH Cabinet height

**Front assembly**

- KH Cabinet height

**Number of hinges**

3 hinges starting at cabinet width 1200 mm and/or 12 kg door weight
4 hinges starting at cabinet width 1800 mm and/or 20 kg door weight

**CLIP top 120° alu frame hinge unsprung**

- Min. gap F = 1.5 mm
  - An adjustment has to be made for frame thicknesses over 20.5 mm

**CLIP top alu frame centre hinge**

Standard and SERVO-DRIVE for AVENTOS HF
When changing material thickness, adjust the assembly dimensions accordingly.

Front assembly

* When changing material thickness, adjust the assembly dimensions accordingly.

Space requirement

FH  Front height

Opening angle stop

Without  \( Y = FH \times 0.44 + 38 \text{ mm} \)
104°  \( Y = FH \times 0.24 + 34 \text{ mm} \)
83°  \( Y = 0 \text{ mm} \)

SERVO-DRIVE switch

Blum distance bumper drilling position

* From cabinet bottom edge for fronts that protrude below the cabinet

Recommendation for aluminium frames: Consider drilling Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

Do not glue Blum distance bumper.

Blum distance bumper
Narrow alu frames asymmetrical

---

### Planning information

**Standard and SERVO-DRIVE for AVENTOS HF**

---

#### Drilling position

- Drilled hole for SERVO-DRIVE distribution cable, left only
- Drilling depth 5 mm
- ** Alternative drilling

<table>
<thead>
<tr>
<th>TKH</th>
<th>Theoretical cabinet height</th>
</tr>
</thead>
<tbody>
<tr>
<td>480–549 mm</td>
<td>TKH x 0.3 - 28 mm</td>
</tr>
<tr>
<td>550–1040 mm</td>
<td>TKH x 0.3 - 57 mm</td>
</tr>
</tbody>
</table>

#### Space requirement

- TKH: Theoretical cabinet height
- KH: Cabinet height
- FHo: Front height top
- FHu: Front height bottom
- Theoretical cabinet height (TKH) = upper front height (FHo) x 2 (including gaps)

#### Front assembly

- Min. measurement for front height bottom
  \[ X + 33 + FAu \]

<table>
<thead>
<tr>
<th>TKH</th>
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<tr>
<td>480–549 mm</td>
<td>FHo/2 + 54 mm</td>
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<td>550–1040 mm</td>
<td>FHo/2 + 31 mm</td>
</tr>
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</table>

#### CLIP top 120° alu frame hinge

- Unsprung

#### CLIP top alu frame centre hinge

- Min. gap F = 1.5 mm
- An adjustment has to be made for frame thicknesses over 20.5 mm
When changing material thickness, adjust the assembly dimensions accordingly.

**Front assembly**

- * When changing material thickness, adjust the assembly dimensions accordingly.

**Space requirement**

<table>
<thead>
<tr>
<th>Space requirement</th>
<th>Front assembly</th>
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<tbody>
<tr>
<td>FH</td>
<td></td>
</tr>
<tr>
<td>Front height</td>
<td></td>
</tr>
</tbody>
</table>

**Opening angle stop**

- Without           $Y = FH \times 0.44 + 38 \text{ mm}$
- 104°               $Y = FH \times 0.24 + 34 \text{ mm}$
- 83°                $Y = 0 \text{ mm}$

**SERVO-DRIVE switch**

**Blum distance bumper drilling position**

- From cabinet bottom edge for fronts that protrude below the cabinet

**Blum distance bumper**

- Consider drilling Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

**Planning information**

- Standard and SERVO-DRIVE for AVENTOS HF

---

**Standard**

**SERVO-DRIVE**
AVENTOS HS

Room for beautiful details

With the lift system fitting for AVENTOS HS, even large, one-part fronts appear to defy gravity by swinging up effortlessly. There is still enough space over the cabinet for a host of design options, such as beautiful details in the form of cornice or crown mouldings. As you would expect, this product is just as easy to assemble as the others and the process is almost entirely tool-free.

Watch video of the assembly and adjustment processes

www.blum.com/UHgw9
Tailored to your tastes: AVENTOS HS also allows wall cabinets to be decorated with cornice or crown mouldings.

At the heart of this fitting solution is the lift mechanism with BLUMOTION and a robust spring package.
Overview
The Blum distance bumper creates and maintains the required trigger path of 2 mm.

This cable is used to supply power to the drive unit. The maximum permitted operating power is 24 V.

The left SERVO-DRIVE cover cap is used to cover the lift mechanism, drive unit and distribution cable. To cover the cabling, the cover cap can be expanded up to an internal depth of 350 mm.

The SERVO-DRIVE switch is attached to the cabinet side at the bottom. The switch signals the drive unit via a wireless connection. The 2.4 GHz frequency is certified for international use.

The Blum transformer can be used worldwide. It converts the country-specific mains voltage to 24 V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.

The transformer is easily and securely stored in the transformer unit housing.
Order information
Standard and SERVO-DRIVE for AVENTOS HS

1 Lift mechanism set
   KH 350–525 mm 20S2A00.05 20S2B00.05 20S2C00.05
   KH 526–675 mm 20S2D00.05 20S2E00.05 20S2F00.05
   KH 676–800 mm 20S2G00.05 20S2H00.05 20S2I00.05
   Composed of:
   2 x symmetrical lift mechanisms
   10 x chipboard screws Ø 4 x 35 mm

2 Lever arm set
   Steel, nickel plated
   Composed of:
   2a 1 x lever arm left
   2b 1 x lever arm right
   2c 2 x cross stabiliser cover caps

2 Lever arm set for SERVO-DRIVE
   Steel, nickel plated
   Includes:
   2a 1 x SERVO-DRIVE lever arm left
   2b 1 x SERVO-DRIVE lever arm right
   2c 2 x cross stabiliser cover caps

3 Cover cap set
   Composed of:
   3a 1 x cover cap large left
   3b 1 x cover cap large right
   3c 2 x round cover caps

4 Front fixing bracket set
   Wooden fronts and wide aluminium frames
   Composed of:
   4a 1 x front fixing bracket set
   4b 2 x narrow alu frames
   4c 2 x wooden alu frames
   4d 2 x front fixing brackets

5 Cross stabiliser rod round
   Aluminium, Ø 16 mm
   For cutting to size, 1061 mm
   Cutting:
   LW - 129 mm
   SERVO-DRIVE: LW - 164 mm

6 SERVO-DRIVE set
   Nylon
   RAL 7037 dust grey
   Composed of:
   6a 1 x drive unit
   6b 1 x distribution cable, 1500 mm
   6c 1 x connecting node
   6d 2 x cable end protectors
   We recommend one SERVO-DRIVE drive unit per set for connected fronts!

Standard
   KH Cabinet height
   LW Inner cabinet width

SERVO-DRIVE
   AVENTOS HS
   40
### Order information

#### Standard and SERVO-DRIVE for AVENTOS HS

<table>
<thead>
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<table>
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<td>5.50–11.50</td>
<td>10.25–18.75</td>
</tr>
</tbody>
</table>

---

**Example:** KH = 600 mm, weight of front = 10 kg

Lift mechanism selection = 20S2E00.05

KH = 602 mm → 600 mm, KH = 603 mm → 605 mm

---
Planning information
Standard and SERVO-DRIVE for AVENTOS HS

- **Drilling position**
  - Drilled hole for SERVO-DRIVE distribution cable, left only
  - * Drilling depth 5 mm
  - ** Alternative drilling
  - SOB Top panel thickness

- **Front assembly**
  - Narrow alu frames
  - Wooden fronts and wide aluminium frames
  - FAo Upper front overlay
  - SFA Side front overlay
  - Wall application: Requires minimum gap 5 mm

  

Use 4 chipboard screws (609.1x00) per side for wooden fronts. Use 4 countersunk self tapping screws (660.0950) per side for wide aluminium frames.

