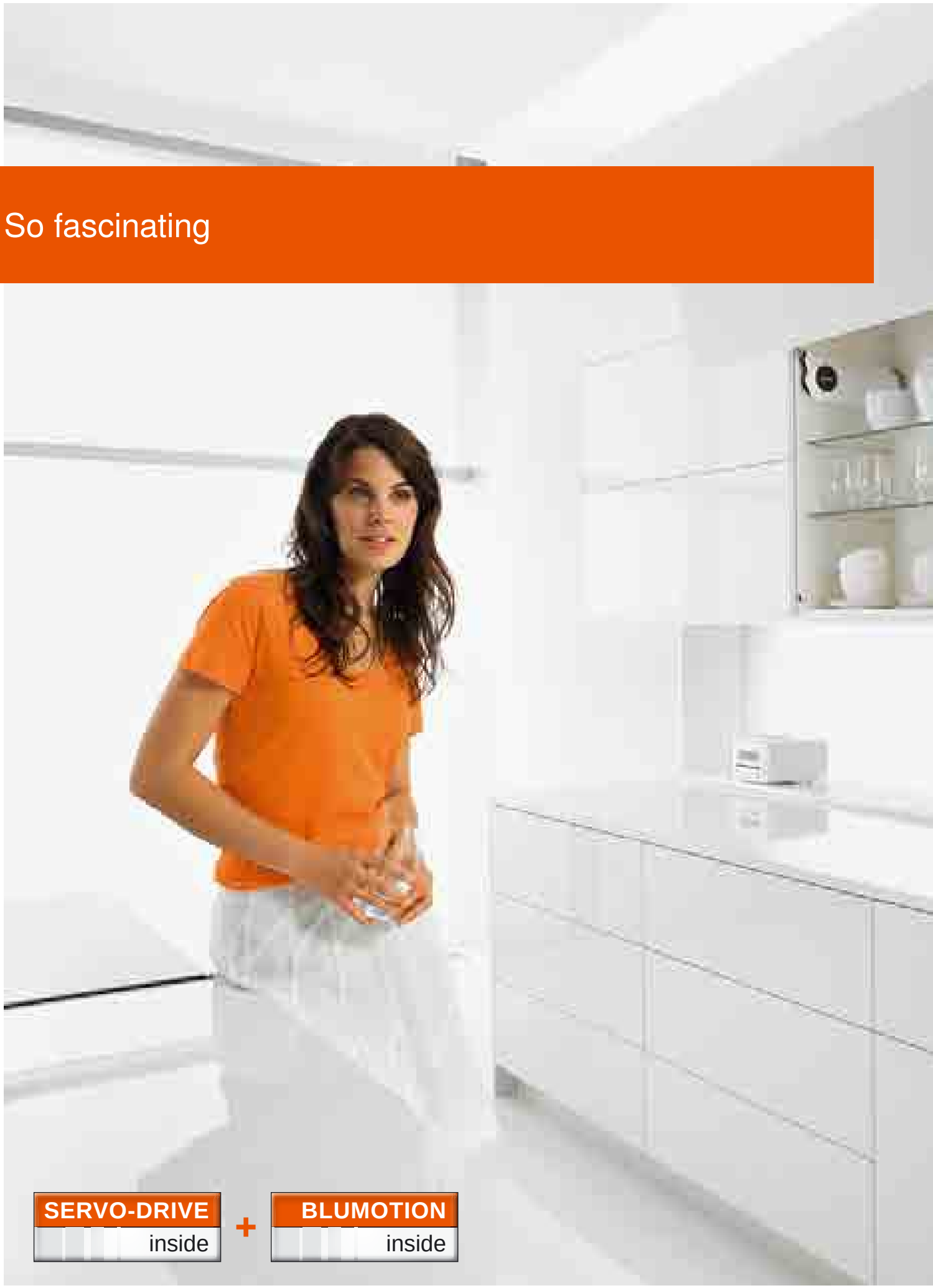
SERVO-DRIVE for AVENTOS

Opens, closes, automatically

connect.blum.com

Perfecting motion blum®

So fascinating



New effortless opening and closing for lift systems

Lift systems open with just a light touch – and then close again with the press of a button: An Inspiring luxury you can use to impress your customers, thanks to SERVO-DRIVE for AVENTOS, our new electrical motion support system for lift systems.

Discover for yourself how easy the opening and closing of lift systems can be, along with the function and design opportunities available to you with SERVO-DRIVE for AVENTOS.

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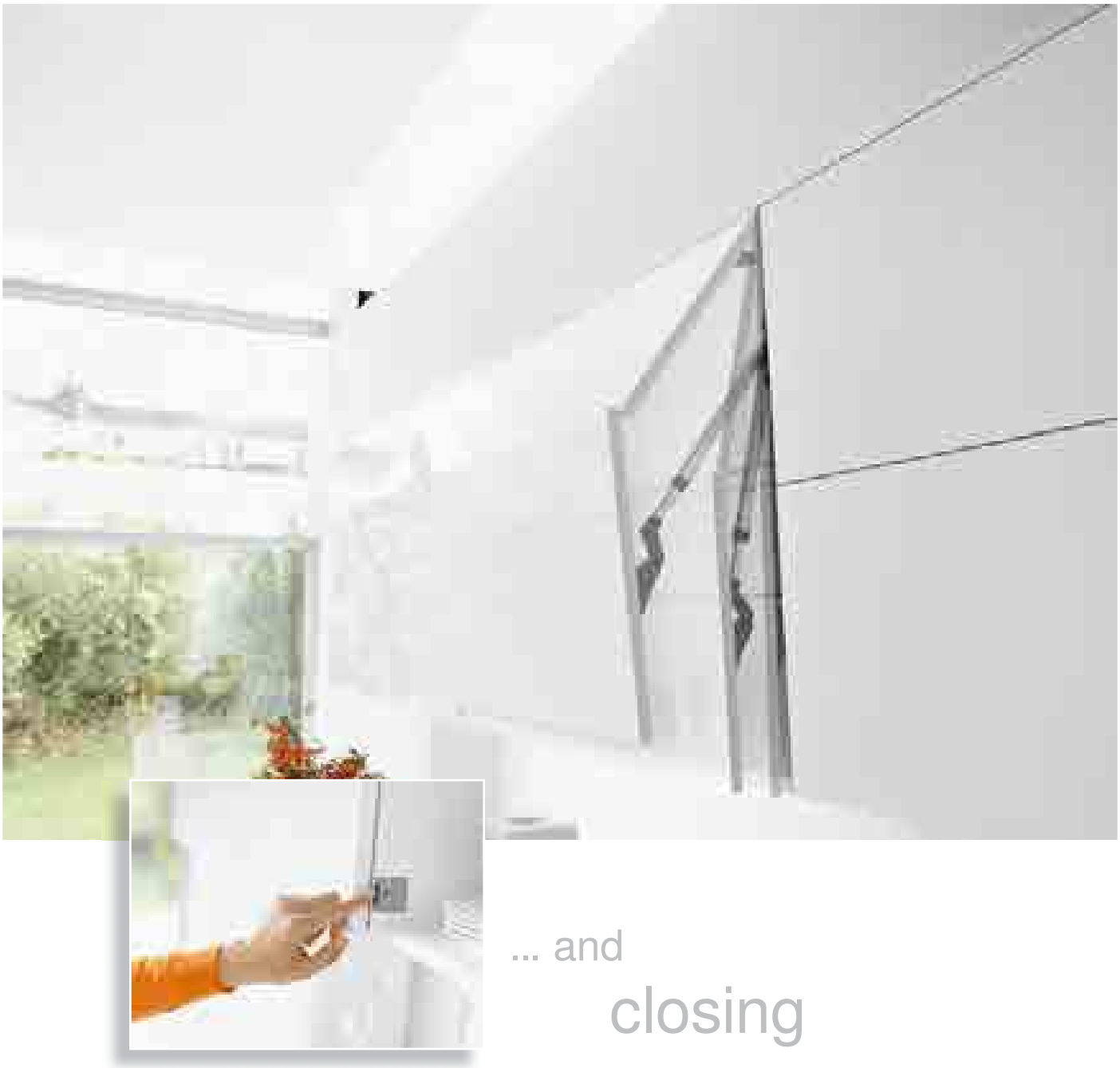
So easy

Effortless opening ...

A light touch on the front using your hand or elbow is all that's required to open lift systems with SERVO-DRIVE for AVENTOS.

Even large and heavy fronts open effortlessly with gravity-defying ease. For the kitchen user, this means easy access to the cabinet interior.



... and

closing

Comfortable and easy closing: Provided by the easy to reach switch on the cabinet side.

This enables lift systems to close easily and ergonomically. The proven BLUMOTION function also ensures silent and effortless closing.

So user friendly

The complete focus
is on the kitchen user

Completely safe even when closing

Even when the switch has just been pressed for closing – the closing procedure is halted immediately if the kitchen user again reaches into the cabinet and/or an object is placed between the cabinet and the front.

Completely under control

Even though lift systems open and close automatically: The kitchen user can interrupt the motion at any time. In addition, lift systems with SERVO-DRIVE for AVENTOS can also be easily opened and closed manually at any time, e.g. when there is a power failure.

Completely synchronised

Up to three drive units can be set for synchronised motion. Synchronisation is ideal for several cabinets that share one wide frontal.

No danger of collision

For corner solutions, it is especially important that lift system fronts do not open simultaneously.
Thanks to the “collision avoidance” function, you can set drive units so that only one front opens at a time.

So many opportunities

SERVO-DRIVE for AVENTOS –
one system for all lift variants

SERVO-DRIVE for AVENTOS can be used with all four Blum lift system types: the bi-fold lift system, up & over lift system, lift up and stay lift. For inspirational ease-of-use for every lift system.

AVENTOS HF for bi-fold lift systems

- The space requirement above the cabinet is minimised thanks to the two-part front.
- AVENTOS HF can also be used with fronts of different heights.

AVENTOS HS for up & over lift systems

- AVENTOS HS is ideal for large-area, single fronts.
- The space requirement above the cabinet is minimised due to the swivel motion.
- This system allows use of cornice or Crown moulding if desired.

Comfortable access

Because lift systems open upwards, this provides totally unhindered access to the cabinet interior.

Good accessibility

Pressing the easily accessible switch on the cabinet side is all that's required to close the lift system.

Many design options

Handle-less furniture, extra-wide fronts, Fronts constructed from heavy materials: SERVO-DRIVE for AVENTOS opens up many design opportunities for lift systems because opening and closing is always simple and comfortable.

Designpreis Deutschland 2010
NOMINEE

reddot design award
winner 2009

interzum award:
intelligent
material & design
2009

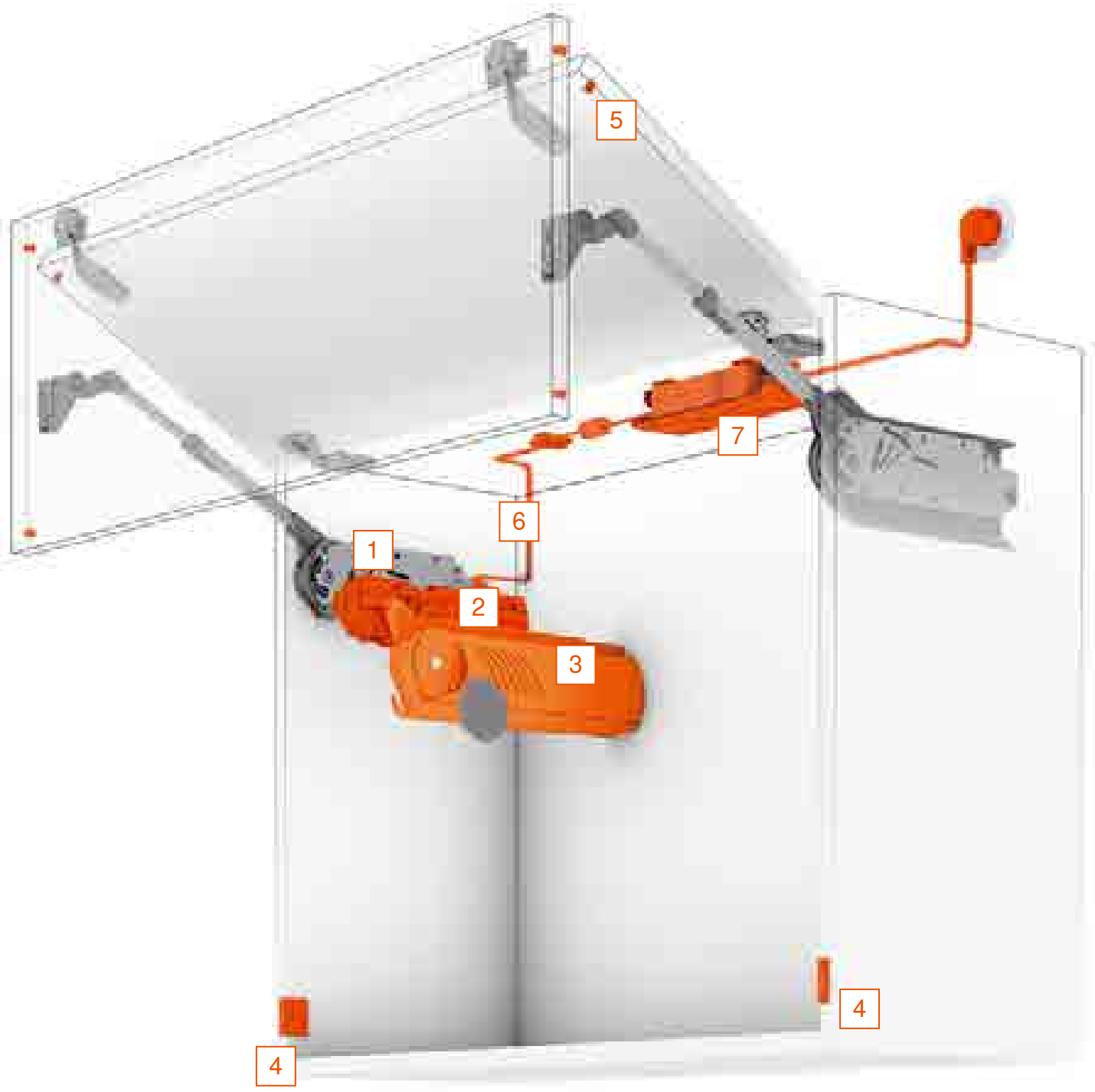
AVENTOS HL for lift ups

- AVENTOS HL lift systems are ideal for mid height units, or tall units with further fronts above.
- AVENTOS HL is well-suited for small-area, single fronts.

AVENTOS HK for stay lifts (schedule upon request)

- Ideal solution for wall cabinets with low frontal heights.
- Only a small amount of space is required above the cabinet due to lift system action.
- No hinges are required.

So well-coordinated with each other



SERVO-DRIVE – The individual components

After lift mechanism installation and adjustment, SERVO-DRIVE components are attached to the lift mechanism and cabinet.