- **Space requirement**

- **Planning narrow alu frames**

  For frame frieze width 19 mm: SFA of 11–18 mm possible

  * When changing material thickness, adjust the assembly dimensions accordingly

- **Standard**
- **SERVO-DRIVE**
Planning information
Standard and SERVO-DRIVE for AVENTOS HS

Front setting
Dimensions depend on tilt adjustment

Cross stabiliser

Cornice and crown moulding clearance

Dimensions depend on tilt adjustment

SERVO-DRIVE switch

Blum distance bumper drilling position

Cornice and crown moulding clearance

Dimensions depend on tilt adjustment

Cross stabiliser

Connecting piece

SERVO-DRIVE switch

Blum distance bumper

**SERVO-DRIVE switch**

1. 12° ±2°
2. 11° ±2°
3. 45° ±2°

Blum distance bumper drilling position

1. 8° ±2°
2. 5° ±2°
3. min 10

* From cabinet bottom edge for fronts that protrude below the cabinet

Recommendation for aluminium frames: Consider drilling Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

Do not glue Blum distance bumper.
This product is a brilliant combination of design and function. As its name suggests, the AVENTOS HL “lift up” lifts right up and out of the user’s way so that everything is always within easy reach. As a result, even special installations are possible. For example, you can integrate electrical appliances into tall cabinets.

Watch video of the assembly and adjustment processes

www.blum.com/1IVMS
Sheer beauty: With AVENTOS HL, electrical appliances disappear behind a continuous cabinet front.

At the heart of this fitting solution is the lift mechanism with BLUMOTION and a robust spring package.
## Overview

<table>
<thead>
<tr>
<th>Number</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lift mechanism</td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>Lever arm left</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Lever arm right</td>
<td></td>
</tr>
<tr>
<td>2c</td>
<td>Cross stabiliser cover cap</td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td>Cover cap, left</td>
<td>The left SERVO-DRIVE cover cap is used to cover the lift mechanism, drive unit and distribution cable. To cover the cabling, the cover cap can be expanded up to an internal depth of 350 mm.</td>
</tr>
<tr>
<td>3b</td>
<td>Cover cap right</td>
<td></td>
</tr>
<tr>
<td>3c</td>
<td>Cover cap round</td>
<td></td>
</tr>
<tr>
<td>3d</td>
<td>SERVO-DRIVE switch</td>
<td>The SERVO-DRIVE switch is attached to the cabinet side at the bottom. The switch signals the drive unit via a wireless connection. The 2.4 GHz frequency is certified for international use.</td>
</tr>
<tr>
<td>3e</td>
<td>Blum distance bumper</td>
<td>The Blum distance bumper creates and maintains the required trigger path of 2 mm.</td>
</tr>
<tr>
<td>4</td>
<td>Front fixing bracket</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Oval cross stabiliser</td>
<td></td>
</tr>
<tr>
<td>6a</td>
<td>Drive unit</td>
<td>The drive unit is attached without tools to the left lift mechanism. The same drive unit can be used for all lift mechanisms.</td>
</tr>
<tr>
<td>6b</td>
<td>Distribution cable</td>
<td>This cable is used to supply power to the drive unit. The maximum permitted operating power is 24 V.</td>
</tr>
<tr>
<td>6c</td>
<td>Connecting node + cable end protector</td>
<td>This node establishes the electrical connection between the distribution cable and the transformer. The cable end protector is inserted into the “open” end of the cable.</td>
</tr>
<tr>
<td>6d</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>Blum transformer + flex</td>
<td>The Blum transformer can be used worldwide. It converts the country-specific mains voltage to 24 V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.</td>
</tr>
<tr>
<td>8</td>
<td>Transformer unit housing</td>
<td>The transformer is easily and securely stored in the transformer unit housing.</td>
</tr>
<tr>
<td>9</td>
<td></td>
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</tbody>
</table>
A trial application is recommended when you are in a borderline area of the individual lift mechanism.

In order to select the correct lift mechanism, it is necessary to establish both the cabinet height and the weight of the front (including the handle).

5 types of lift mechanisms are enough to cover a wide range of applications.

AVENTOS HL

Order information
Standard and SERVO-DRIVE for AVENTOS HL

Lift mechanism set

1. Composed of:
   - 2 x symmetrical lift mechanisms
   - 10 x chipboard screws Ø 4 x 35 mm

2. Composed of:
   - 2a 1 x lever arm left
   - 2b 1 x lever arm right
   - 2c 2 x cross stabiliser cover caps

<table>
<thead>
<tr>
<th>Cabinet height</th>
<th>300–349 mm</th>
<th>350–399 mm</th>
<th>400–550 mm</th>
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<tr>
<td></td>
<td>11.00–20.00 kg</td>
<td>13.50–20.00 kg</td>
<td>10.50–20.00 kg</td>
<td>10.50–20.00 kg</td>
<td>8.00–14.75 kg</td>
</tr>
</tbody>
</table>

Standard

- 20L2100.05
- 20L2300.05
- 20L2500.05
- 20L2700.05
- 20L2900.05

SERVO-DRIVE

- 20L2100.06
- 20L2300.06
- 20L2500.06
- 20L2700.06
- 20L2900.06
Order information
Standard and SERVO-DRIVE for AVENTOS HL

2 Lever arm set for SERVO-DRIVE
Cabinet height 300–349 mm 21L3200.01
Cabinet height 350–399 mm 21L3500.01
Cabinet height 400–550 mm 21L3800.01
Cabinet height 450–580 mm 21L3900.01

Composed of:
2a 1 x SERVO-DRIVE lever arm left
2b 1 x lever arm right
2c 2 x cross stabiliser cover caps

3 Cover cap set
Nylon
light grey, silk white, dark grey 20L8000.01

Composed of:
3a 1 x cover cap large left
3b 1 x cover cap large right
3c 2 x round cover caps

3 Cover cap set for SERVO-DRIVE
Nylon
light grey, silk white, dark grey 21L8000

Includes:
3a 1 x SERVO-DRIVE cover cap left
3b 1 x cover cap right
3c 2 x round cover caps
3d 2 x SERVO-DRIVE switches
3e 4 x Blum distance bumpers, Ø 5 mm

4 Front fixing bracket set
Nickel plated
Wooden fronts and wide aluminium frames
Narrow alu frames 20S4200

Composed of:
2 x symmetrical front fixing brackets

5 Cross stabiliser rod oval
Aluminium
For cutting to size, 1061 mm 20Q1061UA
Cutting: LW - 129 mm
SERVO-DRIVE: LW - 164 mm
LW Inner cabinet width

6 Connecting piece set for cross stabiliser
Aluminium, Ø 16 mm
With LW of 1190 mm and up 20Q1532A
Cutting for 5: LW / 2 - 147 mm
SERVO-DRIVE: LW / 2 - 165 mm

Composed of:
1 x connecting piece
1 x fixing
2 x cross stabiliser cover caps
LW Inner cabinet width

6 SERVO-DRIVE set
Nylon
RAL 7037 dust grey 21FA000

Composed of:
6a 1 x drive unit
6b 1 x distribution cable, 1500 mm
6c 1 x connecting node
6d 2 x cable end protectors

We recommend one SERVO-DRIVE drive unit per set for connected fronts!