1 **Lift mechanism**
- SERVO-DRIVE-compatible lift mechanism with elongated hole for tool-free attachment to the drive unit

2 **Drive unit**
- For assembly to the left lift mechanism
- Tool-free clip-on
- The same drive unit for all lift mechanisms (HF, HS, HL)
- Several practical setting options, e.g. synchronisation and collision avoidance

3 **Cover cap**
- For covering the lift mechanism and drive unit and cabling
- Extendable to an internal depth of 350 mm to cover the distribution cable

4 **SERVO-DRIVE switch**
- Attaches to both cabinet sides
- Wireless connection to the drive unit
- Frequency 2.4 GHz
- Certified* for use worldwide

5 **Distance bumper**
- Existing SERVO-DRIVE bumpers ensure the required trigger path of 2 mm

6 **Cabling**
- With proven cabling components such as the SERVO-DRIVE distribution cable, connecting node, cable end protectors
- For easy, practically tool-free cabling

7 **Transformer for power supply**
- Proven SERVO-DRIVE transformer

Transformer unit housing
- For secure fixing
- Enables necessary air circulation

i **Additional components and updates for AVENTOS HS and HL**
- Cross stabiliser (new length and configuration)
- Modified lever shape
- Modified fixing position for the lift mechanism

* Available 2010

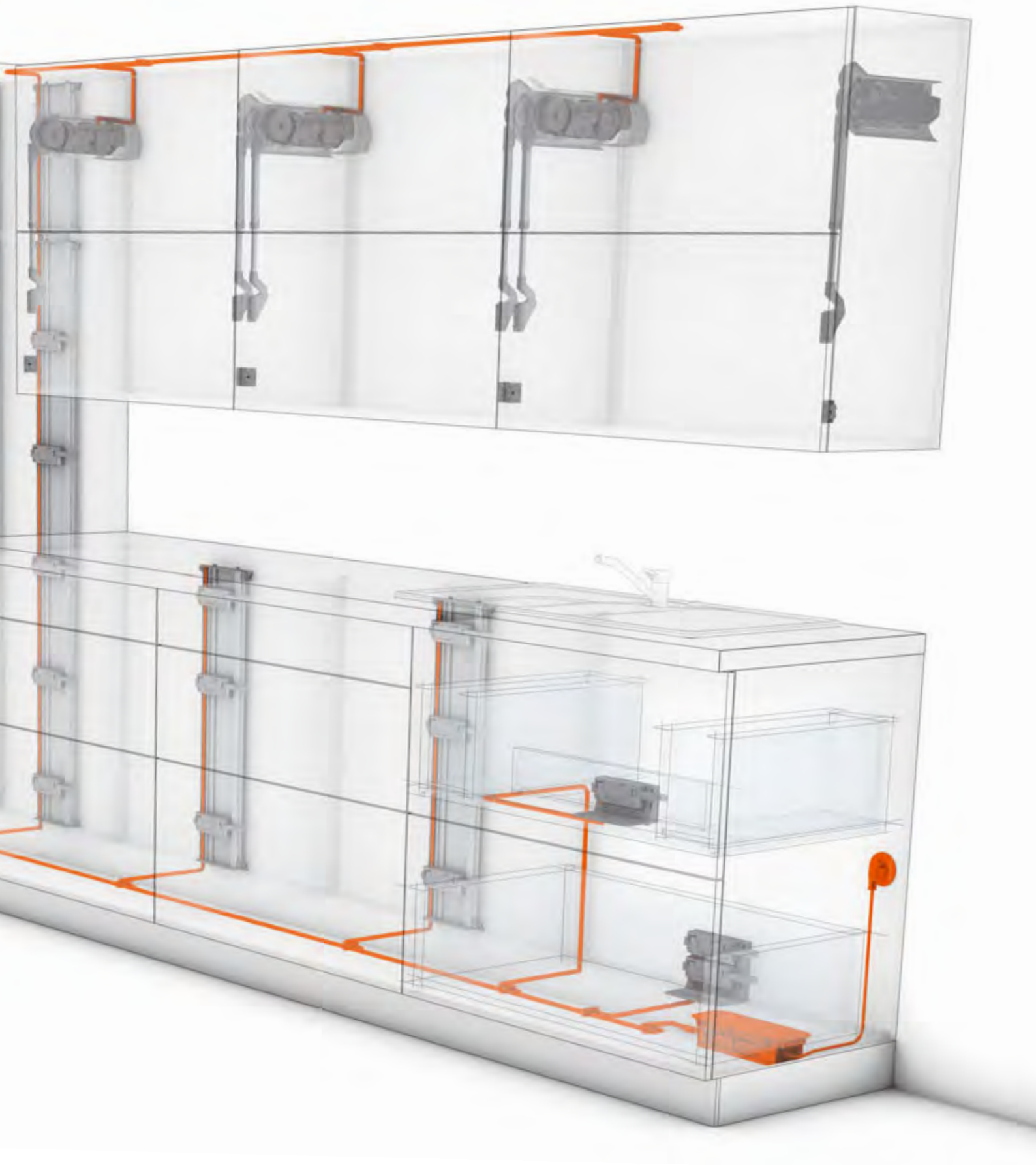
High level of standardisation

SERVO-DRIVE – one system for the entire kitchen

With SERVO-DRIVE, you will experience trouble free opening throughout the entire kitchen. Whether it's the base or wall cabinet – a single system automatically opens pull-outs & lift systems. Once installed, kitchen users will never again want to do without this level of comfort.

With SERVO-DRIVE for TANDEMBOX and TANDEM, there is also an electrical opening support system for pull-outs and drawers. The individual cabling components for the base and wall cabinet are the same. One transformer is all that's required for power supply to the entire kitchen.

SERVO-DRIVE can be deactivated easily – preferably via a switched outlet. This would be practical when cleaning fronts, for example.



So easy

Icon image

Drilling made easy – with the drilling template for the SERVO-DRIVE switch

A ¾ drilling is required for the SERVO-DRIVE switch – either on the unattached or constructed cabinet side.

Assembly – practically tool-free

Most components can be attached tool-free, e.g. the drive unit, distance bumper or SERVO-DRIVE switch.

From assembly through to start-up

Cabling – quick and easy

The piercing technology makes cabling very easy. A few steps is all that's required to make the electrical connections. The cabling is very flexible, and can easily be customised to individual requirements.

Switch installation – fast & simple

The SERVO-DRIVE switch is attached to the cabinet side. Installation is very quick, simply locate switch in pre-drilled hole & apply hand pressure to inert.

Start-up – takes just a few seconds

SERVO-DRIVE is easy to set up and operate thanks to the clearly defined function keys on the drive unit.

> When is the AVENTOS lift mechanism set correctly?

The lift mechanism must be set correctly in order to ensure optimal SERVO-DRIVE for AVENTOS functionality. If the lift system stops in any position when it is let go, then the lift mechanism is properly adjusted.

For more information, please see our complete AVENTOS brochure.

So quickly answered

Frequently asked questions

How is this different from the regular AVENTOS lift mechanism?
For the SERVO-DRIVE-compatible version, the lift mechanism has an additional elongated hole in which the drive unit can be inserted or clipped on during assembly.

Can I retrofit SERVO-DRIVE for AVENTOS?
Yes, however you do require additional components depending on the lift system type:
- SERVO-DRIVE-compatible lift mechanism
- Special cover cap left (adjustable)

Additional for AVENTOS HS and HL:
- Special lever arms
- Shorter cross stabiliser rod
- Modified stabiliser adapter

Do I need different drive units for different lift system types?
No. You can use the same drive unit for the following AVENTOS lift systems: the bi-fold lift system, up & over lift system and lift up.

Can I synchronise drive units?
Yes. Up to three drive units can be set so that they move simultaneously.

Can I use asymmetrical fronts or fronts with aluminium frames?
Yes, these are both possible.

Can SERVO-DRIVE for AVENTOS also be used with lift systems with handles?
Yes. You can use SERVO-DRIVE for AVENTOS with lift systems with or without handles. The handle is purely a design element in this case. Pulling the handle does not trigger the motion support system because SERVO-DRIVE for AVENTOS is only activated by a light touch on the front. In any event, the lift system can be opened manually at any time.

Can I attached an opening angle stop?
Yes, this is possible – however only after drive unit installation and before start-up.

Where are the SERVO-DRIVE switches located?
The SERVO-DRIVE switches are attached to the cabinet sides at the bottom. This makes them easy to reach for the kitchen user. This position also ensures that SERVO-DRIVE for AVENTOS functions optimally.

How does my customer know when the battery has to be replaced?
The SERVO-DRIVE switch contains a battery display. It flashes red when the battery needs to be replaced. Battery replacement is very simple. All you need is a common button cell battery (type CR 2032).

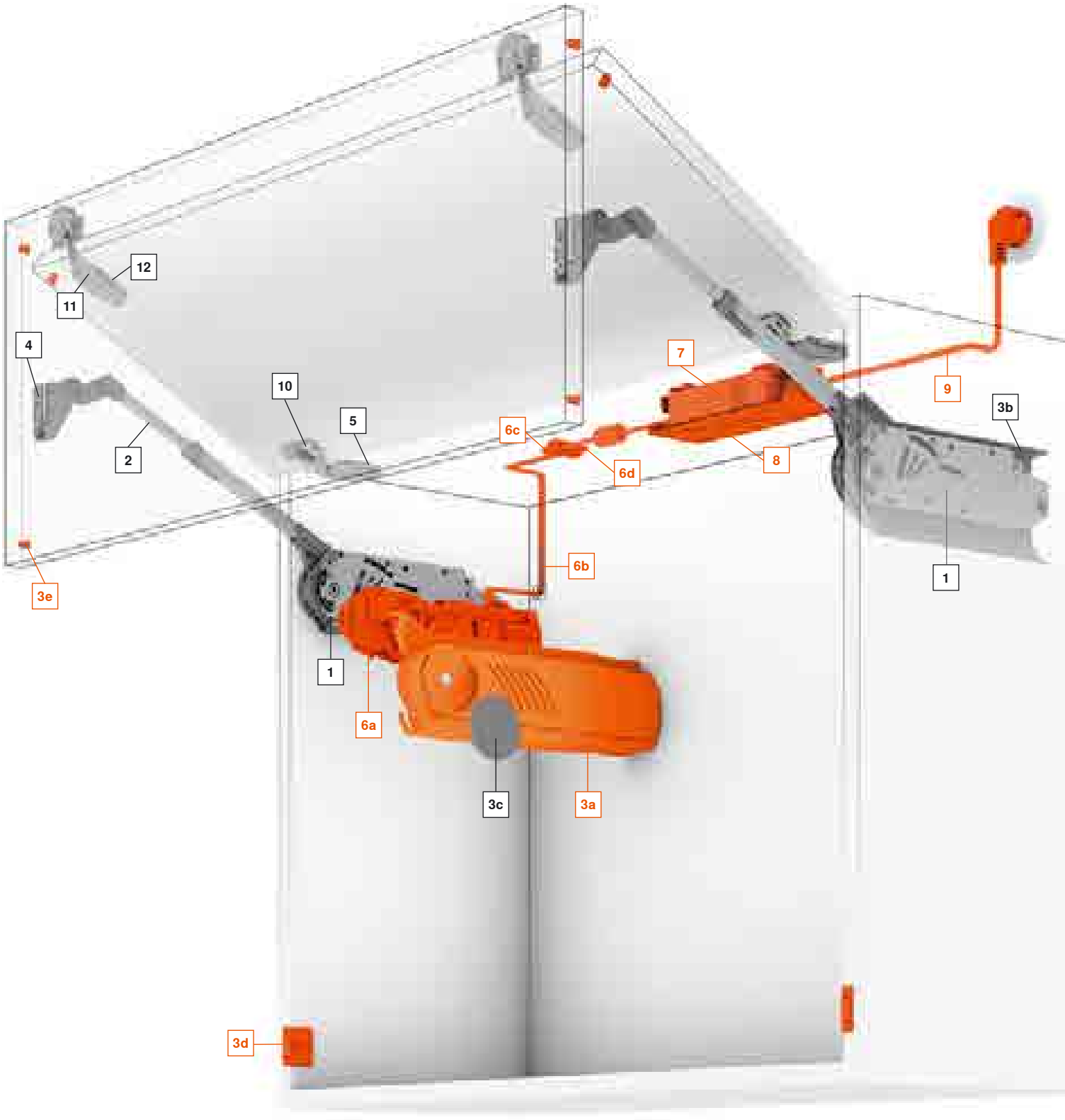
What happens in the event of a power cut?
If the power fails, SERVO-DRIVE cannot be activated. However, you can continue to open and close manually. Once the power has been restored, SERVO-DRIVE for AVENTOS is again functional – no re-setting is required.
If the power should fail while the lift system is in motion, it will stop in the in that position. Once the power has been restored, simply touch the SERVO-DRIVE switch to reactivate SERVO-DRIVE for AVENTOS.

Can SERVO-DRIVE for AVENTOS be deactivated?
Your customers can easily deactivate SERVO-DRIVE for AVENTOS, e.g. to clean the fronts. We recommend a switched outlet for this. While deactivated, the lift systems can continue to be opened and closed manually.

What if there is a warranty claim?
SERVO-DRIVE for AVENTOS underwent exhaustive testing in the Blum test lab: opening and closing 80.000 times.
When you combine SERVO-DRIVE with AVENTOS lift systems, you will benefit from a five-year warranty for all electrical components. In case of a warranty claim, please contact your Blum supplier.

Where can I find additional documentation?
Documentation is available on our homepage at www.blum.com

AVENTOS HF



Standard
SERVO-DRIVE

1 Lift mechanism

2 Telescopic arm

3a SERVO-DRIVE cover cap left
The left 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.

3b Cover cap right

3c Cover cap round

3d SERVO-DRIVE switch
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.

3e Blum distance bumper
The Blum distance bumper creates and maintains the required trigger path of 2 mm.

4 Mounting plate for telescopic arm

5 12 Mounting plate for
CLIP top 120° hinge
CLIP top centre hinge

6a Drive unit
The drive unit is attached tool-free to the left lift mechanism. The same drive unit can be used for all lift mechanisms.

6b Distribution cable
This cable is used to supply power to the drive unit. The max. permitted operating power is 24V.

6c 6d Connecting node + cable end protector
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.

7 9 Blum transformer + flex
The Blum transformer can be used worldwide. It converts the county-specific mains voltage to 24V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.

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

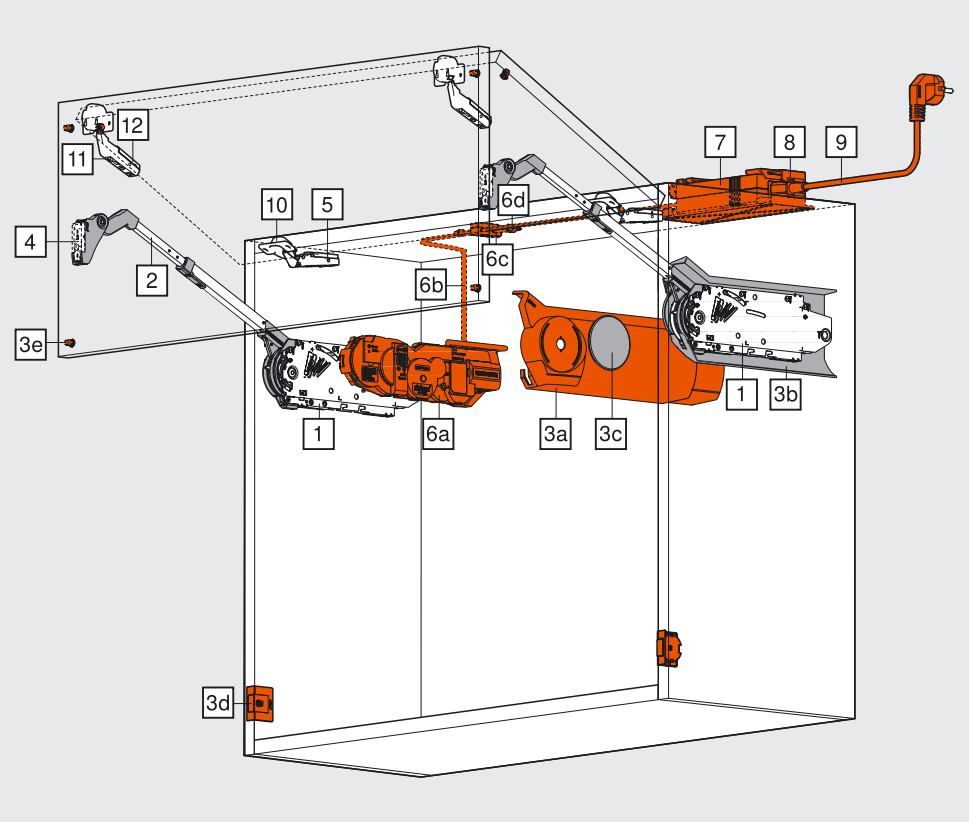
10 CLIP top 120° hinge (unsprung)

11 CLIP top centre hinge

* Available 2010

Order specifications

Wooden fronts and wide alu frames symmetrical/asymmetrical

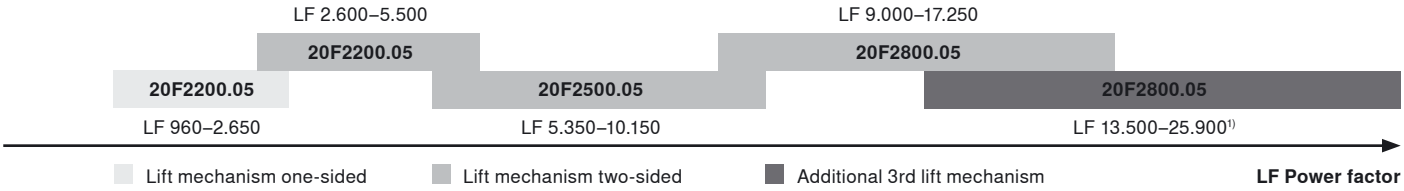


3 types of lift mechanisms are enough to cover a wide range of applications.

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

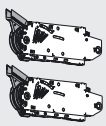
The larger front must be at the top for asymmetrical fronts.

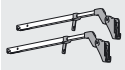
i	**This is how it's done!**	Symmetrical fronts: **Power factor = cabinet height (KH) [mm] x door weight**
		Asymmetrical fronts: **Theoretical cabinet height (TKH) = upper front height (FHo) x 2 (including gaps)**

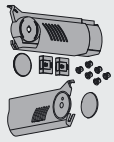


A trial application is recommended when you are in a borderline area for the individual lift mechanism.

¹⁾ We recommend two synchronised drive units for a power factor > 17.250.