7, 8, 9 Bit PZ cross slot
Size 2, length 39 mm

Blum transformer, flex and transformer unit housing

Page 86
Planning narrow alu frames

- Drilling position
- Space requirement

**Front assembly**
- Wooden fronts and wide aluminium frames
- Narrow alu frames

**Planning narrow alu frames**
- SFA Side front overlay
- For frame frieze width 19 mm: SFA of 11–18 mm possible

**Planning information**

- Standard and SERVO-DRIVE for AVENTOS HL

---

1 Use 4 chipboard screws (609.1x00) per side for wooden fronts. Use 4 countersunk self tapping screws (860.0950) per side for wide aluminium frames.
Planning information
Standard and SERVO-DRIVE for AVENTOS HL

Front setting

- Lever arm set
- SOB
- Cross stabiliser

Cornice and crown moulding clearance

- Blum distance bumper drilling position

SERVO-DRIVE switch

Blum distance bumper

- Dimensions apply to lower gap = 0 mm

**Lever arm set**

<table>
<thead>
<tr>
<th>a (mm)</th>
<th>b (mm)</th>
<th>Max. c (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20L3200.06</td>
<td>114</td>
<td>257</td>
</tr>
<tr>
<td>20L3500.06</td>
<td>146</td>
<td>345</td>
</tr>
<tr>
<td>20L3800.06</td>
<td>178</td>
<td>433</td>
</tr>
<tr>
<td>20L3900.06</td>
<td>210</td>
<td>522</td>
</tr>
</tbody>
</table>

**SOB**

- 16 mm
- 18 mm
- 19 mm

**Top panel thickness**

- 28 mm
- 30 mm
- 31 mm

**SERVO-DRIVE switch**

- LW = 129 mm
- SERVO-DRIVE: LW = 165 mm

**Blum distance bumper drilling position**

- Half LW = 147 mm
- SERVO-DRIVE: Half LW = 165 mm

**Connecting piece**

- LW = Internal width

**Recommendation for aluminium frames:** Consider drilling the Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

**Do not glue Blum distance bumper.**

* From cabinet front edge for fronts that protrude below the cabinet.
This convenient lift system fitting for mid wall units requires only a small amount of space at the top. The AVENTOS HK stay lift is another product that provides inspiration thanks to its consistently high quality of motion. Handle-less fronts can be opened using SERVO-DRIVE or TIP-ON technology and without any need for hinges.

Watch video of the assembly and adjustment processes

www.blum.com/fHN1X
A single touch is all that is needed. The TIP-ON mechanical opening support system makes opening cabinets easier and more convenient than ever before.

At the heart of this fitting solution is the lift mechanism with BLUMOTION and a robust spring package.
<table>
<thead>
<tr>
<th>Number</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lift mechanism</td>
<td></td>
</tr>
<tr>
<td>2a, 2b, 2c, 2d</td>
<td>Blum distance bumper</td>
<td>The Blum distance bumper creates and maintains the required trigger path of 2 mm.</td>
</tr>
<tr>
<td>3a</td>
<td>Cover cap left</td>
<td>The left SERVO-DRIVE cover cap is used to cover the lift mechanism, drive unit and distribution cable. To cover the cabling, the cover cap can be expanded up to an internal depth of 350 mm.</td>
</tr>
<tr>
<td>3b</td>
<td>Cover cap right</td>
<td></td>
</tr>
<tr>
<td>3c</td>
<td>Cover cap small</td>
<td></td>
</tr>
<tr>
<td>3d</td>
<td>SERVO-DRIVE switch</td>
<td>The SERVO-DRIVE switch is attached to the cabinet side at the bottom. The switch signals the drive unit via a wireless connection. The 2.4 GHz frequency is certified for international use.</td>
</tr>
<tr>
<td>3e</td>
<td>Blum distance bumper</td>
<td>The Blum distance bumper creates and maintains the required trigger path of 2 mm.</td>
</tr>
<tr>
<td>4</td>
<td>Front fixing bracket</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Drive unit</td>
<td>The drive unit is attached without tools to the left lift mechanism. A special drive unit with an adapter plate is required for AVENTOS HK.</td>
</tr>
<tr>
<td>6a</td>
<td>Distribution cable</td>
<td>This cable is used to supply power to the drive unit. The max. permitted operating voltage is 24 V.</td>
</tr>
<tr>
<td>6b</td>
<td>Connecting node + cable end protector</td>
<td>This node establishes the electrical connection between the distribution cable and the transformer. The cable end protector is inserted into the “open” end of the cable.</td>
</tr>
<tr>
<td>6c, 6d</td>
<td>Blum transformer + flex</td>
<td>The Blum transformer can be used worldwide. It converts the county-specific mains voltage to 24 V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.</td>
</tr>
<tr>
<td>7</td>
<td>Transformer unit housing</td>
<td>The transformer is easily and securely stored in the transformer unit housing.</td>
</tr>
<tr>
<td>8</td>
<td>TIP-ON</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Transformer unit housing</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Catch plate</td>
<td></td>
</tr>
</tbody>
</table>
**AVENTOS HK**

4 types of lift mechanisms are enough to cover a wide range of applications.

Using the power factor, you can calculate the number of required lift mechanisms.

The power factor required depends on the weight of the front and the cabinet height.

The power factor and the door weight can be increased by 50% when a third lift mechanism is used.

---

**Order information**

*Standard and SERVO-DRIVE for AVENTOS HK*

---

**Power factor LF = cabinet height KH (mm) x front weight incl. double handle weight (kg)**

<table>
<thead>
<tr>
<th>LF 750–2500</th>
<th>LF 3200–9000</th>
</tr>
</thead>
<tbody>
<tr>
<td>20K2500.05</td>
<td>20K2900.05</td>
</tr>
<tr>
<td>20K2300.05</td>
<td>20K2700.05</td>
</tr>
<tr>
<td>20K2700.05</td>
<td>20K2700.05</td>
</tr>
<tr>
<td>LF 480–1500</td>
<td>LF 1500–4900</td>
</tr>
</tbody>
</table>

**Lift mechanism two-sided**

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

---

**Lift mechanism set**

<table>
<thead>
<tr>
<th>Power factor</th>
<th>Opening angle</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>480–1500</td>
<td>107°</td>
<td>2 x symmetrical lift mechanisms</td>
</tr>
<tr>
<td>750–2500</td>
<td>107°</td>
<td>6 x chipboard screws Ø 4 x 35 mm</td>
</tr>
<tr>
<td>1500–4900</td>
<td>107°</td>
<td>Max. door weight 18 kg for two lift mechanisms</td>
</tr>
<tr>
<td>3200–9000</td>
<td>100°</td>
<td>*) Pre-mounted opening angle stop</td>
</tr>
</tbody>
</table>

* Composed of:
  - 2 x symmetrical lift mechanisms
  - 6 x chipboard screws Ø 4 x 35 mm

* *) Pre-mounted opening angle stop

**Cover cap set**

<table>
<thead>
<tr>
<th>Composition</th>
<th>20K8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nylon</td>
<td></td>
</tr>
<tr>
<td>Light grey, silk white, dark grey</td>
<td></td>
</tr>
</tbody>
</table>

**Composed of:**

- 3a 1 x cover cap large left
- 3b 1 x cover cap large right
- 3c 2 x cover caps small

---

**Note**

We recommend a lift mechanism attached to the centre panel for wide cabinets. The reason for this is to prevent the middle of the front from sagging when open.
### Order information

**Standard and SERVO-DRIVE for AVENTOS HK**

<table>
<thead>
<tr>
<th>3</th>
<th>Cover cap set for SERVO-DRIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Cover cap set for SERVO-DRIVE</strong></td>
</tr>
<tr>
<td></td>
<td>Composed of:</td>
</tr>
<tr>
<td>3a</td>
<td>1 x SERVO-DRIVE cover cap large left</td>
</tr>
<tr>
<td>3b</td>
<td>1 x cover cap large right</td>
</tr>
<tr>
<td>3c</td>
<td>2 x cover caps small</td>
</tr>
<tr>
<td>3d</td>
<td>2 x SERVO-DRIVE switches</td>
</tr>
<tr>
<td>3e</td>
<td>4 x Blum distance bumpers, Ø 5 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5</th>
<th>SERVO-DRIVE set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>SERVO-DRIVE set</strong></td>
</tr>
<tr>
<td></td>
<td>Composed of:</td>
</tr>
<tr>
<td>6a</td>
<td>1 x drive unit</td>
</tr>
<tr>
<td>6b</td>
<td>1 x distribution cable, 1500 mm</td>
</tr>
<tr>
<td>6c</td>
<td>1 x connecting node</td>
</tr>
<tr>
<td>6d</td>
<td>2 x cable end protectors</td>
</tr>
</tbody>
</table>

We recommend two synchronised drive units for a power factor > 9000.