1	**Lift mechanism set for SERVO-DRIVE**	
	Power factor LF	
	2.600–5.500	**20F2200.05**
	5.350–10.150	**20F2500.05**
	9.000–17.250	**20F2800.05**
	Composed of:	
	2 x symmetrical lift mechanisms	
	10 x Chipboard screws Ø 4 x 35 mm	

2	**Telescopic arm set**	
	Nickel plated steel	
	Cabinet height²⁾ 480–570 mm	**20F3200**
	Cabinet height²⁾ 560–710 mm	**20F3500**
	Cabinet height²⁾ 700–900 mm	**20F3800**
	Cabinet height²⁾ 760–1.040 mm	**20F3900**
	Composed of:	
	2 x symmetrical telescopic arms	
	²⁾ "Theoretical cabinet height" for asymmetrical fronts	

3	Cover cap set	
	light grey, silk white	
		21F8000
	Composed of:	
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	6 x Blum distance bumpers Ø 5 mm	

4	Mounting plate for telescopic arm		
	All horizontal mounting plates with 0 mm distance		
	Recommendation:		
	Screws[3]	Spacing 0 mm	175H5400
	EXPANDO	Spacing 0 mm	177H5400E
	Knock-in	Spacing 0 mm	177H5100

5	Mounting plate for CLIP top 120° hinge		
	Standard mounting plates, spacing depends on the top gap		
	Recommendation:		
	Screws[3]	Spacing 0 mm	175H5400
	EXPANDO, knock-in, see position 4		

6	SERVO-DRIVE set	
		21FA000
	Composed of:	
6a	1 x drive unit	
6b	1 x distribution cable, 1.500 mm	
6c	1 x connecting node	
6d	2 x cable end protectors	

10	CLIP top 120° hinge		
	Boss: Steel boss	Screws[3] Unsprung	70T5550.TL
	Boss: Steel boss	INSERTA Unsprung	70T5590BTL

11	CLIP top centre hinge		
	Boss: Zinc boss	Screws[3] Unsprung	78Z5500T
	Boss: Zinc boss	EXPANDO Unsprung	78Z553ET

	Bit PZ cross slot	
	Size 2, length 39 mm	
		BIT-PZ KS2

12	Mounting plate for CLIP top centre hinge		
	Standard mounting plates with 0 mm distance		
	Recommendation:		
	Screws[3]	Spacing 0 mm	175H5400
	Only use a cruciform mounting plate for wide alu frames under a 55 mm frame width		
	EXPANDO, knock-in, see position 4		

	Opening angle stop	
	Nylon, dark grey	
	104°	20F7051
	83°	20F7011

Instruction leaflet and installation instructions		
Including documentation for the Machine Directive		
MA-400	German	MA-021/01 DE
MA-400	English	MA-021/01 EN
MA-400	French	MA-021/01 FR
MA-400	Italian	MA-021/01 IT
MA-400	Spanish	MA-021/01 ES
MA-400	Bulgarian	MA-021/01 BG*
MA-400	Chinese	MA-021/01 ZH*
MA-400	Danish	MA-021/01 DA*
MA-400	Estonian	MA-021/01 ET*
MA-400	Finnish	MA-021/01 FI*
MA-400	Greek	MA-021/01 EL*
MA-400	Japanese	MA-021/01 JA*
MA-400	Croatian	MA-021/01 HR*
MA-400	Latvian	MA-021/01 LV*
MA-400	Lithuanian	MA-021/01 LT*
MA-400	Dutch	MA-021/01 NL*
MA-400	Norwegian	MA-021/01 NO*
MA-400	Polish	MA-021/01 PL*
MA-400	Portuguese	MA-021/01 PT*
MA-400	Romanian	MA-021/01 RO*
MA-400	Russian	MA-021/01 RU*
MA-400	Swedish	MA-021/01 SV*
MA-400	Serbian	MA-021/01 SR*
MA-400	Slovakian	MA-021/01 SK*
MA-400	Slovenian	MA-021/01 SL*
MA-400	Czech	MA-021/01 CS*
MA-400	Turkish	MA-021/01 TR*
MA-400	Hungarian	MA-021/01 HU*
* Available starting 01/2010		

7, 8, 9	Blum transformer, flex and transformer unit housing	
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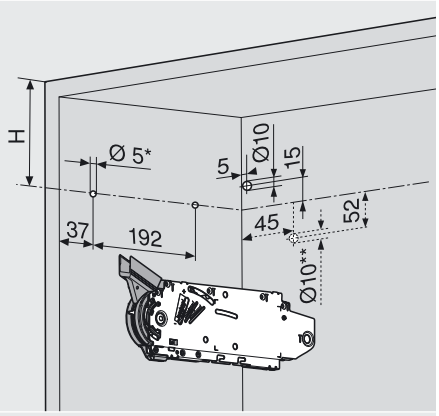
[3] Use chipboard screws (609.1x00) for wooden fronts. Use self tapping screws (608.085) for wide alu frames.

Planning Information

Wooden fronts and wide alu frames symmetrical

Drilling position for lift mechanism and distribution cable[1)]



4 x Ø 4 x 35 mm

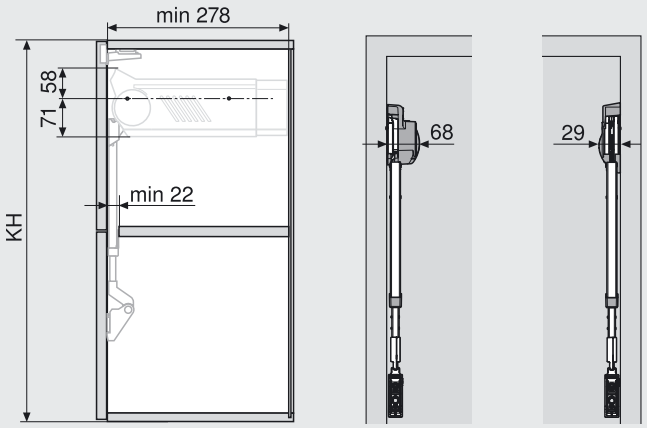
[1)] Only on the left side

* Drilling depth 5 mm

** Alternative drilling

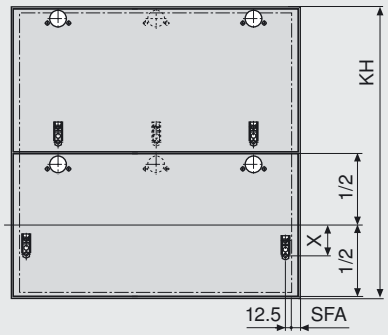
Cabinet height	H
480–549 mm	KH x 0.3 - 28 mm
550–1.040 mm	KH x 0.3 - 57 mm

Space requirement



KH Cabinet height

Front assembly



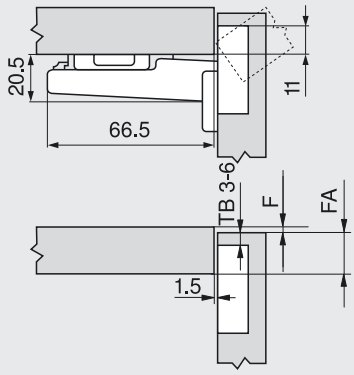
KH Cabinet height

SFA Side front overlay

Number of Hinges
3 hinges starting at cabinet width 1.200 mm and/or 12 kg door weight
4 hinges starting at cabinet width 1.800 mm and/or 20 kg door weight

Cabinet height	X Screw-on/ EXPANDO	X Knock-in
480–549 mm	68 mm	70 mm
550–1.040 mm	45 mm	47 mm

CLIP top 120° hinge unsprung



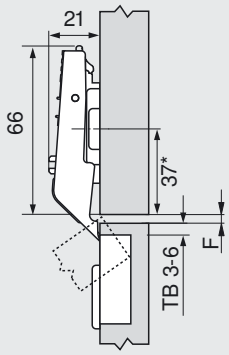
F Gap

Drilling distance TB

	Front overlay FA												
	5	6	7	8	9	10	11	12	13	14	15	16	17
0										3	4	5	6
3							3	4	5	6			
6				3	4	5	6						
9	3	4	5	6									

Mounting plate

CLIP top centre hinge



* 37 mm for cruciform mounting plates (37/32)

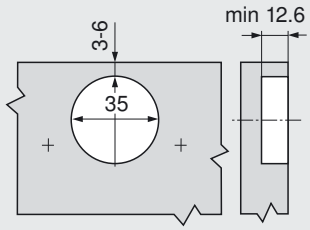
Min. gap F = 1.5 mm

Drilling distance TB

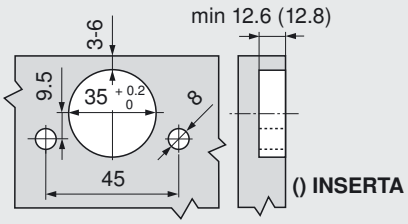
	Centre gap F												
										3	4	5	6
0										6	5	4	3
3													
6													
9													

Mounting plate

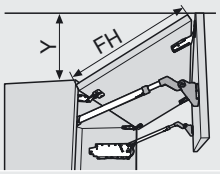
Screw-on



INSERTA/knock-in/EXPANDO assembly

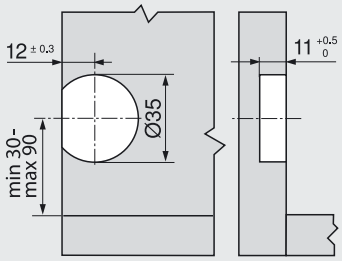


Space requirement

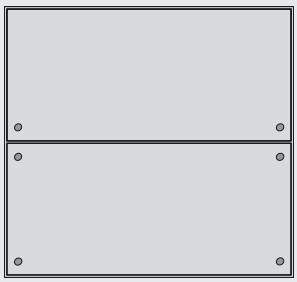


OEB = Opening angle stop	
Without OEB	Y = FH x 0.44 + 38
OEB 104°	Y = FH x 0.24 + 34
OEB 83°	Y = 0

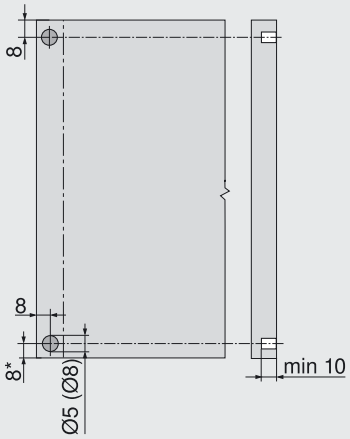
SERVO-DRIVE switch



Blum distance bumper



Blum distance bumper drilling position



* From cabinet front edge for fronts that protrude below

Recommendation for aluminium frames:
consider drilling the Blum distance bumper into the cabinet end panel. A trial application must be carried out when fixing the Blum distance bumper to the front.

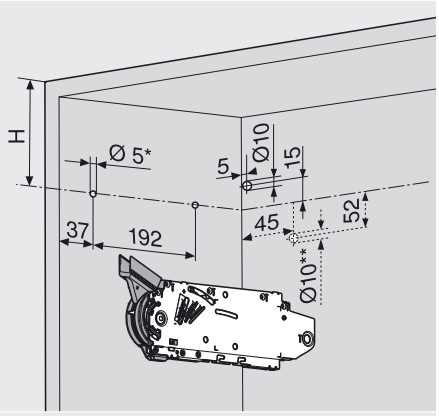
i Do not glue Blum distance bumper.

Blum distance bumper assembly, see page 46

Planning Information

Wooden fronts and wide alu frames asymmetrical

Drilling position for lift mechanism and distribution cable[1)]



4 x Ø 4 x 35 mm

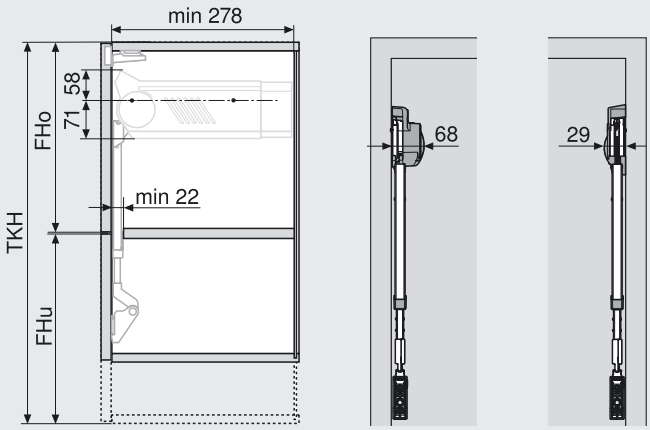
[1)] Only on the left side

* Drilling depth 5 mm

** Alternative drilling

TKH	H
480–549 mm	TKH x 0.3 - 28 mm
550–1.040 mm	TKH x 0.3 - 57 mm

Space requirement



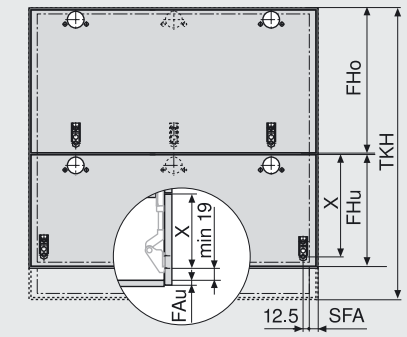
TKH Theoretical cabinet height

KH Cabinet height

FHo Upper front height

FHu Lower front height

Front assembly



Min. lower front height
X + 19 + FAu

FHo Upper front height

TKH Theoretical cabinet height

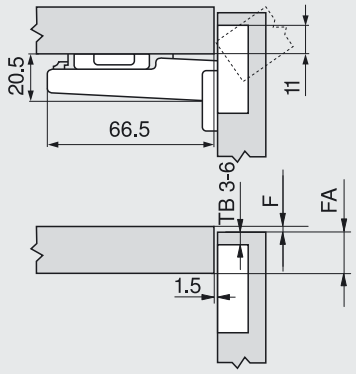
SFA Side front overlay

FAu Lower front overlay

Number of Hinges
3 hinges starting at cabinet width 1.200 mm and/or 12 kg door weight
4 hinges starting at cabinet width 1.800 mm and/or 20 kg door weight

TKH	X Screw-on/ EXPANDO	X Knock-in
480–549 mm	FHo/2 + 68 mm	FHo/2 + 70 mm
550–1.040 mm	FHo/2 + 45 mm	FHo/2 + 47 mm

CLIP top 120° hinge unsprung



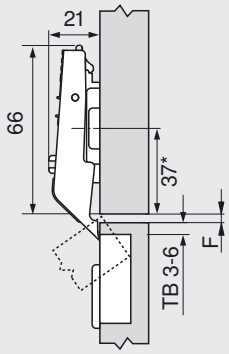
F Gap

Drilling distance TB

	Front overlay FA												
	5	6	7	8	9	10	11	12	13	14	15	16	17
0										3	4	5	6
3							3	4	5	6			
6				3	4	5	6						
9	3	4	5	6									

Mounting plate

CLIP top centre hinge



* 37 mm for cruciform mounting plates (37/32)

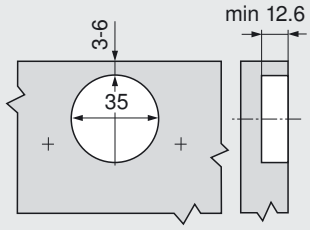
Min. gap F = 1.5 mm

Drilling distance TB

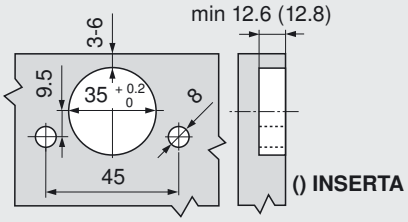
	Centre gap F												
										3	4	5	6
0										6	5	4	3
3													
6													
9													

Mounting plate

Screw-on

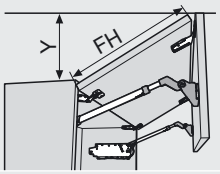


INSERTA/knock-in/EXPANDO assembly



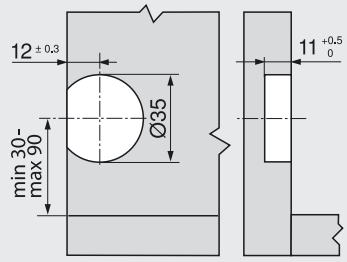
() **INSERTA**

Space requirement

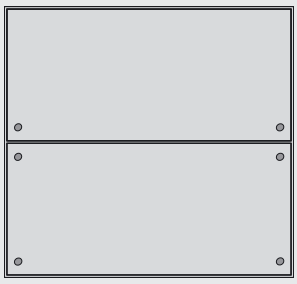


OEB = Opening angle stop	
Without OEB	Y = FH x 0.44 + 38
OEB 104°	Y = FH x 0.24 + 34
OEB 83°	Y = 0

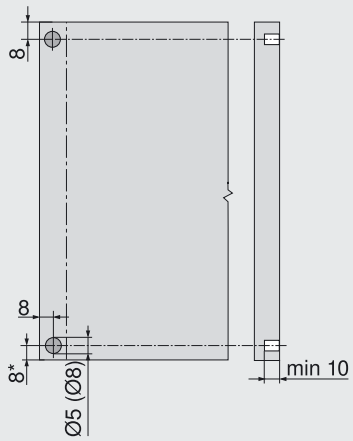
SERVO-DRIVE switch



Blum distance bumper



Blum distance bumper drilling position



* From cabinet front edge for fronts that protrude below

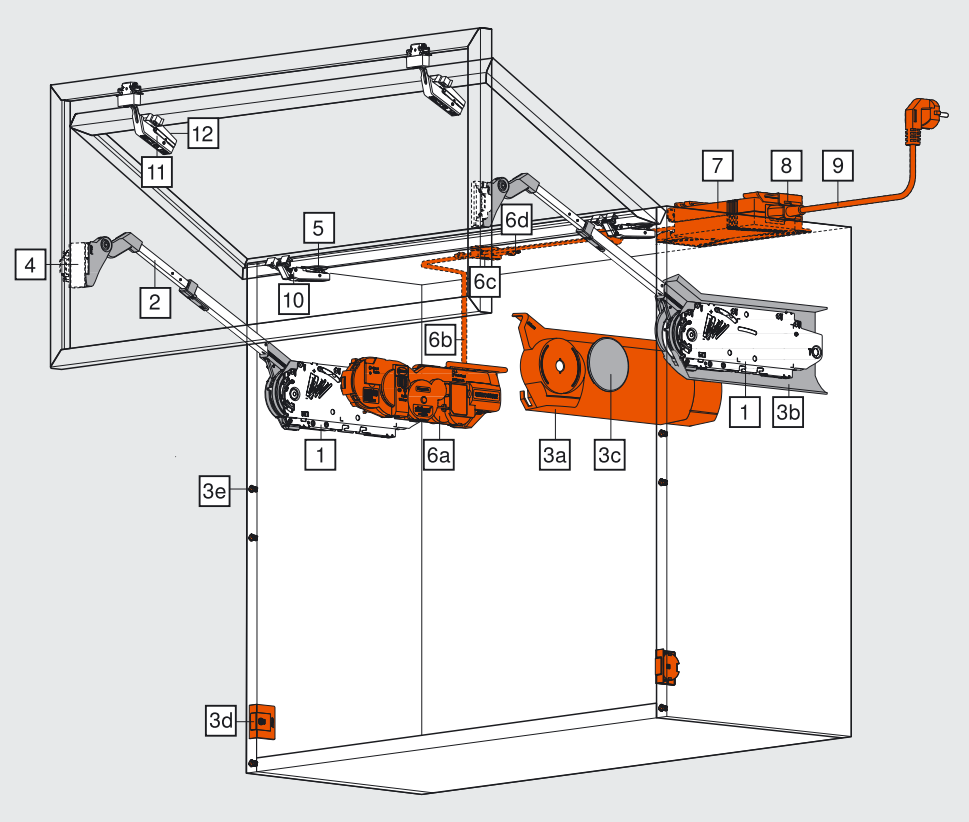
Recommendation for aluminium frames:
consider drilling the Blum distance bumper into the cabinet end panel. A trial application must be carried out when fixing the Blum distance bumper to the front.

i Do not glue Blum distance bumper.

Blum distance bumper assembly, see page 46

Order specifications

Narrow alu frames symmetrical/asymmetrical

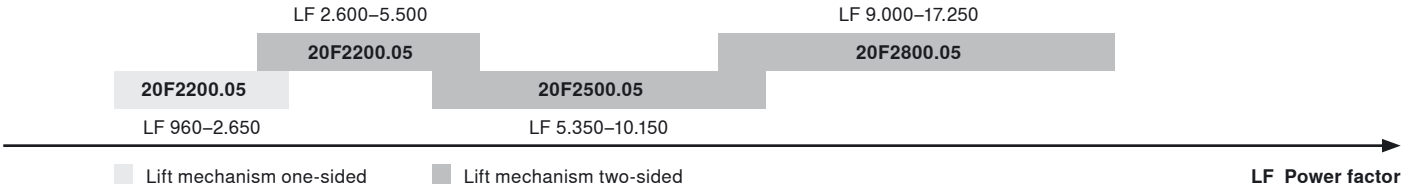


3 types of lift mechanisms are enough to cover a wide range of applications.

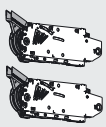
Using the power factor, you can calculate the number of required lift mechanisms.
The power factor required depends on the weight of the lower and upper front and the cabinet height.

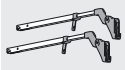
The larger front must be at the top for asymmetrical fronts.

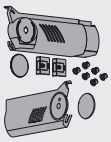
i	**This is how it's done!** Symmetrical fronts: **Power factor = cabinet height (KH) [mm] x door weight**
	Asymmetrical fronts: **Theoretical cabinet height (TKH) = upper front height (FHo) x 2 (including gaps)**



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

1	Lift mechanism set for SERVO-DRIVE	
	Power factor LF	
	2.600–5.500	**20F2200.05**
	5.350–10.150	**20F2500.05**
	9.000–17.250	**20F2800.05**
	Composed of:	
	2 x symmetrical lift mechanisms	
	10 x chipboard screws Ø 4 x 35 mm	

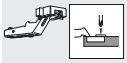
2	Telescopic arm set	
	Nickel plated steel	
	Cabinet height[1] 480–570 mm	**20F3200**
	Cabinet height[1] 560–710 mm	**20F3500**
	Cabinet height[1] 700–900 mm	**20F3800**
	Cabinet height[1] 760–1.040 mm	**20F3900**
	Composed of:	
	2 x symmetrical telescopic arms	
	[1] "Theoretical cabinet height" for asymmetrical fronts	

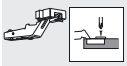
3	Cover cap set	
	light grey, silk white	21F8000
	Composed of:	
3a	1 x SERVO-DRIVE cover cap left	
3b	1 x cover cap right	
3c	2 x round cover caps	
3d	2 x SERVO-DRIVE switches	
3e	6 x Blum distance bumpers Ø 5 mm	

4	CLIP adapter plate for telescopic arms	
	Spacing 0 mm left/right	175H5B00

5	Mounting plate for CLIP top 120° hinge		
	Standard mounting plates, spacing depends on the top gap		
	Recommendation:		
	Screw-on	Spacing 0 mm	175H5400
	EXPANDO	Spacing 0 mm	177H5400E
	Knock-in	Spacing 0 mm	177H5100

6	SERVO-DRIVE set	
		21FA000
	Composed of:	
6a	1 x drive unit	
6b	1 x distribution cable, 1.500 mm	
6c	1 x connecting node	
6d	2 x cable end protectors	

10	CLIP top 120° alu frame hinge		
	Boss: Zinc boss	Screw-on Unsprung	72T550A.TL

11	CLIP top alu frame centre hinge		
	Boss: Zinc boss	Screw-on Unsprung	78Z550AT

12	CLIP adapter plate for centre hinges	
	Symmetrical	
		175H5A00

	Opening angle stop	
	Nylon, dark grey	
	104°	20F7051
	83°	20F7011

	Bit PZ cross slot	
	Size 2, length 39 mm	
		BIT-PZ KS2

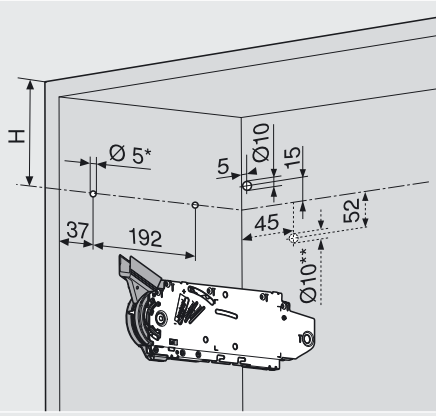
Instruction leaflet and installation instructions		
Including documentation for the Machine Directive		
MA-400	German	MA-021/01 DE
MA-400	English	MA-021/01 EN
MA-400	French	MA-021/01 FR
MA-400	Italian	MA-021/01 IT
MA-400	Spanish	MA-021/01 ES
MA-400	Bulgarian	MA-021/01 BG*
MA-400	Chinese	MA-021/01 ZH*
MA-400	Danish	MA-021/01 DA*
MA-400	Estonian	MA-021/01 ET*
MA-400	Finnish	MA-021/01 FI*
MA-400	Greek	MA-021/01 EL*
MA-400	Japanese	MA-021/01 JA*
MA-400	Croatian	MA-021/01 HR*
MA-400	Latvian	MA-021/01 LV*
MA-400	Lithuanian	MA-021/01 LT*
MA-400	Dutch	MA-021/01 NL*
MA-400	Norwegian	MA-021/01 NO*
MA-400	Polish	MA-021/01 PL*
MA-400	Portuguese	MA-021/01 PT*
MA-400	Romanian	MA-021/01 RO*
MA-400	Russian	MA-021/01 RU*
MA-400	Swedish	MA-021/01 SV*
MA-400	Serbian	MA-021/01 SR*
MA-400	Slovakian	MA-021/01 SK*
MA-400	Slovenian	MA-021/01 SL*
MA-400	Czech	MA-021/01 CS*
MA-400	Turkish	MA-021/01 TR*
MA-400	Hungarian	MA-021/01 HU*
* Available starting 01/2010		

7, 8, 9	Blum transformer, flex and transformer unit housing	
		Page 47

Planning Information

Narrow alu frames symmetrical

Drilling position for lift mechanism and distribution cable[1)]



4 x Ø 4 x 35 mm

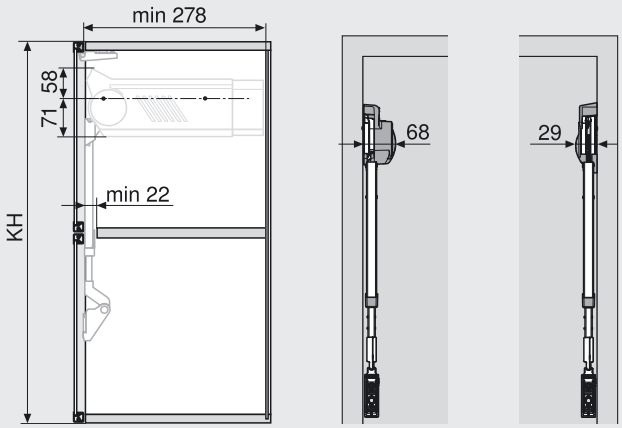
1) Only on the left side

* Drilling depth 5 mm

** Alternative drilling

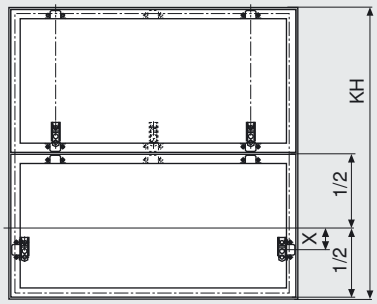
Cabinet height	H
480–549 mm	KH x 0.3 - 28 mm
550–1.040 mm	KH x 0.3 - 57 mm

Space requirement



KH Cabinet height

Front assembly

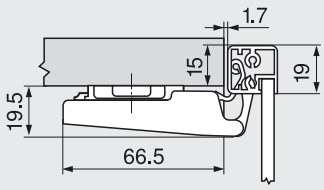


KH Cabinet height

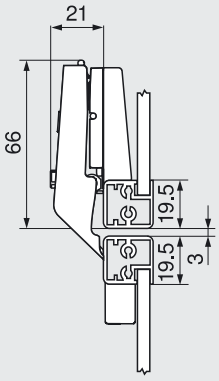
Number of Hinges
3 hinges starting at cabinet width 1.200 mm and/or 12 kg door weight
4 hinges starting at cabinet width 1.800 mm and/or 20 kg door weight

Cabinet height	X
480–549 mm	54 mm
550–1.040 mm	31 mm

CLIP top 120° alu frame hinge unsprung



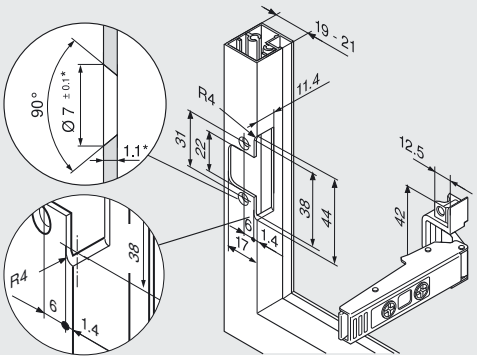
CLIP top alu frame centre hinge



Min. gap F = 1.5 mm

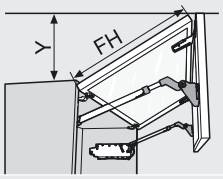
An adjustment has to be made for frame thicknesses over 20.5 mm

Front assembly



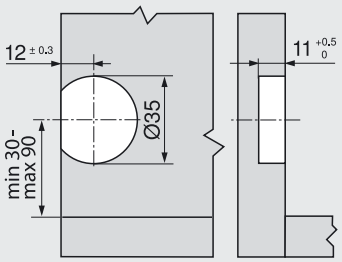
* When changing material thickness, adjust the assembly dimensions accordingly

Space requirement

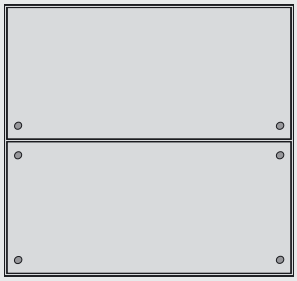


OEB = Opening angle stop	
Without OEB	Y = FH x 0.44 + 38
OEB 104°	Y = FH x 0.24 + 34
OEB 83°	Y = 0

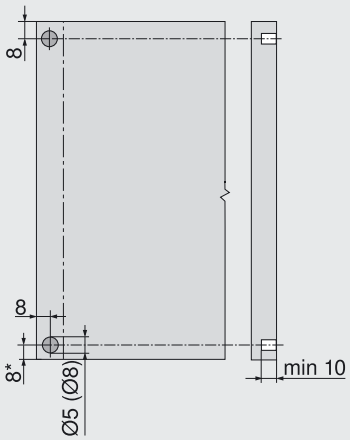
SERVO-DRIVE switch



Blum distance bumper



Blum distance bumper drilling position



* From cabinet front edge for fronts that protrude below

Recommendation for aluminium frames:
consider drilling the Blum distance bumper into the cabinet end panel. A trial application must be carried out when fixing the Blum distance bumper to the front.

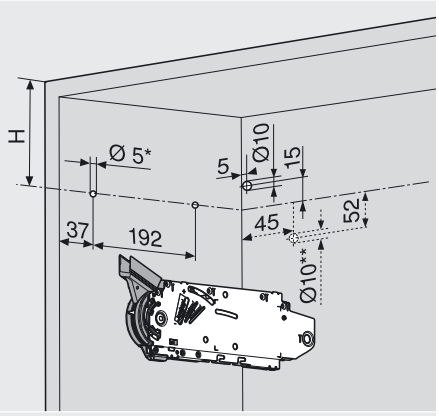
i Do not glue Blum distance bumper.

Blum distance bumper assembly, see page 46

Planning Information

Narrow alu frames asymmetrical

Drilling position for lift mechanism and distribution cable[1)]



4 x Ø 4 x 35 mm

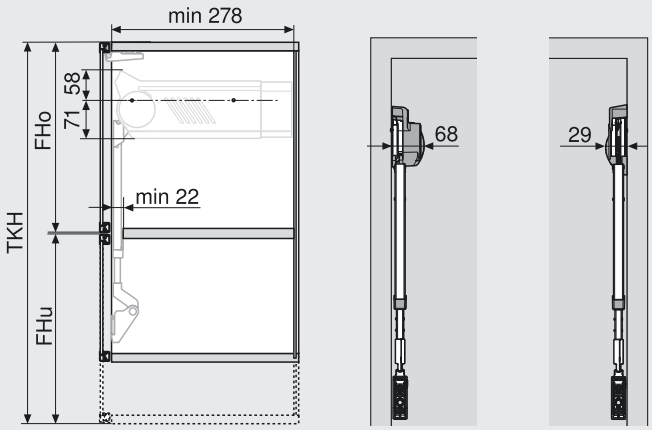
1) Only on the left side

* Drilling depth 5 mm

** Alternative drilling

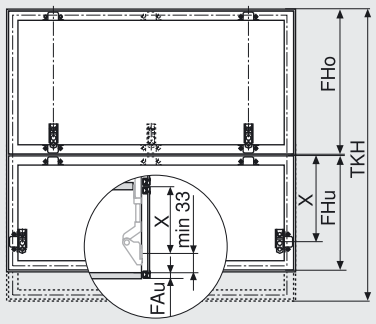
TKH	H
480–549 mm	TKH x 0.3 - 28 mm
550–1.040 mm	TKH x 0.3 - 57 mm

Space requirement



TKH	Theoretical cabinet height
KH	Cabinet height
FHo	Upper front height
FHu	Lower front height

Front assembly



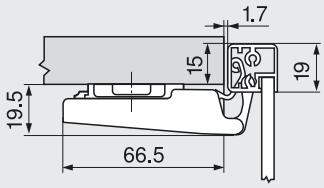
Min. lower front height
X + 33 + FAu

FHo	Upper front height
TKH	Theoretical cabinet height
FHu	Lower front height
FAu	Lower front overlay

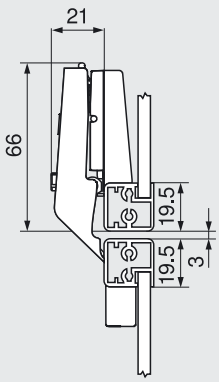
Number of Hinges
3 hinges starting at cabinet width 1.200 mm and/or 12 kg door weight
4 hinges starting at cabinet width 1.800 mm and/or 20 kg door weight