<table>
<thead>
<tr>
<th>4</th>
<th>Front fixing bracket set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Front fixing bracket set</strong></td>
</tr>
<tr>
<td></td>
<td>Composed of:</td>
</tr>
<tr>
<td></td>
<td>2 x symmetrical front fixing brackets</td>
</tr>
</tbody>
</table>

|   | Use 4 chipboard screws (609.1x00) per side for wooden fronts. Use 4 countersunk self tapping screws (680.0950) per side for wide aluminium frames. |

| 20S4200 | Nylon |
| 20S4200A | Wooden fronts and wide aluminium frames |

| 20K7041 | 100° Dark grey |
| 20K7011 | 75° Dust grey |

<table>
<thead>
<tr>
<th>5</th>
<th>Opening angle stop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Opening angle stop</strong></td>
</tr>
<tr>
<td></td>
<td>Composed of:</td>
</tr>
<tr>
<td></td>
<td>Size 2, length 39 mm</td>
</tr>
</tbody>
</table>

|   | BIT-PZ KS2 |

| 7, 8, 9 | Blum transformer, flex and transformer unit housing |
**Planning information**

**Standard and SERVO-DRIVE for AVENTOS HK**

- **Drilling position**
  - **SOB max 26**
  - **3 x Ø 4 x 35 mm**
  - Drilled hole for SERVO-DRIVE distribution cable, left only
  - * Drilling depth 5 mm
  - **** Alternative drilling
  - **SOB Top panel thickness**

- **Space requirement**
  - LH Internal cabinet height
  - * Min. 261 mm with visible wall hanging bracket

- **Front assembly**
  - Narrow alu frames
  - Wooden fronts and wide aluminium frames
  - Wall application: Requires minimum gap 5 mm
  - **4 x Ø 3.5 x 15 mm**
  - **SOB Top panel thickness**
  - **F Gap**
  - **SFA Side front overlay**

- **Planning narrow alu frames**
  - **3 x Ø 4 x 35 mm**
  - For frame frieze width 19 mm: SFA of 11–18 mm possible
  - * When changing material thickness, adjust the assembly dimensions accordingly

- **Standard**
- **SERVO-DRIVE**
Do not glue Blum distance bumper.

Recommendation for aluminium frames: Consider drilling the Blum distance bumper holes in the cabinet side. A trial application must be carried out when fixing the Blum distance bumper to the front.

In general, we recommend installing 4 distance bumpers near to the switch. For certain applications (high fronts, low weight), 2 distance bumpers may sometimes be sufficient. A trial application is recommended.

Planning information
Standard and SERVO-DRIVE for AVENTOS HK

<table>
<thead>
<tr>
<th>D (mm)</th>
<th>15</th>
<th>19</th>
<th>22</th>
<th>26</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (mm)</td>
<td>70</td>
<td>59</td>
<td>49</td>
<td>35</td>
<td>26</td>
</tr>
</tbody>
</table>

Opening angle stop
Without
- Y = FH x 0.29 - 15 + D
- Y = FH x 0.17 - 15 + D
- A = FH x 0.26 + 15 - D

MF Minimum gap for opening (2 mm)
Using the power factor, you can calculate the number of required lift mechanisms. The power factor required depends on the weight of the front and the cabinet height. The power factor and the door weight can be increased by 50% when a third lift mechanism is used.

4 types of lift mechanisms are enough to cover a wide range of applications.

Using the power factor, you can calculate the number of required lift mechanisms. The power factor required depends on the weight of the front and the cabinet height. The power factor and the door weight can be increased by 50% when a third lift mechanism is used.

**Power factor LF = cabinet height KH (mm) x front weight**

<table>
<thead>
<tr>
<th>Lift mechanism set</th>
<th>Power factor</th>
<th>Opening angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>20K2500T</td>
<td>480–1500</td>
<td>107°</td>
</tr>
<tr>
<td>20K2300T</td>
<td>750–2500</td>
<td>107°</td>
</tr>
<tr>
<td>20K2700T</td>
<td>1500–4900</td>
<td>107°</td>
</tr>
<tr>
<td>20K3000T</td>
<td>3200–9000</td>
<td>100°</td>
</tr>
</tbody>
</table>

**Cover cap set**

- 2a 1 x cover cap large left
- 2b 1 x cover cap large right
- 2c 2 x cover caps small

**Opening angle stop**

- 100° Dark grey 2 x 20K7041
- 75° Dust grey 2 x 20K7011

- Lift mechanism two-sided

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

- Lift mechanism two-sided

<table>
<thead>
<tr>
<th>1</th>
<th>Lift mechanism set</th>
<th>2</th>
<th>Cover cap set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power factor</td>
<td>Opening angle</td>
<td>2a</td>
</tr>
<tr>
<td>---</td>
<td>--------------</td>
<td>---------------</td>
<td>----</td>
</tr>
<tr>
<td>480–1500</td>
<td>107°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>750–2500</td>
<td>107°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1500–4900</td>
<td>107°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3200–9000</td>
<td>100°</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Pre-mounted opening angle stop

- Lift mechanism two-sided
### Front fixing bracket set

**3**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel plated</td>
<td>20S4200</td>
</tr>
<tr>
<td>Wooden fronts and wide aluminium frames</td>
<td>20S4200A</td>
</tr>
<tr>
<td>Narrow alu frames</td>
<td>20S4200A</td>
</tr>
</tbody>
</table>

**Includes:**

- 2 x symmetrical front fixing brackets

1 Use 4 chipboard screws (609.1x00) for wooden fronts. Use 4 countersunk self tapping screws (660.0950) for wide alu frames.

### TIP-ON long version set

**4b**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>For front heights over 500 mm</td>
<td>956A1004</td>
</tr>
<tr>
<td>For drilling Ø 10 x 76 mm</td>
<td>956A1201</td>
</tr>
<tr>
<td>SW, PG, TS</td>
<td>956A1501</td>
</tr>
<tr>
<td>With magnet</td>
<td>956A15E1</td>
</tr>
<tr>
<td>Output path approx. 38 mm</td>
<td></td>
</tr>
</tbody>
</table>

**Composed of:**

- 1 x TIP-ON
- 1 x screw-on catch plate
- 1 x chipboard screw 609.1500

*Note: glue-on catch plate as an alternative to screw-on version

### TIP-ON set

**4a**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>For fronts up to a height of 500 mm</td>
<td></td>
</tr>
<tr>
<td>For drilling Ø 10 x 50 mm</td>
<td>956A1501</td>
</tr>
<tr>
<td>SW, PG, TS</td>
<td>956A15E1</td>
</tr>
<tr>
<td>With magnet</td>
<td></td>
</tr>
<tr>
<td>Output path approx. 18 mm</td>
<td></td>
</tr>
</tbody>
</table>