TKH	X
480–549 mm	FHo/2 + 54 mm
550–1.040 mm	FHo/2 + 31 mm

CLIP top 120° alu frame hinge unsprung



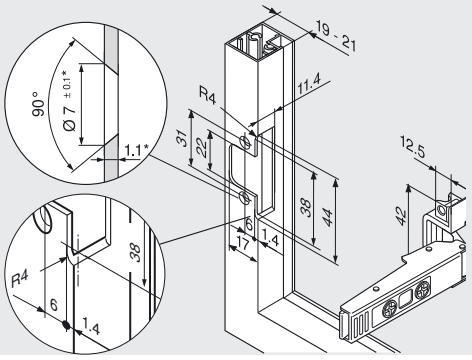
CLIP top alu frame centre hinge



Min. gap F = 1.5 mm

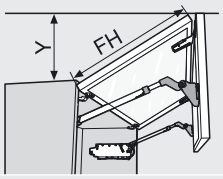
An adjustment has to be made for frame thicknesses over 20.5 mm

Screw-on



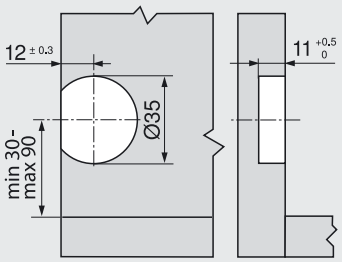
* When changing material thickness, adjust the assembly dimensions accordingly

Space requirement

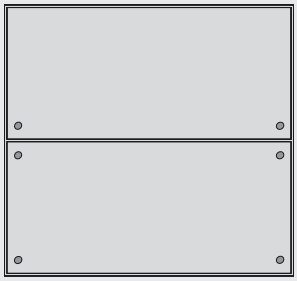


OEB = Opening angle stop	
Without OEB	Y = FH x 0.44 + 38
OEB 104°	Y = FH x 0.24 + 34
OEB 83°	Y = 0

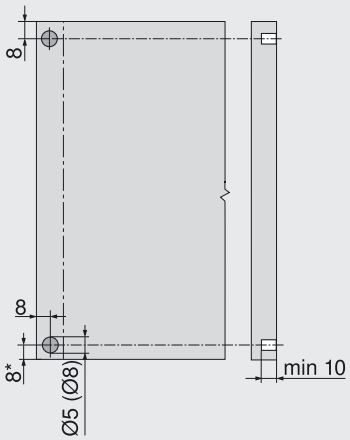
SERVO-DRIVE switch



Blum distance bumper



Blum distance bumper drilling position



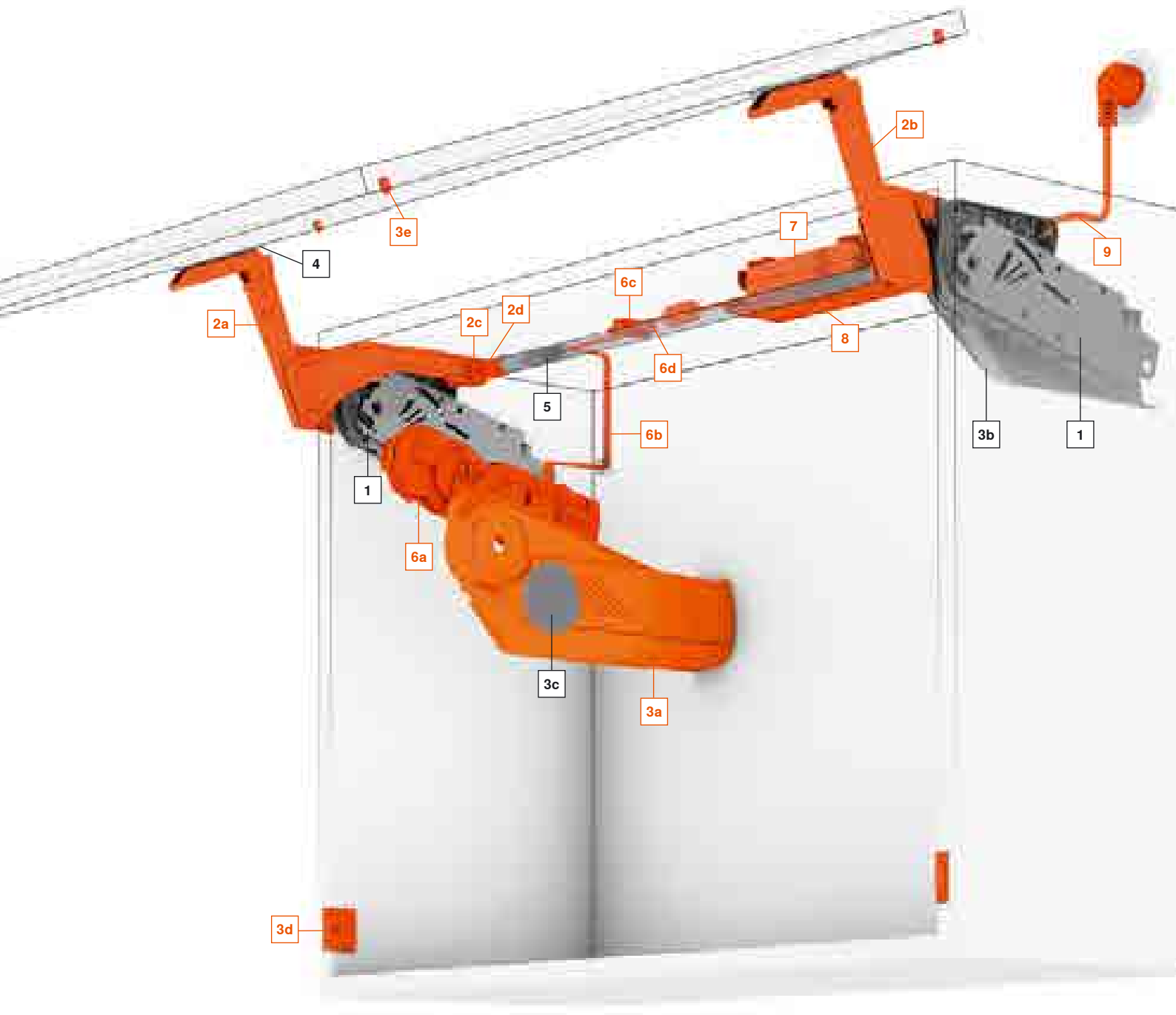
* From cabinet front edge for fronts that protrude below

Recommendation for aluminium frames:
consider drilling the Blum distance bumper into the cabinet end panel. A trial application must be carried out when fixing the Blum distance bumper to the front.

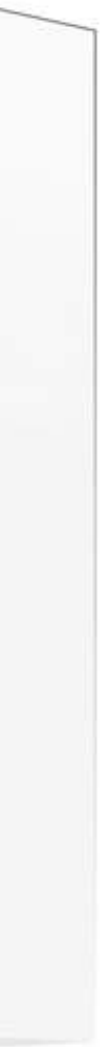
i Do not glue Blum distance bumper.

Blum distance bumper assembly, see page 46

AVENTOS HS



Standard
SERVO-DRIVE



1 Lift mechanism

2a 2b SERVO-DRIVE lever arm

2c Stabiliser adapter (steel)

2d Cross stabiliser cover cap

3a SERVO-DRIVE cover cap left
The left 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.

3b Cover cap right

3c Cover cap round

3d SERVO-DRIVE switch
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.

3e Blum distance bumper
The Blum distance bumper creates and maintains the required trigger path of 2 mm.

4 Front fixing bracket

5 Cross stabiliser rod round

6a Drive unit
The drive unit is attached tool-free to the left lift mechanism. The same drive unit can be used for all lift mechanisms.

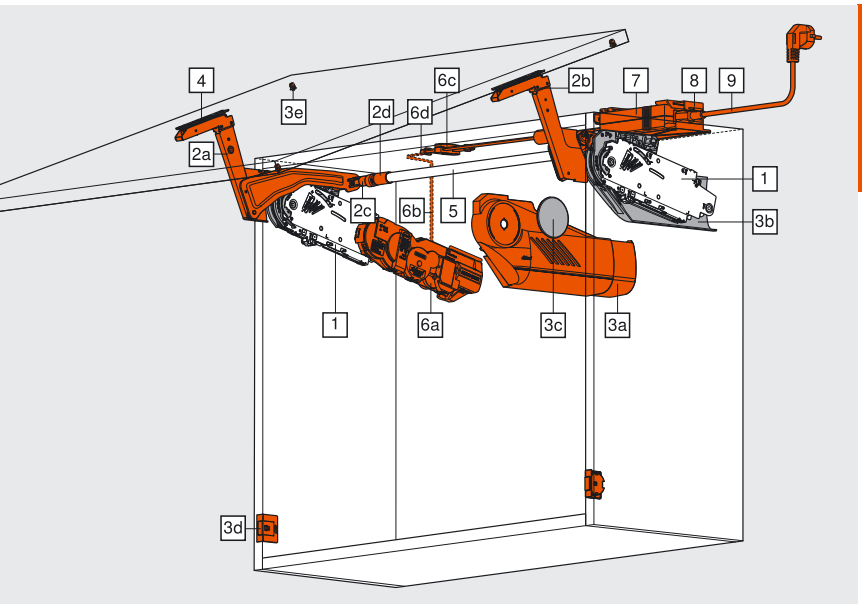
6b Distribution cable
This cable is used to supply power to the drive unit. The max. permitted operating power is 24V.

6c 6d Connecting node + cable end protector
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.

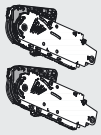
7 9 Blum transformer + flex
The Blum transformer can be used worldwide. It converts the county-specific mains voltage to 24V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.

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

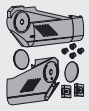
* Available 2010



Order specifications

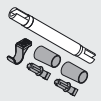
1	Lift mechanism set for SERVO-DRIVE			
	Cabinet height 350–525	20S2A00.05	20S2B00.05	20S2C00.05
	Cabinet height 526–675	20S2D00.05	20S2E00.05	20S2F00.05
	Cabinet height 676–800	20S2G00.05	20S2H00.05	20S2I00.05
	Composed of:			
	2 x symmetrical lift mechanisms			
	10 x chipboard screws, Ø 4 x 35 mm			

2a + 2b	SERVO-DRIVE lever arm set	
	Steel, nickel plated	21S3500
	Composed of:	
	2 x SERVO-DRIVE lever arms left/right	
	2 x stabiliser adapters (steel)	
	2 x cross stabiliser cover caps	

3	Cover cap set	
	light grey, silk white	
		21S8000
	Composed of:	
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	

4	Front fixing bracket set	
	Nickel plated	
	Wooden fronts and wide alu frames[1)]	20S4200
	Narrow alu frames	20S4200A
	Composed of: 2 x symmetrical front fixing brackets	

[1)] Use 4 chipboard screws (609.1x00) for wooden fronts.
Use 4 self tapping screws (608.085) for wide alu frames.

	Connecting piece for cross stabiliser set	
	Alu, Ø 16 mm, cabinet width 1.219 mm and higher	21Q126Z
	Composed of:	
	1 x connecting piece, 1 x fixing, 2 x connectors (steel), 2 x cover caps	

5	Cross stabiliser rod round	
	Alu, Ø 16 mm	
	For cutting to size, 1.061 mm	20Q1061U

6	SERVO-DRIVE set	
		21FA000
	Composed of:	
6a	1 x drive unit	
6b	1 x distribution cable, 1.500 mm	
6c	1 x connecting node	
6d	2 x cable end protectors	

Instruction leaflet and installation instructions		
Including documentation for the Machine Directive		
MA-400	German	MA-021/01 DE
MA-400	English	MA-021/01 EN
MA-400	French	MA-021/01 FR
MA-400	Italian	MA-021/01 IT
MA-400	Spanish	MA-021/01 ES
MA-400	Bulgarian	MA-021/01 BG*
MA-400	Chinese	MA-021/01 ZH*
MA-400	Danish	MA-021/01 DA*
MA-400	Estonian	MA-021/01 ET*
MA-400	Finnish	MA-021/01 FI*
MA-400	Greek	MA-021/01 EL*
MA-400	Japanese	MA-021/01 JA*
MA-400	Croatian	MA-021/01 HR*
MA-400	Latvian	MA-021/01 LV*
MA-400	Lithuanian	MA-021/01 LT*
MA-400	Dutch	MA-021/01 NL*
MA-400	Norwegian	MA-021/01 NO*
MA-400	Polish	MA-021/01 PL*
MA-400	Portuguese	MA-021/01 PT*
MA-400	Romanian	MA-021/01 RO*
MA-400	Russian	MA-021/01 RU*
MA-400	Swedish	MA-021/01 SV*
MA-400	Serbian	MA-021/01 SR*
MA-400	Slovakian	MA-021/01 SK*
MA-400	Slovenian	MA-021/01 SL*
MA-400	Czech	MA-021/01 CS*
MA-400	Turkish	MA-021/01 TR*
MA-400	Hungarian	MA-021/01 HU*

* Available starting 01/2010

7, 8, 9	Blum transformer, flex and transformer unit housing	
		Page 47

	Bit PZ cross slot	
	Size 2, length 39 mm	
		BIT-PZ KS2

The cabinet front and door weight is required in order to select the correct lift mechanism.

Example: Cabinet height KH = 600 mm
Weight of front = 10 kg
Lift mechanism selection = **20S2E00.05**

Cabinet height KH = 602 mm rounded to KH = 600 mm
Cabinet height KH = 603 mm rounded to KH = 605 mm

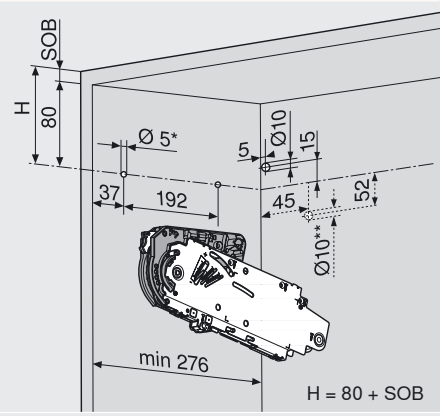
KH (mm)	Door weight (kg) 20S2G00.05	20S2H00.05	20S2I00.05
800	4.00–7.00	6.00–12.25	10.50–20.00
795	4.00–7.00	6.00–12.25	10.50–20.00
790	4.00–7.00	6.00–12.25	10.75–20.00
785	4.00–7.00	6.25–12.50	10.75–20.00
780	4.00–7.00	6.25–12.50	10.75–20.25
775	3.75–7.00	6.25–12.50	11.00–20.25
770	3.75–7.00	6.25–12.50	11.00–20.25
765	3.75–7.25	6.50–12.50	11.00–20.25
760	3.75–7.25	6.50–12.75	11.25–20.25
755	3.75–7.25	6.50–12.75	11.25–20.50
750	3.50–7.25	6.50–12.75	11.50–20.50
745	3.50–7.25	6.50–12.75	11.50–20.50
740	3.50–7.25	6.50–12.75	11.75–20.75
735	3.50–7.50	6.50–13.00	11.75–20.75
730	3.50–7.50	6.75–13.00	11.75–21.00
725	3.50–7.50	6.75–13.00	12.00–21.00
720	3.50–7.50	6.75–13.00	12.00–21.25
715	3.50–7.50	6.75–13.00	12.00–21.25
710	3.50–7.75	6.75–13.25	12.25–21.25
705	3.50–7.75	6.75–13.25	12.25–21.50
700	3.50–7.75	6.75–13.25	12.50–21.50
695	3.50–7.75	6.75–13.25	12.50–21.50
690	3.50–7.75	6.75–13.25	12.75–21.50
685	3.50–8.00	7.00–13.25	12.75–21.50
680	3.50–8.00	7.00–13.50	13.00–21.50
676	3.50–8.00	7.00–13.50	13.00–21.50

KH (mm)	20S2D00.05	20S2E00.05	20S2F00.05
675	3.00–5.25	5.00–11.00	09.75–19.00
670	3.00–5.25	5.00–11.00	09.75–19.00
665	3.00–5.25	5.00–11.00	09.75–19.00
660	3.00–5.50	5.25–11.25	10.00–19.00
655	3.00–5.50	5.25–11.25	10.00–19.00
650	3.00–5.50	5.25–11.25	10.00–19.00
645	3.00–5.50	5.25–11.25	10.00–18.75
640	3.00–5.50	5.25–11.25	10.00–18.75
635	3.00–5.50	5.25–11.50	10.25–18.75
630	3.00–5.75	5.50–11.50	10.25–18.75
625	3.00–5.75	5.50–11.50	10.25–18.75
620	3.00–5.75	5.50–11.50	10.25–18.75
615	3.00–5.75	5.50–11.50	10.25–18.75
610	3.00–6.00	5.50–11.75	10.50–18.50
605	3.00–6.00	5.50–11.75	10.50–18.50
600	3.00–6.00	5.50–11.75	10.50–18.50
595	3.00–6.00	5.50–11.75	10.50–18.50
590	3.00–6.00	5.50–12.00	10.75–18.25
585	3.00–6.25	5.75–12.00	10.75–18.25
580	3.00–6.25	5.75–12.00	11.00–18.00
575	3.00–6.25	5.75–12.00	11.00–18.00
570	3.00–6.25	5.75-12.25	11.25–17.75
565	3.00–6.25	5.75–12.25	11.25–17.75
560	3.00–6.50	6.00–12.25	11.25–17.50
555	3.00–6.50	6.00–12.50	11.50–17.50
550	3.00–6.50	6.00–12.50	11.50–17.25
545	3.00–6.50	6.00–12.50	11.50–17.25
540	3.00–6.50	6.00–12.75	11.75–17.00
535	3.00–6.75	6.25–12.75	11.75–16.75
530	3.00–6.75	6.25–12.75	11.75–16.75
526	3.00–6.75	6.25–13.00	12.00–16.50

KH (mm)	20S2A00.05	20S2B00.05	20S2C00.05
525	2.50–4.00	3.25–7.50	7.25–15.00
520	2.50–4.00	3.50–7.50	7.25–15.00
515	2.50–4.00	3.50–7.50	7.25–14.75
510	2.50–4.00	3.50–7.75	7.50–14.75
505	2.50–4.00	3.50–7.75	7.50–14.75
500	2.50–4.25	3.50–7.75	7.50–14.75
495	2.50–4.25	3.75–7.75	7.50–14.50
490	2.50–4.25	3.75–8.00	7.75–14.50
485	2.50–4.25	3.75–8.00	7.75–14.25
480	2.50–4.25	3.75–8.00	7.75–14.25
475	2.50–4.25	3.75–8.00	7.75–14.00
470	2.50–4.25	4.00–8.25	8.00–14.00
465	2.25–4.25	4.00–8.25	8.00–13.75
460	2.25–4.25	4.00–8.25	8.00–13.75
455	2.25–4.25	4.00–8.50	8.25–13.50
450	2.25–4.25	4.00–8.50	8.25–13.50
445	2.25–4.50	4.25–8.50	8.25–13.25
440	2.25–4.50	4.25–8.50	8.25–13.00
435	2.25–4.50	4.25–8.75	8.50–13.00
430	2.25–4.50	4.25–8.75	8.50–12.75
425	2.25–4.50	4.25–8.75	8.50–12.75
420	2.25–4.50	4.25–8.75	8.50–12.50
415	2.25–4.50	4.25–8.75	8.50–12.50
410	2.25–4.50	4.25–9.00	8.75–12.25
405	2.25–4.50	4.25–9.00	8.75–12.00
400	2.00–4.75	4.25–9.00	8.75–12.00
395	2.00–4.75	4.50–9.00	8.75–11.75
390	2.00–4.75	4.50–9.00	8.75–11.50
385	2.00–4.75	4.50–9.25	9.00–11.50
380	2.00–4.75	4.50–9.25	9.00–11.25
375	2.00–4.75	4.50–9.25	9.00–11.25
370	2.00–4.75	4.50–9.25	9.00–11.00
365	2.00–4.75	4.50–9.25	9.00–11.00
360	2.00–4.75	4.50–9.50	9.25–10.75
355	2.00–4.75	4.50–9.50	9.25–10.50
350	2.00–5.00	4.50–9.50	9.25–10.50

Planning Information

Drilling position for lift mechanism and distribution cable[1)]



5 x Ø 4 x 35 mm

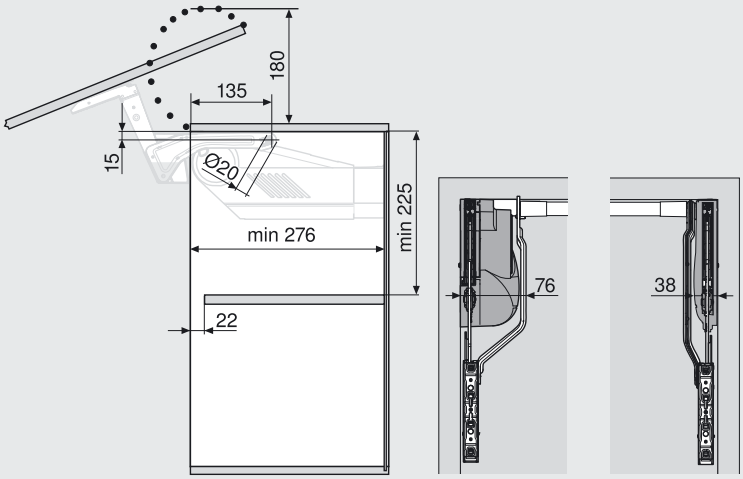
[1)] Only on the left side

* Drilling depth 5 mm

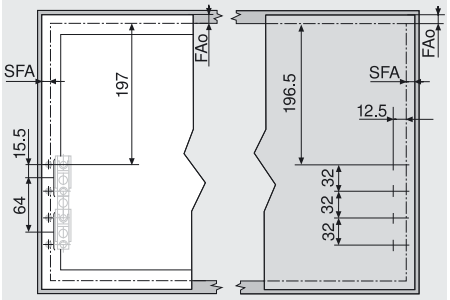
** Alternative drilling

SOB Top panel thickness

Space requirement



Front assembly



Narrow alu frames

Wooden fronts and wide alu frames[2)]

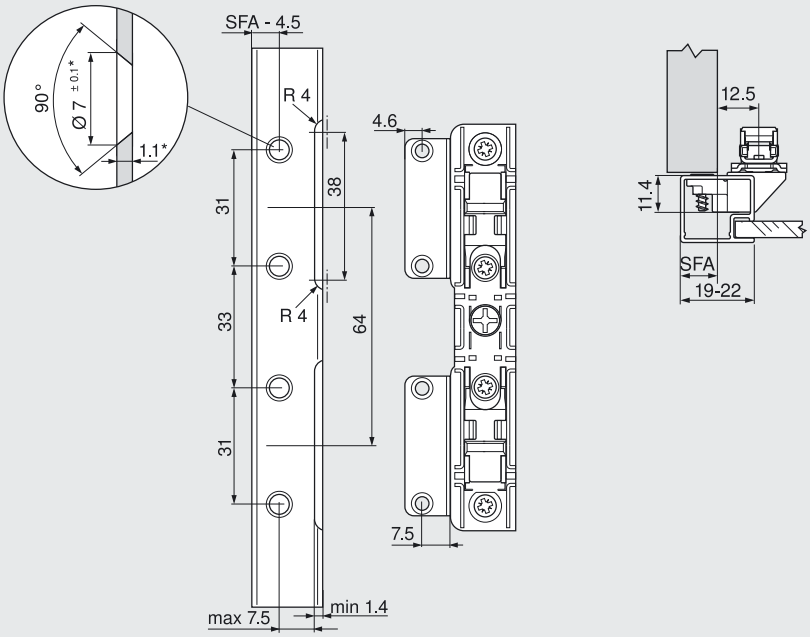
FAo Upper front overlay

SFA Side front overlay

If cabinet is mounted against wall on left/right, then a 5 mm (min.) gap between edge of frontal & wall is required.

[2)] Use 4 chipboard screws (609.1x00) for wooden fronts. Use 4 self tapping screws (608.085) for wide alu frames.

Planning narrow alu frames

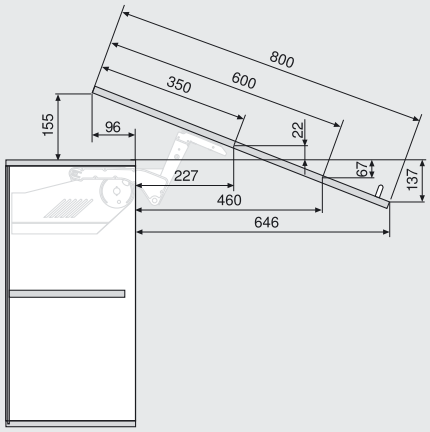


SFA Side front overlay

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

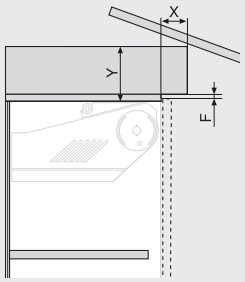
* When changing material thickness, adjust the assembly dimensions accordingly

Front setting



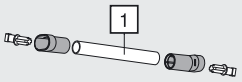
Dimensions depend on tilt adjustment

Cornice and crown moulding clearance



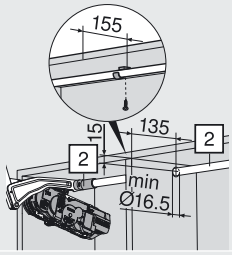
Gap F	X max	Y max
3 mm	35 mm	101 mm
2 mm	31 mm	101 mm
1.5 mm	28 mm	101 mm

Cross stabiliser



[1] KB (KS 16-19 mm) -193 mm
and/or inner width -155 mm

Connecting piece

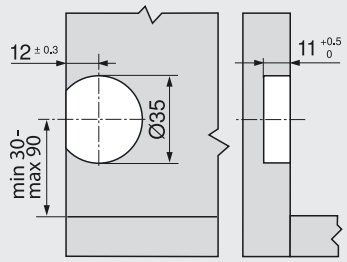


[2] half KB (KS 16–19mm) -193 mm

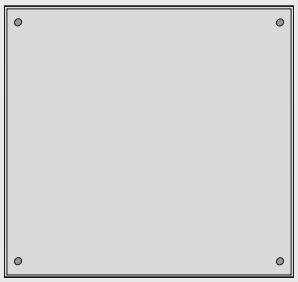
KB Cabinet width

KS Cabinet thickness

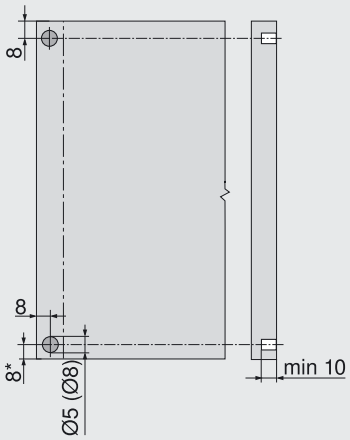
SERVO-DRIVE switch



Blum distance bumper



Blum distance bumper drilling position



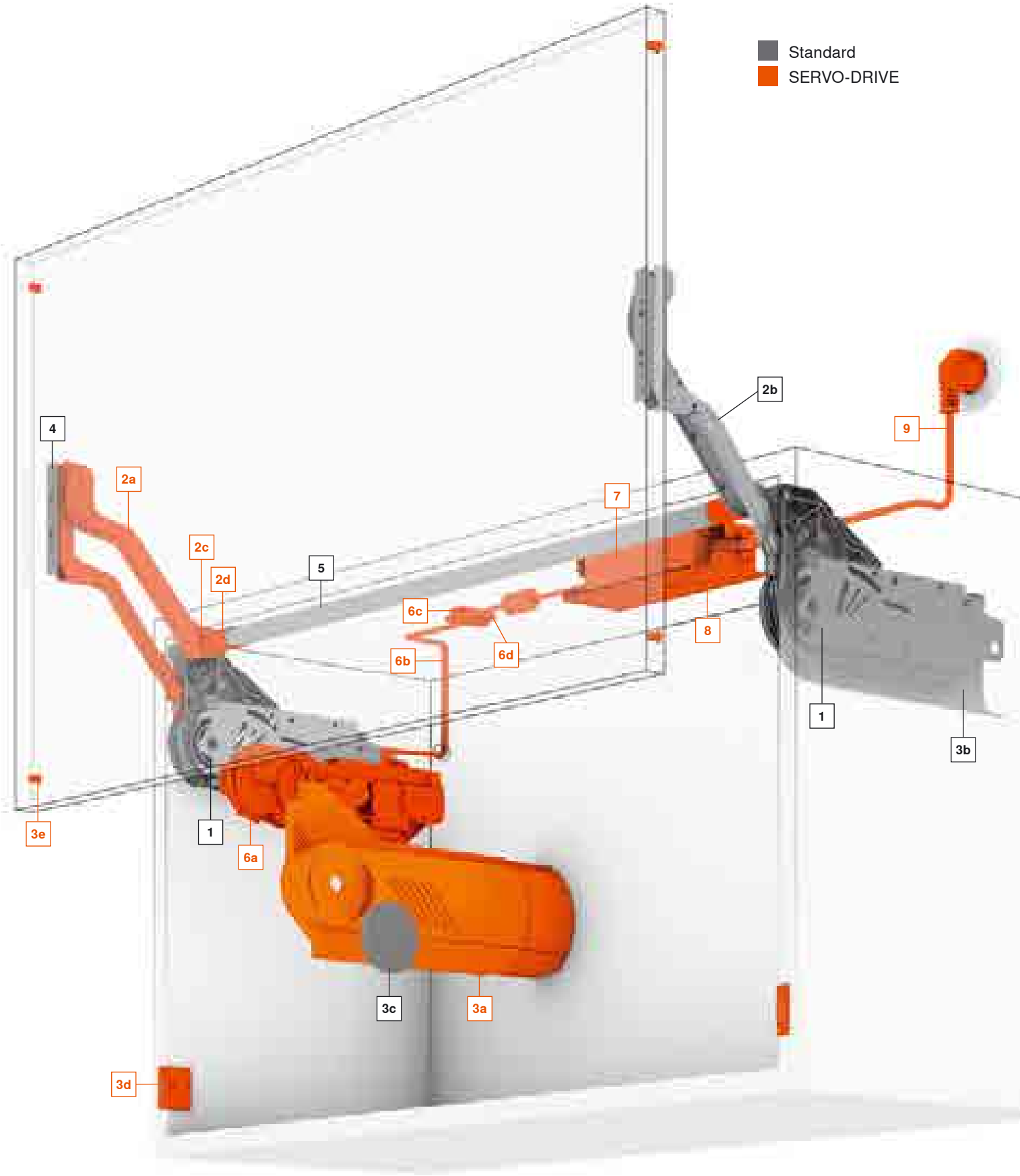
* From cabinet front edge for fronts that protrude below

Recommendation for aluminium frames:
consider drilling the Blum distance bumper into the cabinet end panel. A trial application must be carried out when fixing the Blum distance bumper to the front.

i Do not glue Blum distance bumper.

Blum distance bumper assembly, see page 46

AVENTOS HL


Standard
SERVO-DRIVE
4
2a
2c
2d
5
2b
9
7
6c
6b
6d
8
1
3b
3e
1
6a
3c
3a
3d

1 Lift mechanism

2a SERVO-DRIVE lever arm left

2b Lever arm right

2c Stabiliser adapter (steel)

2d Cross stabiliser cover cap

3a SERVO-DRIVE cover cap left
The left 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.

3b Cover cap right

3c Cover cap round

3d SERVO-DRIVE switch
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.

3e Blum distance bumper
The Blum distance bumper creates and maintains the required trigger path of 2 mm.

4 Front fixing bracket

5 Oval cross stabiliser

6a Drive unit
The drive unit is attached tool-free to the left lift mechanism. The same drive unit can be used for all lift mechanisms.

6b Distribution cable
This cable is used to supply power to the drive unit. The max. permitted operating power is 24V.

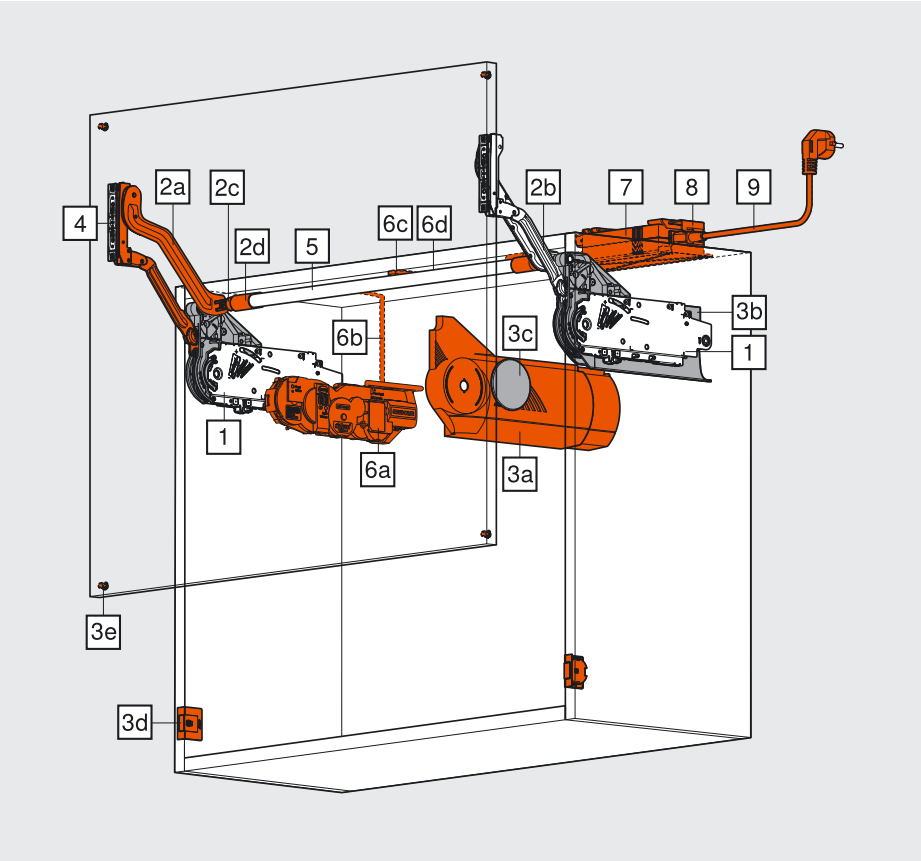
6c 6d Connecting node + cable end protector
This node establishes the electrical connection between the distribution cable and the transformer. The cable end protector is inserted into the “open” end of the cable.