**Composed of:**

- 1 x TIP-ON
- 1 x screw-on catch plate
- 1 x chipboard screw 609.1500

*Note: glue-on catch plate as an alternative to screw-on version

### Adapter plate

**5**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inline adapter plate</td>
<td>956.1201</td>
</tr>
<tr>
<td>Ni-L, SW, PG, TS</td>
<td>956A1201</td>
</tr>
<tr>
<td>Ni-L, SW, PG, TS long version – 20/32</td>
<td>956A1501</td>
</tr>
<tr>
<td>Cruciform adapter plate</td>
<td>956A15E1</td>
</tr>
<tr>
<td>PG long version – 37/32</td>
<td></td>
</tr>
<tr>
<td>Screws</td>
<td></td>
</tr>
<tr>
<td>EXPANDO</td>
<td></td>
</tr>
<tr>
<td>Assembly with Ø 3.5 mm or Ø 4 mm chipboard screws</td>
<td></td>
</tr>
</tbody>
</table>

### Bit PZ cross slot

**6**

<table>
<thead>
<tr>
<th>Description</th>
<th>Item Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size 2, length 39 mm</td>
<td>BIT-PZ KS2</td>
</tr>
</tbody>
</table>

* NI-L nickel finish, SW silk white, PG platinum grey, TS terra black.
**Planning information**

**TIP-ON for AVENTOS HK**

- **Drilling position**
  - [Diagram showing drilling position]
  - *Drilling depth 5 mm*
  - SOB Top panel thickness
    - 3 x \(\varnothing 4 \times 35 \text{ mm}\)

- **Space requirement**
  - [Diagram showing space requirement]
  - *Min. 261 mm with visible wall hanging bracket*

- **Front assembly**
  - [Diagram showing assembly for narrow alu frames]
  - [Diagram showing assembly for wooden fronts and wide alu frames]
  - Wall application: Requires minimum gap 5 mm
  - 4 x \(\varnothing 3.5 \times 15 \text{ mm}\)
  - SOB Top panel thickness
  - F Gap
  - SFA Side front overlay
  - Use 4 chipboard screws (609.1x00) per side for wooden fronts.
  - Use 4 countersunk self tapping screws (660.0950) per side for wide aluminium frames.

- **Planning narrow alu frames**
  - [Diagram showing planning for narrow alu frames]
  - SFA Side front overlay
  - For frame frieze width 19 mm: SFA of 11–18 mm possible
  - *When changing material thickness, adjust the assembly dimensions accordingly*

- **TIP-ON**
### Planning information

**TIP-ON for AVENTOS HK**

#### Cornice and crown moulding clearance

<table>
<thead>
<tr>
<th>D (mm)</th>
<th>15</th>
<th>19</th>
<th>22</th>
<th>26</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>X (mm)</td>
<td>70</td>
<td>59</td>
<td>49</td>
<td>35</td>
<td>26</td>
</tr>
</tbody>
</table>

Opening angle stop

- **Without**
  
  \[ Y = FH \times 0.29 - 15 + D \]

- **100°**
  
  \[ Y = FH \times 0.17 - 15 + D \]

- **75°**
  
  \[ A = FH \times 0.26 + 15 - D \]

#### Minimum gap

- **Minimum gap for opening (2 mm)**
Planning information
TIP-ON for AVENTOS HK

■ TIP-ON fixing position

<table>
<thead>
<tr>
<th>Short version</th>
<th>Long version</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

For fronts up to a height of 500 mm
For front heights over 500 mm

■ TIP-ON installation dimension

<table>
<thead>
<tr>
<th>Short version</th>
<th>Long version</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

min. 2.6 mm with glue-on catch plate / * min. 3.1 mm with screw-on catch plate

■ Adapter plate fixing position

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Diagram" /></td>
<td><img src="image6.png" alt="Diagram" /></td>
<td><img src="image7.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

■ Adapter plate installation dimension

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image8.png" alt="Diagram" /></td>
<td><img src="image9.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

* Factory setting = 2 mm
**Planning information**

**TIP-ON for AVENTOS HK**

### Adapter plate installation dimension

**Cruciform adapter plate – long version – 37/32**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.5</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>37</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td></td>
</tr>
<tr>
<td>min 1.5</td>
<td></td>
</tr>
<tr>
<td>min 1.5*</td>
<td></td>
</tr>
</tbody>
</table>

* Factory setting = 2 mm

### Screw-on catch plate planning

<table>
<thead>
<tr>
<th>Diagram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>For drilling</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>Inline adapter plate</td>
</tr>
<tr>
<td><img src="image" alt="Diagram" /></td>
<td>Cruciform adapter plate</td>
</tr>
</tbody>
</table>

* We recommend offsetting the positioning of TIP-ON by 3 mm for the screw-on catch plate.

**FAu** Lower front overlay

### TIP-ON
AVENTOS HK-S is the perfect choice for small lift systems in tall cabinets, e.g. above refrigerators. Thanks to its neat and tidy dimensions, the fitting can be perfectly integrated into small pieces of furniture, making the best possible use of the storage space.

Watch video of the assembly and adjustment processes

www.blum.com/1oMl3U
Handle-less fronts can be opened with a gentle touch using the TIP-ON technology for AVENTOS HK-S. To close the lift system, simply press shut.

At the heart of this fitting solution is the lift mechanism with BLUMOTION and a robust spring package.
Overview

AVENTOS HK-S
Overview

1. Lift mechanism
2a. Cover cap, left
2b. Cover cap right
3. Front fixing bracket
4a. TIP-ON
4b. Catch plate

☐ Standard
☒ TIP-ON
Using the power factor, you can calculate the number of required lift mechanisms. The power factor required depends on the weight of the front and the cabinet height. The power factor and the door weight can be increased by 50% when a third lift mechanism is used. The maximum cabinet height for AVENTOS HK-S is 600 mm. Taller cabinets are only permitted in conjunction with the 175H3100 steel front fixing bracket.

3 types of lift mechanisms are enough to cover a wide range of applications.

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

### Power factor LF = cabinet height KH (mm) x front weight incl. double handle weight (kg)

<table>
<thead>
<tr>
<th>LF 400–1000</th>
<th>LF 400–1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>20K2C00.02</td>
<td>20K2C00T</td>
</tr>
<tr>
<td>20K2B00.02</td>
<td>20K2E00.02</td>
</tr>
</tbody>
</table>

Lift mechanism two-sided

* LF Power factor

A trial application is recommended when you are in a borderline area of the individual lift mechanism.

### Lift mechanism set

<table>
<thead>
<tr>
<th>1</th>
<th>Lift mechanism set</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power factor</td>
</tr>
<tr>
<td>1</td>
<td>220–500</td>
</tr>
<tr>
<td>2</td>
<td>400–1000</td>
</tr>
<tr>
<td>3</td>
<td>960–2215</td>
</tr>
</tbody>
</table>

Opening angle 107°

**Composed of:**
- 2 x symmetrical lift mechanisms
- 2 x cover caps large left/right light grey, silk white, dark grey
- 6 x chipboard screws, Ø 4 x 35 mm

### Lift mechanism set

<table>
<thead>
<tr>
<th>1</th>
<th>Lift mechanism set</th>
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<tbody>
<tr>
<td></td>
<td>Power factor</td>
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<td>2</td>
<td>400–1000</td>
</tr>
<tr>
<td>3</td>
<td>960–2215</td>
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</tbody>
</table>

Opening angle 107°

**Includes:**
- 2 x symmetrical lift mechanisms
- 2 x cover caps large left/right light grey, silk white, dark grey
- 6 x chipboard screws, Ø 4 x 35 mm
Order information
Standard and TIP-ON for AVENTOS HK-S

3 Front fixing bracket

Wooden fronts and wide aluminium frames

1 Use 2 chipboard screws (609.1x00) for wooden fronts. Use 2 countersunk self tapping screws (660.0950) for wide alu frames.