7 9 Blum transformer + flex
The Blum transformer can be used worldwide. It converts the county-specific mains voltage to 24V direct current. You must use a flex with a regular plug for the respective country depending on the installation location.

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

* Available 2010

Order specifications

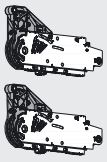


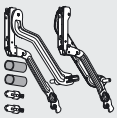
5 types of lift mechanisms are enough to cover a wide range of applications.

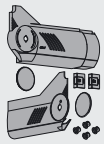
The cabinet front and door weight is required in order to select the correct lift mechanism.

Cabinet height	Lever arm	Lift mechanism					
		20L2100.05	20L2300.05	20L2500.05	20L2700.05	20L2900.05	
300–349 mm	21L3200	1.25–4.25 kg	3.50–7.25 kg	6.50–12.00 kg	11.00–20.00 kg		
350–399 mm	21L3500	1.25–2.50 kg	1.75–5.00 kg	4.25–9.00 kg	8.00–14.75 kg	13.50–20.00 kg	
400–550 mm	21L3800		1.75–3.50 kg	2.75–6.75 kg	5.75–11.75 kg	10.50–20.00 kg	
450–580 mm	21L3900			2.00–5.25 kg	4.25–9.25 kg	8.25–16.50 kg	

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

1	Lift mechanism set for SERVO-DRIVE	
		20L2100.05
		20L2300.05
		20L2500.05
		20L2700.05
		20L2900.05
	Composed of:	
	2 x symmetrical lift mechanisms	
	10 x chipboard screws, Ø 4 x 35 mm	

2	SERVO-DRIVE lever arm set	
	Nickel plated steel	
	Cabinet height 300–349 mm	21L3200
	Cabinet height 350–399 mm	21L3500
	Cabinet height 400–550 mm	21L3800
	Cabinet height 450–580 mm	21L3900
	Composed of:	
2a	1 x SERVO-DRIVE lever arm left	
2b	1 x lever arm right	
6b	2 x oval stabiliser adapters (steel)	
6c	2 x oval cross stabiliser cover caps	

3	Cover cap set	
	light grey, silk white	
		21L8000
	Composed of:	
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	

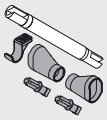
4	Front fixing bracket set	
	Nickel plated	
	Wooden fronts and wide alu frames[1)]	
		20S4200
	Narrow alu frames	20S4200A
	Composed of:	
	2 x symmetrical front fixing brackets	
	[1)] Use 4 chipboard screws (609.1x00) for wooden fronts. Use 4 self tapping screws (608.085) for wide alu frames.	

5	Cross stabiliser rod oval	
	Alu	
	For cutting to size, 1.061 mm	20Q1061UA

6	SERVO-DRIVE set	
		21FA000
	Composed of:	
6a	1 x drive unit	
6b	1 x distribution cable, 1.500 mm	
6c	1 x connecting node	
6d	2 x cable end protectors	

	Bit PZ cross slot	
	Size 2, length 39 mm	
		BIT-PZ KS2

7, 8, 9	Blum transformer, flex and transformer unit housing	
	Page	47

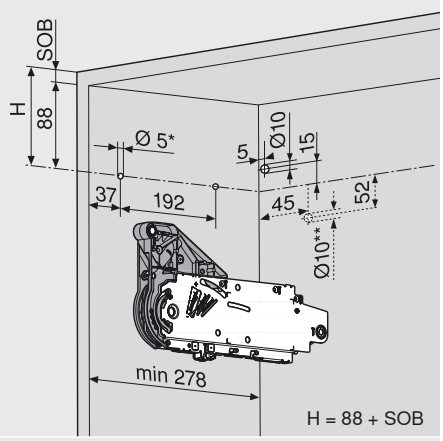
	Connecting piece for cross stabiliser set	
	Alu, Ø 16 mm, cabinet width 1.219 mm and higher	
		21Q126ZA
	Composed of:	
	1 x connecting piece	
	1 x fixing	
	2 x attachments (steel)	
	2 x cover caps	

Instruction leaflet and installation instructions		
Including documentation for the Machine Directive		
MA-400	German	MA-021/01 DE
MA-400	English	MA-021/01 EN
MA-400	French	MA-021/01 FR
MA-400	Italian	MA-021/01 IT
MA-400	Spanish	MA-021/01 ES
MA-400	Bulgarian	MA-021/01 BG*
MA-400	Chinese	MA-021/01 ZH*
MA-400	Danish	MA-021/01 DA*
MA-400	Estonian	MA-021/01 ET*
MA-400	Finnish	MA-021/01 FI*
MA-400	Greek	MA-021/01 EL*
MA-400	Japanese	MA-021/01 JA*
MA-400	Croatian	MA-021/01 HR*
MA-400	Latvian	MA-021/01 LV*
MA-400	Lithuanian	MA-021/01 LT*
MA-400	Dutch	MA-021/01 NL*
MA-400	Norwegian	MA-021/01 NO*
MA-400	Polish	MA-021/01 PL*
MA-400	Portuguese	MA-021/01 PT*
MA-400	Romanian	MA-021/01 RO*
MA-400	Russian	MA-021/01 RU*
MA-400	Swedish	MA-021/01 SV*
MA-400	Serbian	MA-021/01 SR*
MA-400	Slovakian	MA-021/01 SK*
MA-400	Slovenian	MA-021/01 SL*
MA-400	Czech	MA-021/01 CS*
MA-400	Turkish	MA-021/01 TR*
MA-400	Hungarian	MA-021/01 HU*

* Available starting 01/2010

Planning Information

Drilling position for lift mechanism and distribution cable[1)]



5 x Ø 4 x 35 mm

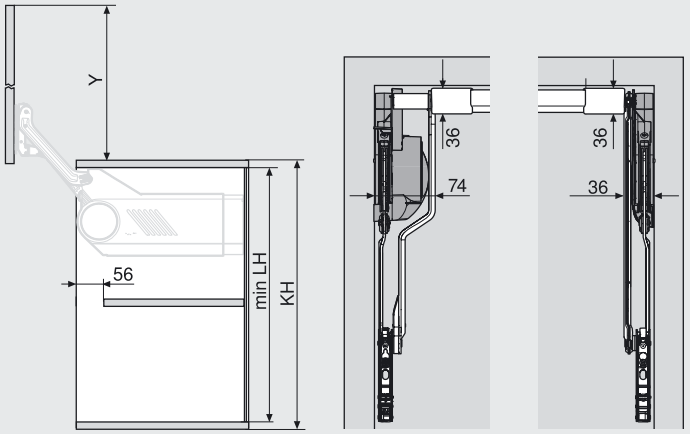
[1)] Only on the left side

* Drilling depth 5 mm

** Alternative drilling

SOB Top panel thickness

Space requirement



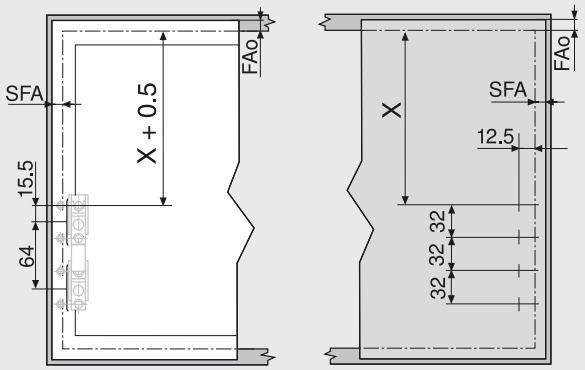
Lever arm	min LH (mm)*	Y (mm)*
21L3200	262	264
21L3500	312	352
21L3800	362	440
21L3900	412	529

LH Internal cabinet height

KH Cabinet height

* Dimensions apply to lower gap = 0 mm

Front assembly



Narrow alu frames

Wooden fronts and wide alu frames[2)]

Lever arm	X (mm)
21L3200	153
21L3500	203
21L3800	253
21L3900	303

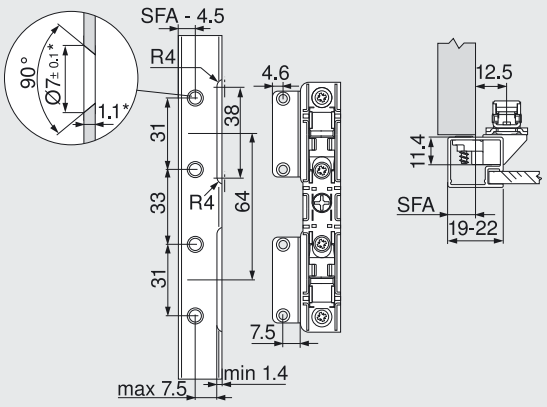
FAo Upper front overlay

SFA Side front overlay

If cabinet is mounted against wall on left/right, then a 5 mm (min.) gap between edge of frontal & wall is required.

[2)] Use 4 chipboard screws (609.1x00) for wooden fronts.
Use 4 self tapping screws (608.085) for wide alu frames.

Planning narrow alu frames

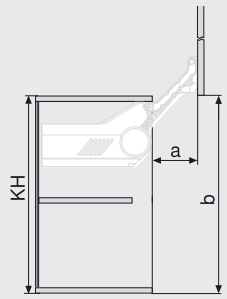


SFA Side front overlay

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

* When changing material thickness, adjust the assembly dimensions accordingly

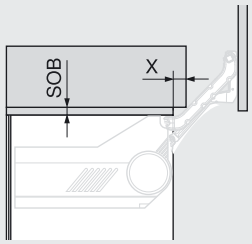
Front setting



Lever arm	a (mm)*	b (mm)*
21L3200	114	257
21L3500	146	345
21L3800	178	433
21L3900	210	522

* Dimensions apply to lower gap = 0 mm

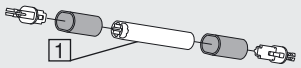
Cornice/Crown moulding clearance



SOB (mm)	X (mm)
16	28
18	30
19	31

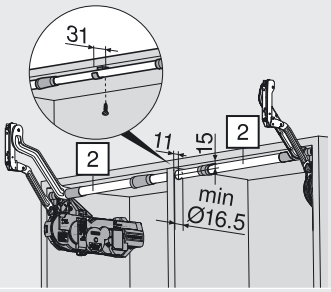
SOB Top panel thickness

Cross stabiliser



[1] KB (KS 16–19 mm) -193 mm
and/or inner width -155 mm

Connecting piece

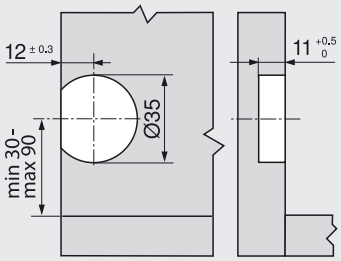


[2] half KB (KS 16–19 mm) -193 mm

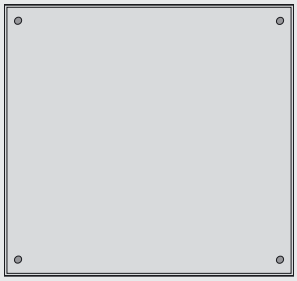
KB Cabinet width

KS Cabinet thickness

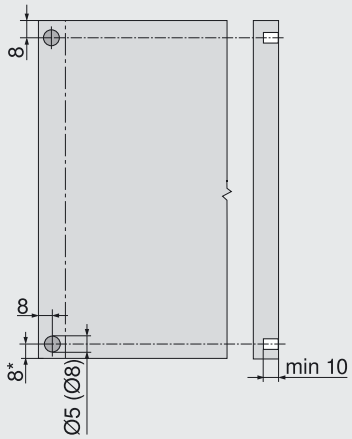
SERVO-DRIVE switch



Blum distance bumper



Blum distance bumper drilling position



* From cabinet front edge for fronts that protrude below

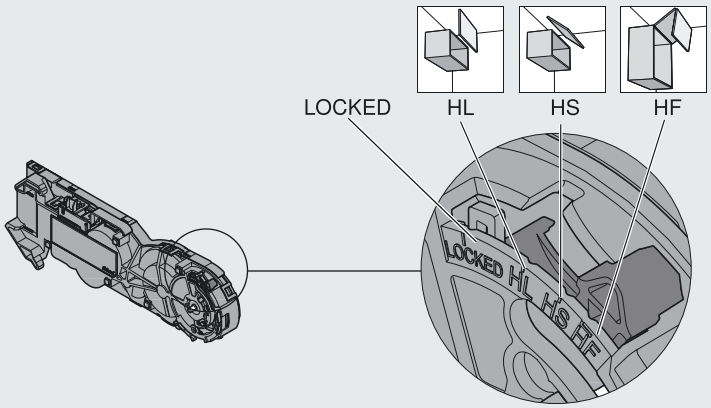
Recommendation for aluminium frames:
consider drilling the Blum distance bumper into the cabinet end panel. A trial application must be carried out when fixing the Blum distance bumper to the front.

i Do not glue Blum distance bumper.

Blum distance bumper assembly, see page 46

Assembly

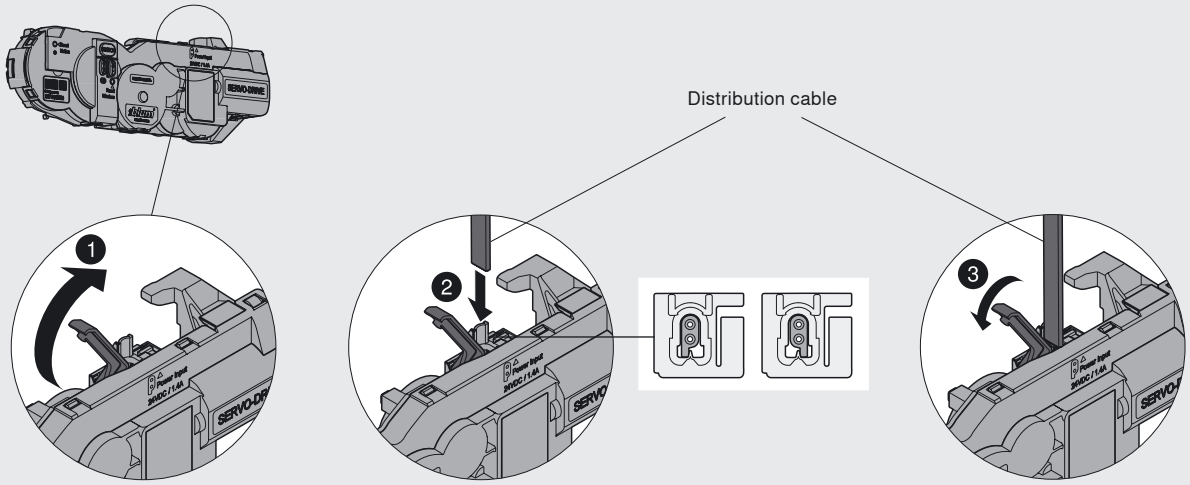
Drive unit adjustment



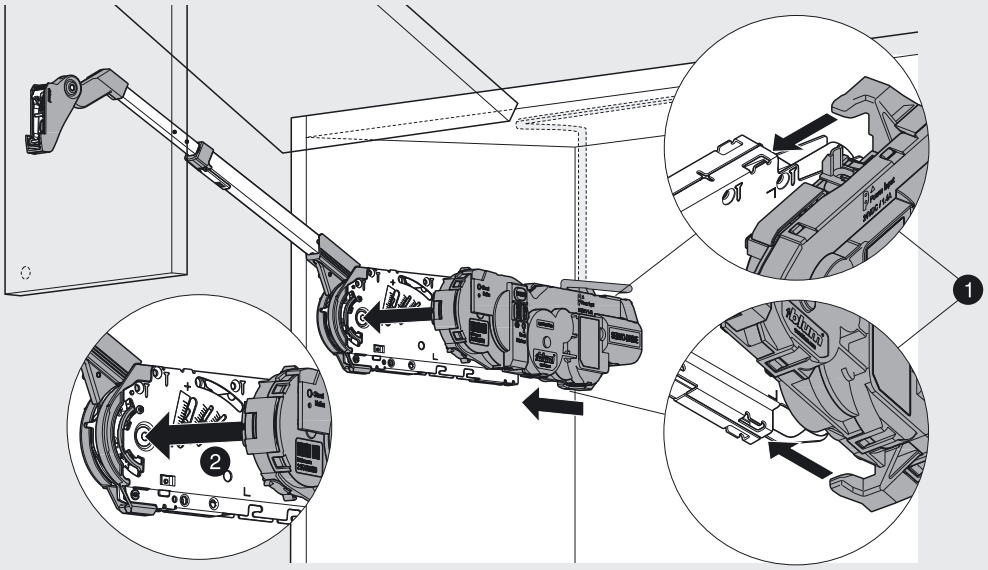
Before SERVO-DRIVE for AVENTOS installation, the lift mechanisms must be adjusted so that the fronts stay in any given position without opening or closing of their own accord.