2 x front fixing brackets left/right

2 Front fixing bracket set

Narrow alu frames

Composed of:

2 x front fixing brackets left/right

20K4A00A01

4 TIP-ON set

For drilling Ø 10 x 50 mm

Plastic

SW, PG, TS

Short version, length 50 mm

Includes:

1 x TIP-ON

1 x screw-on catch plate

1 x chipboard screw 609.1500

956.1004

5 Adapter plate

Inline adapter plate

Plastic, screws

Ni-L, SW, PG, TS

Short version – 20/17

956.1201

Cruciform adapter plate

PG long version – 37/32

Screws

956A1501

EXPANDO

956A15E1

Assembly with Ø 3.5 mm or Ø 4 mm chipboard screws

6 Opening angle stop

Nylon

100° Dark grey 2 x 20K7A41

75° Dust grey 2 x 20K7A11

Bit PZ cross slot

Size 2, length 39 mm

BIT-PZ KS2

Note: glue-on catch plate as an alternative to screw-on version
# Planning information

**Standard and TIP-ON for AVENTOS HK-S**

### Drilling position

- **SOB** Top panel thickness

### Fixing position

- **3 x Ø 4 x 35 mm**

### Space requirement

- `*` Min. 240 mm with visible wall hanging bracket
- Maximum cabinet height 400 mm

### Front assembly

- **Narrow alu frames**
- **Wooden fronts and wide aluminium frames**

### Planning narrow alu frames

1. **SOB** Top panel thickness
2. **F** Gap
3. **SFA** Side front overlay

- Use 2 chipboard screws (609.1x00) for wooden fronts. Use 2 countersunk self tapping screws (660.0950) for wide alu frames.

### Standard

- **TIP-ON**

*When changing material thickness, adjust the assembly dimensions accordingly*
Planning information
Standard and TIP-ON for AVENTOS HK-S

Cornice and crown moulding clearance

<table>
<thead>
<tr>
<th>X (mm)</th>
<th>70</th>
<th>59</th>
<th>49</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y (mm)</td>
<td>16</td>
<td>19</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>

Opening angle stop

- Without
  - Y = FH x 0.29 - 15 + D
- 100°
  - Y = FH x 0.17 - 15 + D
- 75°
  - A = FH x 0.26 + 15 - D

Minimum gap

- MF Minimum gap for opening (2 mm)

AVENTOS HK-S
### Planning information

**TIP-ON for AVENTOS HK-S**

**TIP-ON fixing position**

For fronts up to a height of 500 mm

**TIP-ON installation dimension**

<table>
<thead>
<tr>
<th>min 1.5</th>
<th>min 2.6</th>
<th>min 3.1</th>
</tr>
</thead>
</table>

- min. 2.6 mm with glue-on catch plate
- *min. 3.1 mm with screw-on catch plate

**Adapter plate fixing position**

<table>
<thead>
<tr>
<th>Inline adapter plate – short version – 20/17</th>
<th>Cruciform adapter plate – long version – 37/32</th>
</tr>
</thead>
</table>

**Adapter plate installation dimension**

<table>
<thead>
<tr>
<th>Inline adapter plate – short version – 20/17</th>
<th>Cruciform adapter plate – long version – 37/32</th>
</tr>
</thead>
</table>

- * Factory setting = 2 mm
- * Factory setting = 2 mm
**Planning information**

**TIP-ON for AVENTOS HK-S**

### Screw-on catch plate planning

<table>
<thead>
<tr>
<th>Screw-on catch plate planning</th>
<th>FAu</th>
<th>For drilling</th>
<th>Inline adapter plate</th>
<th>Cruciform adapter plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAu</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* We recommend offsetting the positioning of TIP-ON by 3 mm for the screw-on catch plate.

**FAu** Lower front overlay

---

**TIP-ON**
AVENTOS HK-XS is the compact fitting for small stay lifts in high and wall cabinets. Thanks to the narrow style, AVENTOS HK-XS offers a high level of design freedom. They close silently and effortlessly in combination with CLIP top BLUMOTION hinges.

Watch video of the assembly and adjustment processes

www.blum.com/Z3VmS
High quality of motion
The variable stop allows the lift system to remain in any desired position and always within easy reach.

Numerous possibilities
Whether thick wooden fronts with wide or narrow aluminium frames, the fixing positions always remain the same. This allows different materials and front thicknesses to be easily integrated.

Proven Blum quality
The lift mechanism with a robust spring package is the core element of the compact fitting. The AVENTOS HK-XS proves itself in this way with high stability and durability. High quality is ensured for the lifetime of the furniture.
1 Lift mechanism
2a Front fixing bracket
2b Cabinet fixing
3 Hinge
4a TIP-ON
4b Catch plate
AVENTOS HK-XS

Order specification

- Well suited for top wall cabinets
- Cabinet height from 240 mm to 600 mm
- Interior depth minimum 125 mm
- Closes silently and effortlessly in conjunction with CLIP top BLUMOTION hinges
- Can be combined with TIP-ON to open handle-less fronts
- Well-balanced quality of motion due to light operating forces, a variable stop and BLUMOTION
- Simple, virtually tool-free assembly and easy adjustment
- Symmetrical lift mechanism – can be used on one or both sides
- High-quality design

Power factor LF = cabinet height KH (mm) x door weight incl. double handle weight (kg)

<table>
<thead>
<tr>
<th>Standard</th>
<th>TIP-ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF 500–1500</td>
<td>LF 500–1200</td>
</tr>
<tr>
<td>20K1301</td>
<td>20K1301T</td>
</tr>
<tr>
<td>LF 200–1000</td>
<td>LF 180–800</td>
</tr>
<tr>
<td>20K1501</td>
<td>LF 800–1600</td>
</tr>
</tbody>
</table>

Lift mechanism one-sided LF Power factor

Note: the power factor is doubled when used on both sides.
A trial application is recommended when you are in a borderline area for the individual lift mechanism.

<table>
<thead>
<tr>
<th>1</th>
<th>Symmetrical lift mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power factor</td>
</tr>
<tr>
<td>200–1000</td>
<td>20K1101</td>
</tr>
<tr>
<td>500–1500</td>
<td>20K1301</td>
</tr>
<tr>
<td>800–1800</td>
<td>20K1501</td>
</tr>
</tbody>
</table>

105° opening angle*

* For hinges with smaller opening angles, these are limited by the hinges.
### Order specification

#### 2 Cabinet fixing

- **Nickel plated steel**
- Screws: 20K5101
- EXPANDO: 20K51E1

#### 3 Front fixing bracket

- **Nickel plated steel**
- Screws: 20K4101
- EXPANDO: 20K41E1
- Narrow aluminium frames: 20K4101A

#### 4 Hinge recommendation

- **CLIP top BLUMOTION 110°**
  - Screws: With spring: 2 x² 71B3550
  - INSERTA: With spring: 2 x² 71B3590

- **CLIP top 110° for TIP-ON**
  - Screws: Unsprung: 2 x² 70T3550.TL
  - INSERTA: Unsprung: 2 x² 70T3590.TL

#### 5 Mounting plate recommendation

- Standard mounting plates, distance depends on the top gap
  - **Fixing**
  - **Spacing**
  - Screws: 0 mm 2 x² 175H3100
  - EXPANDO: 0 mm 2 x² 177H3100E

#### 6 TIP-ON set

- For drilling Ø 10 x 50 mm
- **Plastic**
- **Sw, PG, TS**
- Short version, length 50 mm: 955.1004

  **Consisting of:**
  - **6a** 1 x TIP-ON
  - **6b** 1 x screw-on catch plate
  - 1 x chipboard screw 609.1500

#### 7 Horizontal adapter plate

- **Plastic, screws**
- Ni-L, SW, PG, TS
- Short version – 20/17

---

1. Use 2 chipboard screws (609.1x00) for wooden fronts. Use 2 countersunk self-tapping screws (660.0950) for wide aluminium frames.
2. Alternatively, use the CLIP top BLUMOTION hinges, 95° profile door hinges, 95° aluminium frame hinges or the CLIP top hinges 107°, 110°, 95° profile door hinges, 95° aluminium frame hinges in combination with clip-on BLUMOTION 973A or unsprung (TIP ON). See Blum catalogue.
3. Ni-L nickel finish, SW silk white, PG platinum grey, TS terra black.
4. Note: glue-on catch plate as an alternative to screw-on version.
5. Number of hinges, see front assembly
## Planning

### Drilling position

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Internal cabinet height</td>
</tr>
<tr>
<td>D</td>
<td>Mounting plate spacing</td>
</tr>
<tr>
<td>K</td>
<td>Hinge crank</td>
</tr>
<tr>
<td>SOB</td>
<td>Top panel thickness</td>
</tr>
</tbody>
</table>

H = 137 + D + K + SOB

- D: Mounting plate spacing
- K: Hinge crank
  - Horizontal hinge arm 0 mm
  - Cranked hinge arm 9.5 mm
  - Double cranked hinge arm 18 mm
- SOB: Top panel thickness

### Space requirement

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LH</td>
<td>Internal cabinet height</td>
</tr>
<tr>
<td>min</td>
<td>Minimum value</td>
</tr>
</tbody>
</table>

LH: Internal cabinet height

* min. 200 mm with visible wall hanging bracket

### Front assembly

- Narrow aluminium frames
- Wooden fronts and wide aluminium frames

**Number of hinges**
- 3 hinges starting at cabinet width 900 mm and/or power factor 1800
- 4 hinges starting at cabinet width 1200 mm and/or power factor 2700

- Use 2 chipboard screws (609.1x00) for wooden fronts.
- Use 2 countersunk self-tapping screws (660.0950) for wide aluminium frames.

### Planning for narrow aluminium frames

- For frame frieze width 19 mm: SFA of 11–18 mm possible

**SFA**: Side front overlay

**R**: Radius

* When changing material thickness, adjust the assembly dimensions accordingly.

### Special drilling positions for a minimum internal depth of 100 mm

To ensure optimal motion, use standard drilling positions for a minimum internal depth of 125 mm
### Planning

#### AVENTOS HK-XS

**Space requirement**

![Diagram of space requirement](image)

- **Y** = (FH – a) x 0.3
- **FD** (mm)  16  19  22  24
- **a** (mm)  45  34  23  15
- **FD** Front thickness
- **FH** Front height

**Cornice and crown moulding clearance**

![Diagram of cornice and crown moulding clearance](image)

- **FD** (mm)  16  19  22  24
- **X** (mm)  45  34  23  15
- **FD** Front thickness

**Minimum gap**

- **MFu** Minimum gap at the bottom (1.5 mm)
- **MFe** Minimum gap at the top depending on hinge used – see Blum catalogue

**Minimum gap (F) for fronts with a front radius (R = 1 mm)**

Based on the factory setting for CLIP top BLUMOTION 110°/ CLIP top 110°

<table>
<thead>
<tr>
<th>Front thickness FD</th>
<th>16</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
<th>28</th>
<th>30</th>
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</thead>
<tbody>
<tr>
<td>3</td>
<td>0.5</td>
<td>0.8</td>
<td>1.0</td>
<td>1.2</td>
<td>1.5</td>
<td>1.8</td>
<td>2.2</td>
<td>2.7</td>
<td>3.5</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0.5</td>
<td>0.8</td>
<td>1.0</td>
<td>1.2</td>
<td>1.4</td>
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<td>2.0</td>
<td>2.5</td>
<td>3.1</td>
<td>3.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0.5</td>
<td>0.8</td>
<td>0.9</td>
<td>1.2</td>
<td>1.4</td>
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<td>2.0</td>
<td>2.4</td>
<td>2.9</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>0.5</td>
<td>0.8</td>
<td>0.9</td>
<td>1.2</td>
<td>1.3</td>
<td>1.6</td>
<td>1.9</td>
<td>2.3</td>
<td>2.7</td>
<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>0.5</td>
<td>0.8</td>
<td>0.9</td>
<td>1.1</td>
<td>1.3</td>
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<td>2.2</td>
<td>2.6</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Additional for + 2 mm side adjustment
  - +0.2  +0.4  +0.4  +0.5  +0.5  +0.5  +0.5  +0.5

**CLIP top BLUMOTION 110°/ CLIP top 110°**

- **F** Gap
- **FA** Front overlay
- **TB** Drilling distance

**CLIP top BLUMOTION 110°/ CLIP top 110°**

- **Front overlay FA**
  - **TB** Drilling distance

<table>
<thead>
<tr>
<th>TB</th>
<th>0</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
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<td></td>
<td>5</td>
<td>6</td>
<td>7</td>
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<td>10</td>
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<td>16</td>
<td>17</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- | 0   | 3   | 4   | 5   | 6   | 7   |
<table>
<thead>
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<th></th>
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</thead>
<tbody>
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<td>18</td>
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</tbody>
</table>
Fixing position

<table>
<thead>
<tr>
<th>TIP-ON short version</th>
<th>Inline adapter plate – short version – 20/17</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
</tbody>
</table>

Installation dimensions

<table>
<thead>
<tr>
<th>TIP-ON short version</th>
<th>Inline adapter plate – short version – 20/17</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
</tbody>
</table>

- min. 2.6 mm with glue-on catch plate
- * min. 3.1 mm with screw-on catch plate
- Factory setting = 2 mm

Screw-on catch plate planning

<table>
<thead>
<tr>
<th><img src="image5" alt="Diagram" /></th>
<th><img src="image6" alt="Diagram" /></th>
<th><img src="image7" alt="Diagram" /></th>
</tr>
</thead>
</table>

- FAu: Lower front overlay
- * We recommend offsetting the positioning of TIP-ON by 3 mm for the screw-on catch plate.
## Assembly devices

### Front assembly

<table>
<thead>
<tr>
<th>Front fixing bracket</th>
<th>Hinges</th>
<th>Hinges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal drilling template</td>
<td>ECODRILL</td>
<td>Drilling template for hinges</td>
</tr>
<tr>
<td>ZML.0040</td>
<td>M31.1000</td>
<td>Ø 8 mm / Ø 2.5 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ø 2.5 mm</td>
</tr>
</tbody>
</table>

### Cabinet assembly

<table>
<thead>
<tr>
<th>Cabinet assembly</th>
<th>Mounting plate</th>
<th>TIP-ON assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal-single template</td>
<td>Template</td>
<td>TIP-ON drilling template</td>
</tr>
<tr>
<td>65.1051.02</td>
<td>65.5300</td>
<td>For drilling</td>
</tr>
<tr>
<td>Can also be used for cabinet fixing</td>
<td></td>
<td>Can also be used for TIP-ON for AVENTOS</td>
</tr>
</tbody>
</table>
AVENTOS

Order information
Blum transformer and accessories

6c, 6d Connecting node + cable end protector
- Black

6b, 6d Distribution cable for cutting to size + cable end protector
- Electrical cable length 8 m with 5 pieces cable end protector

7 Blum transformer 24 W
- Language packages – installation instructions and instruction leaflet
  - A DE, EN, FR, IT, NL
  - B DA, EN, FI, NO, SV
  - C EL, EN, HR, SL, SR, TR
  - D EN, ES, FR, IT, PT
  - E CS, HU, SK, PL
  - F BG, ET, LT, LV, RO, RU
  - G EN, ES, FR, (US, CA)
  - H EN, ZH

8 Transformer unit housing for panel fixing
- White grey

9 Flex
- Countries
  - Flex Europe
  - Flex CH
  - Flex US, CA
  - Flex JP
  - Flex BR
  - Flex UK
  - Flex DK
  - Flex IL
  - Flex AU
  - Flex CN
  - Flex AR
  - Flex IN
  - Flex CL
  - Flex TW
  - Flex ZA
  - Flex Europe without plug

Cable holder
- Using the cable holder, the distribution cable can be easily managed to keep everything tidy and safe.
- White

12-Watt Blum plug-in transformer including flex (1120 mm)*; alternative to 7, 8, 9: For single applications only
- Power supply system adapter (x)
  - E DE, EN, FR, IT, NL
  - B DA, EN, FI, NO, SV
  - K EL, EN, HR, SL, SR, TR
  - R EN, ES, FR, IT, PT
- Language package (y)
  - A CS, HU, SK, PL
  - B BG, ET, LT, LV, RO, RU
  - C EN, ES, FR, (US, CA)
  - D EN, ZH

* With the distribution cable, the total length can be extended to a max. of 2000 mm.
Space requirement and safety distance, Blum transformer unit housing and 12-Watt Blum plug-in transformer

A safety distance of 30 mm must be maintained for air circulation (see graphic); otherwise, there is a risk that the Blum transformer or plug-in transformer could overheat.

Assembly on the top panel

Recommended

- Distribution cable for cutting to size
- Connecting node
- Cable end protector
- Blum transformer
- Transformer unit housing
- Flex

Optional

Cabinet front edge to centre of drilled hole
- HF: 167 mm
- HS: 69 or 167 mm
- HL: 74.5 or 167 mm
- HK: 167 mm

Only one Blum transformer can be connected to each distribution cable.
Assembly
Blum transformer and accessories

Cable diagram for two cabinets

Transformer unit housing

Pull-out stop

Do not damage piercing pins.
Assembly in combination with SERVO-DRIVE for box and runner systems

- Distribution cable for cutting to size
- Connecting node
- Cable end protector
- Blum transformer
- Transformer unit housing
- Flex

Only one Blum transformer can be connected to each distribution cable.
Overview of functions
SERVO-DRIVE for AVENTOS

Start-up

A Activating the SERVO-DRIVE switch

B Starting reference run

Deactivation

E Reset motion

F Reset wireless

Additional features

C Activating synchronisation

D Activating collision avoidance

Button layout

1 Drive unit
2 <Reset Motion> button
3 Motion LED
4 <SWITCH> button
5 <SYNC> button
6 <COLL> button
7 <Reset Wireless> button
8 Wireless LED
9 SERVO-DRIVE switch
### Activating the SERVO-DRIVE switch

Setting up the wireless connection between the SERVO-DRIVE switch and the drive unit. Each SERVO-DRIVE switch can be assigned to one drive unit only.

1. Press the `<SWITCH>` button until the LED flashes.
2. Press the SERVO-DRIVE switch until the LED lights up continuously.
3. Repeat procedure 1–2 for additional SERVO-DRIVE switches in the cabinet.

### Additional features

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<td>C Activating synchronisation</td>
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<td>D Activating collision avoidance</td>
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### Starting reference run

The drive unit recognises the required parameters using the reference run.

1. Reference run is required: LED flashes.
2. Close the front manually.
4. Front opens and closes 2x automatically: Under no circumstances should you try to manually interrupt or stop the process.

If the reference run is interrupted, it should be reset – see Reset Motion 1. Restart reference run.
Activating synchronisation

Up to three drive units can be synchronised so that they move simultaneously. This function is required for several cabinets with a uniform front.

1. Press the <SYNC> button on the 1st drive unit until the LED flashes.
2. Repeat procedure C 1–2 for all additional drive units.
3. Press <SYNC> on the 2nd drive unit until the LEDs on both synchronised drive units light up continuously.

Activating collision avoidance

To avoid the collision of fronts, drive units (max. 6) are linked so that only one front can be opened at a time. A front is prevented from opening as long as a linked front remains open.

1. Press the <COLL> button on the 1st drive unit until the LED flashes.
2. Close the front manually.
3. 2. Open the front manually.
4. Press <COLL> on the 2nd drive unit until the LED lights up continuously.
5. Repeat procedure D 1–4 for all additional cabinets.
**E Reset motion**

Resets the reference run and enables a new reference run to be started.

Press the «Reset Motion» button using a pen (at least 3 seconds) until the LED flashes quickly.

**F Reset wireless**

Deactivates all functions:
All active SERVO-DRIVE switches, synchronisations and collision avoidance settings for the respective drive unit are deleted.

Press the «Reset Wireless» button using a pen (at least 3 seconds) until the LED flashes quickly.

<table>
<thead>
<tr>
<th>Motion LED signals</th>
<th>Wireless LED signals</th>
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<tr>
<td><img src="image" alt="Flashes orange" /></td>
<td><img src="image" alt="Flashes green" /></td>
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<tr>
<td>Reference run is required</td>
<td>Activation mode</td>
</tr>
<tr>
<td><img src="image" alt="Lights orange continuously" /></td>
<td><img src="image" alt="Lights up green continuously" /></td>
</tr>
<tr>
<td>Power available</td>
<td>Activation confirmation</td>
</tr>
<tr>
<td><img src="image" alt="Operating mode display" /></td>
<td><img src="image" alt="Reference run successfully completed" /></td>
</tr>
<tr>
<td><img src="image" alt="Reference run successfully completed" /></td>
<td><img src="image" alt="Flashes green quickly" /></td>
</tr>
<tr>
<td><img src="image" alt="Flashes orange quickly" /></td>
<td><img src="image" alt="Deactivation confirmation" /></td>
</tr>
<tr>
<td><img src="image" alt="Reset Motion confirmation" /></td>
<td><img src="image" alt="Lights red continuously" /></td>
</tr>
<tr>
<td><img src="image" alt="Last process was not completed successfully" /></td>
<td></td>
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The company Blum

Founded over 60 years ago by Julius Blum, Blum is a family-owned company that operates on an international scale. Its strategic business segments include lift, hinge and pull-out systems. All our product developments focus on perfecting motion.

www.blum.com
Innovations
To support customers with innovative fittings solutions and secure long-term success for the company, we need to consistently invest in research and development, in plants and facilities and in employee training. With more than 2,600 patents worldwide, Blum is one of Austria’s most innovative companies.

Environment
At Blum, we believe that responsible ecological behaviour has long-term economic benefits. The longevity of products is just one of many important aspects. Other important measures include the use of environmentally-friendly processes, the intelligent use of materials and prudent energy management.

DYNAMIC SPACE
Good workflows, optimum use of storage space and top quality motion are important features of a practical kitchen. Blum’s ideas for practical kitchens are designed to bring function, convenience and ergonomics to furniture interiors.

Blum in Austria and around the world
The company has seven plants in Vorarlberg, Austria, additional production sites in Poland, the USA and Brazil and 28 subsidiaries/representative offices. Blum supplies more than 120 markets. The Blum Group employs 6,900 people in total, 5,300 of whom work in Vorarlberg.

Quality
Blum’s comprehensive concept of quality does not only apply to products. Services and collaboration with customers and partners should also meet the same quality requirements.

Global customer benefits
“Whether manufacturer, distributor, fitter or kitchen user – everybody should personally enjoy the benefits of Blum products” – that is Blum’s philosophy on global customer benefits.

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