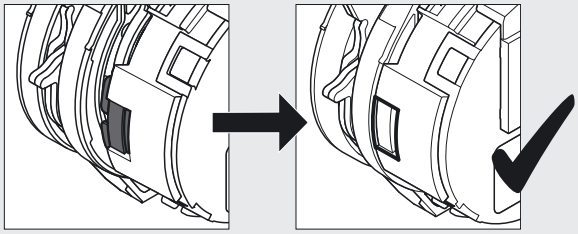
The AVENTOS lever arm must be in the completely open position for drive unit installation. Attach the opening angle stop (if required) only after drive unit installation and before the reference run.

Distribution cable installation



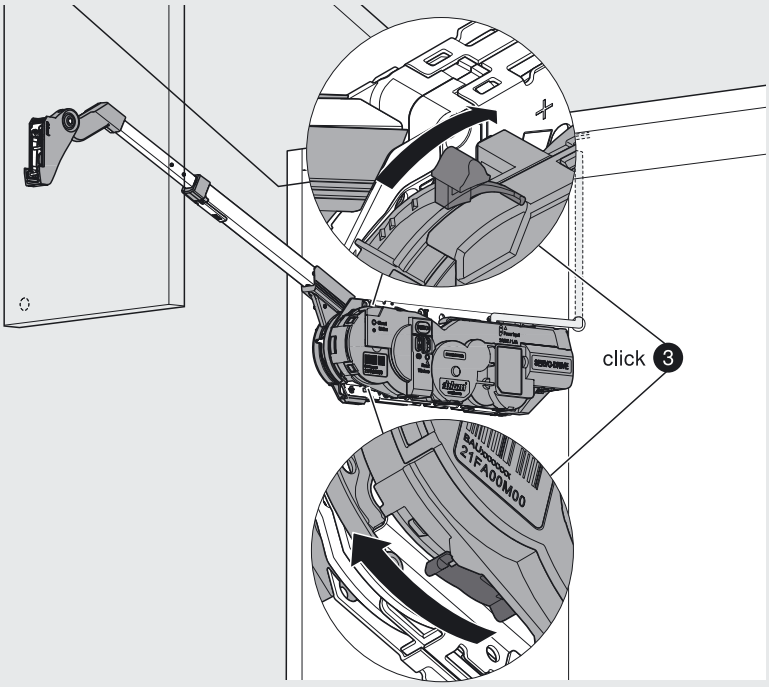
Drive unit installation





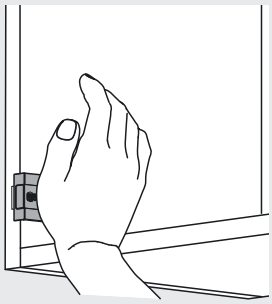
The drive unit can be locked when the orange slide is no longer visible in the view window.

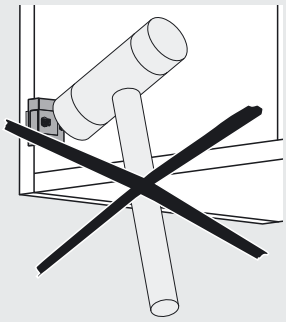
Drive unit lock



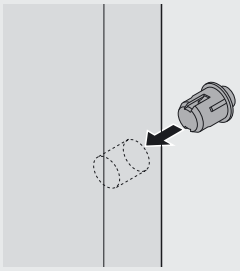
Assembly

SERVO-DRIVE switch installation

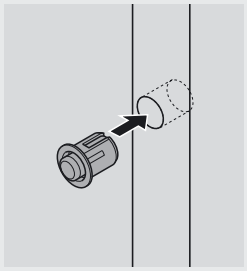




Blum distance bumper assembly



Installation in the front

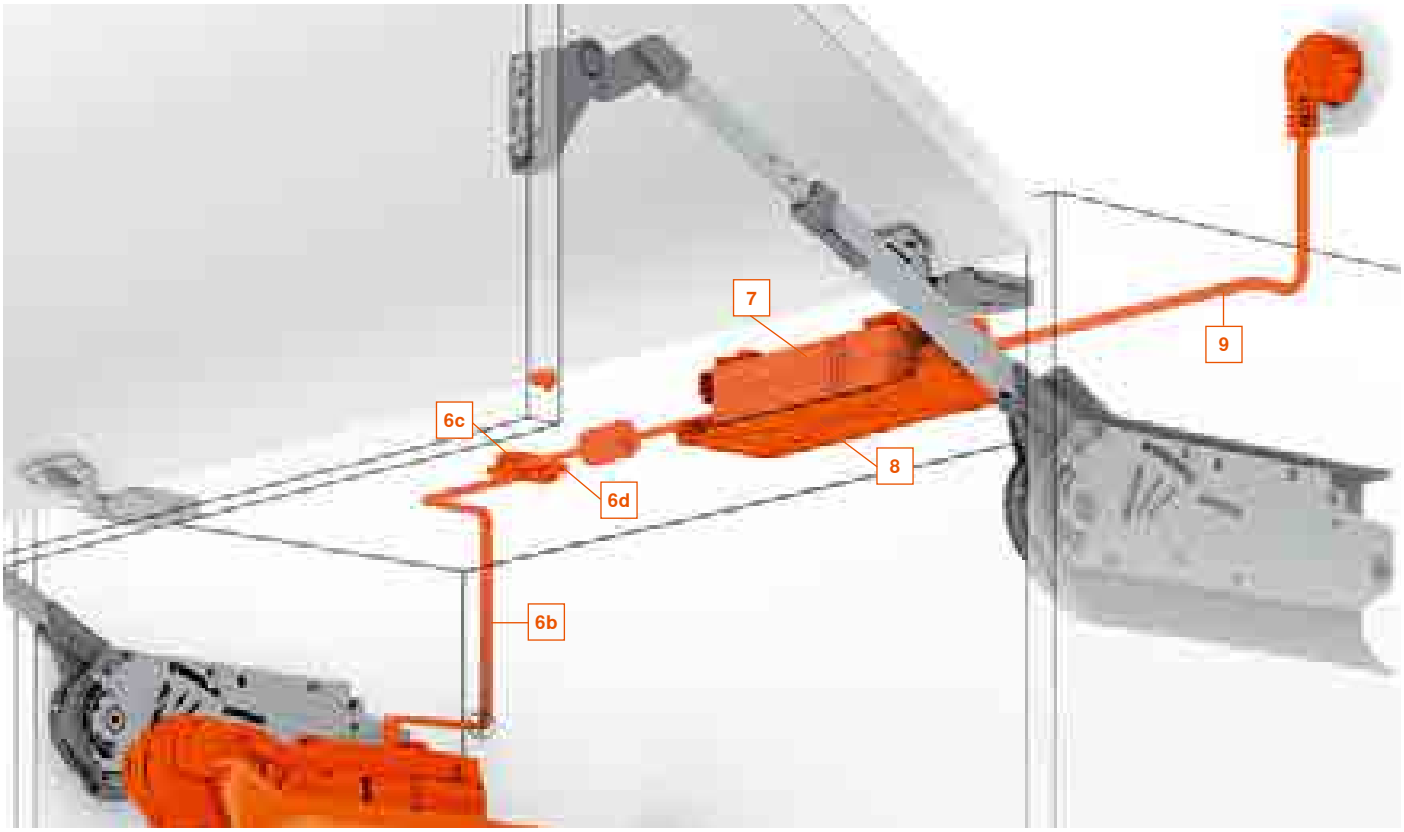


Aluminium frame:
Installation in the cabinet side

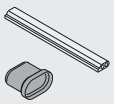
i Do not glue the Blum distance bumper.

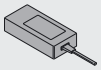
Order specification

Blum transformer and accessories



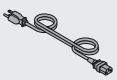
6c, 6d	Connecting node + cable end protector	
	Black	
		Z10V100E

6b, 6d	Distribution cable for cutting to size + cable end protector	
	Electrical cable length 8 m with 5 pcs cable end protector	Z10K800AE
	Can be used as a distribution cable	

7	Blum transformer	
		
		Z10NE050.01

8	Transformer unit housing for panel fixing	
	RAL 7037 dust grey	
		Z10NG100

	Cable holder	
	Using the cable holder, the distribution cable can be easily managed to keep everything tidy and safe.	
	White	Z10K0009

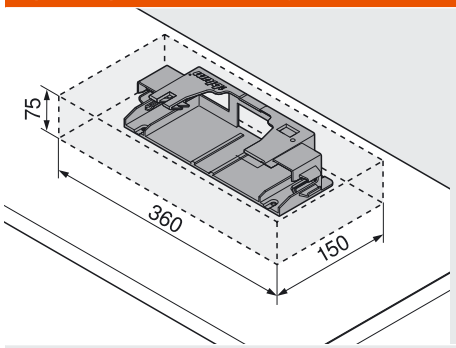
9	Flex	
		
	Flex Europe	Z10M200E
	Flex CH	Z10M200C
	Flex US, CA	Z10M200U
	Flex JP	Z10M200J
	Flex BR	Z10M200S
	Flex BR	Z10M200S.01
	Flex UK	Z10M200B
	Flex DK	Z10M200D
	Flex IL	Z10M200I
	Flex AU	Z10M200K
	Flex CN	Z10M200N
	Flex AR	Z10M200A
	Flex IN	Z10M200H
	Flex CL	Z10M200L
	Flex TW	Z10M200T
	Flex ZA	Z10M200Z
	Flex Europe without plug	Z10M200E.OS
	Flex US, CA without plug	Z10M200U.OS

The instruction leaflet and installation instructions will be provided with each order through your Blum supplier.

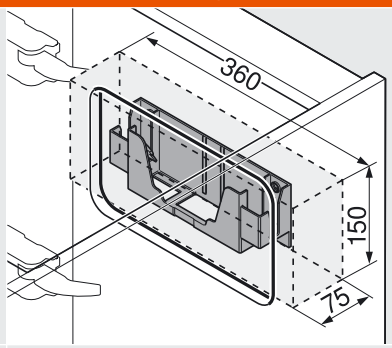
Assembly

Blum transformer and accessories

Space requirement and safety distance for Blum transformer unit housing



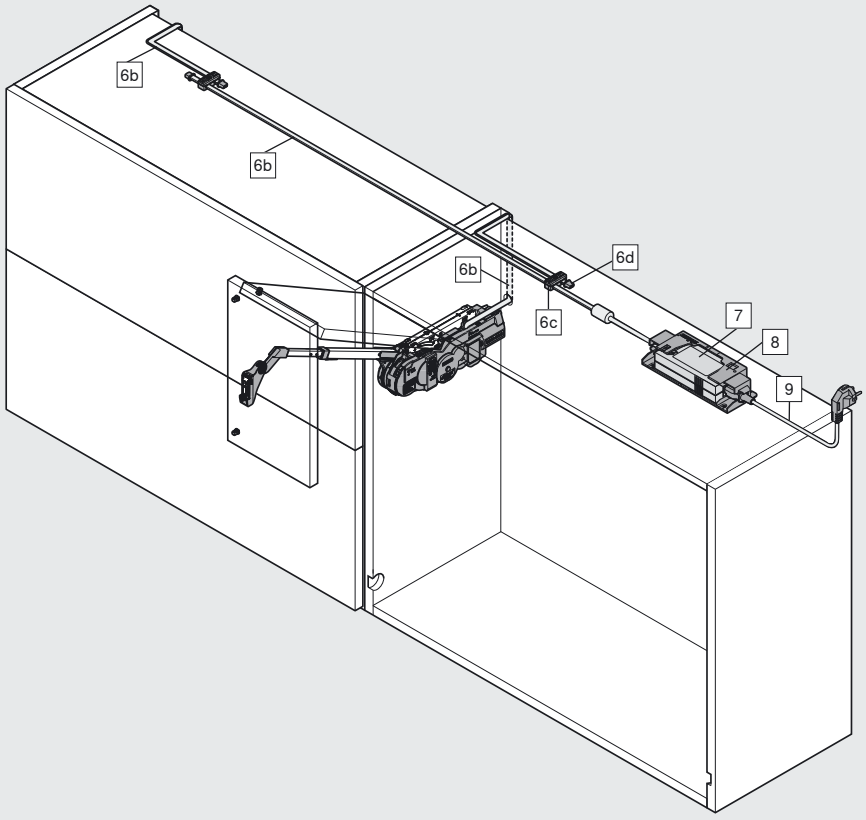
Assembly on the top panel



Assembly in combination with SERVO-DRIVE for pull-out systems

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

Assembly on the top panel

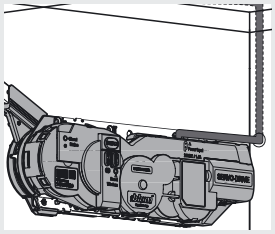


- 6b Distribution cable for cutting to size
- 6c Connecting node
- 6d Cable end protector
- 7 Blum transformer
- 8 Transformer unit housing
- 9 Flex

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

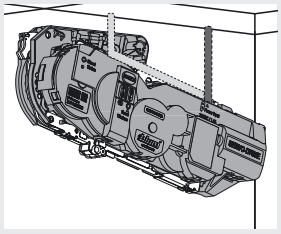
Back cabling

Recommended



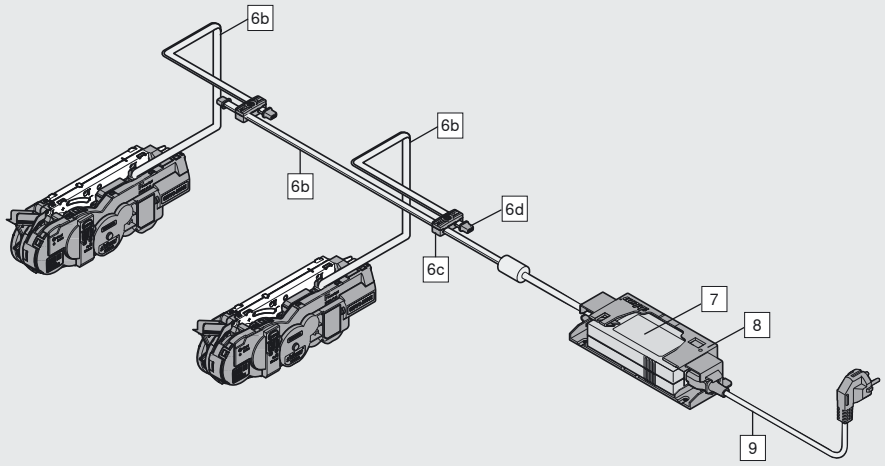
Upper cabling

Optional

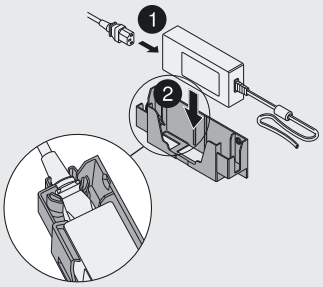


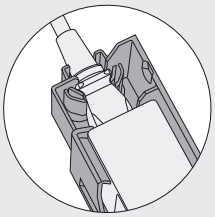
Cabinet front edge to centre of drilling
HF: 167 mm
HS: 69 resp. 167 mm
HL: 74.5 resp. 167 mm

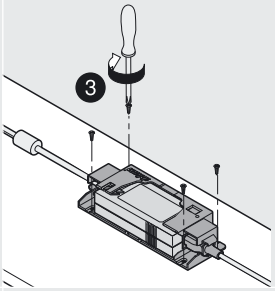
Cable diagram for two cabinets



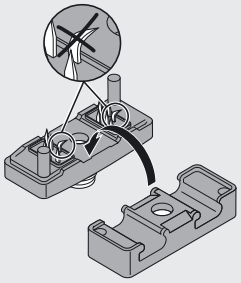
Transformer unit housing

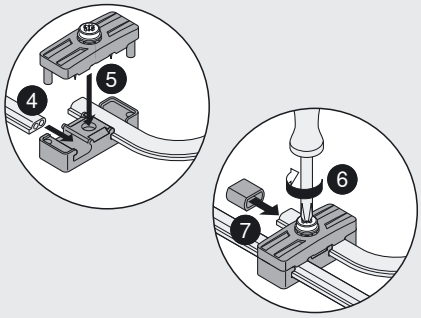


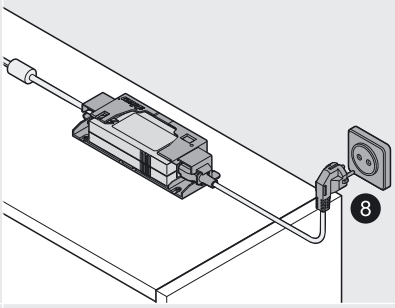




Pull-out stop





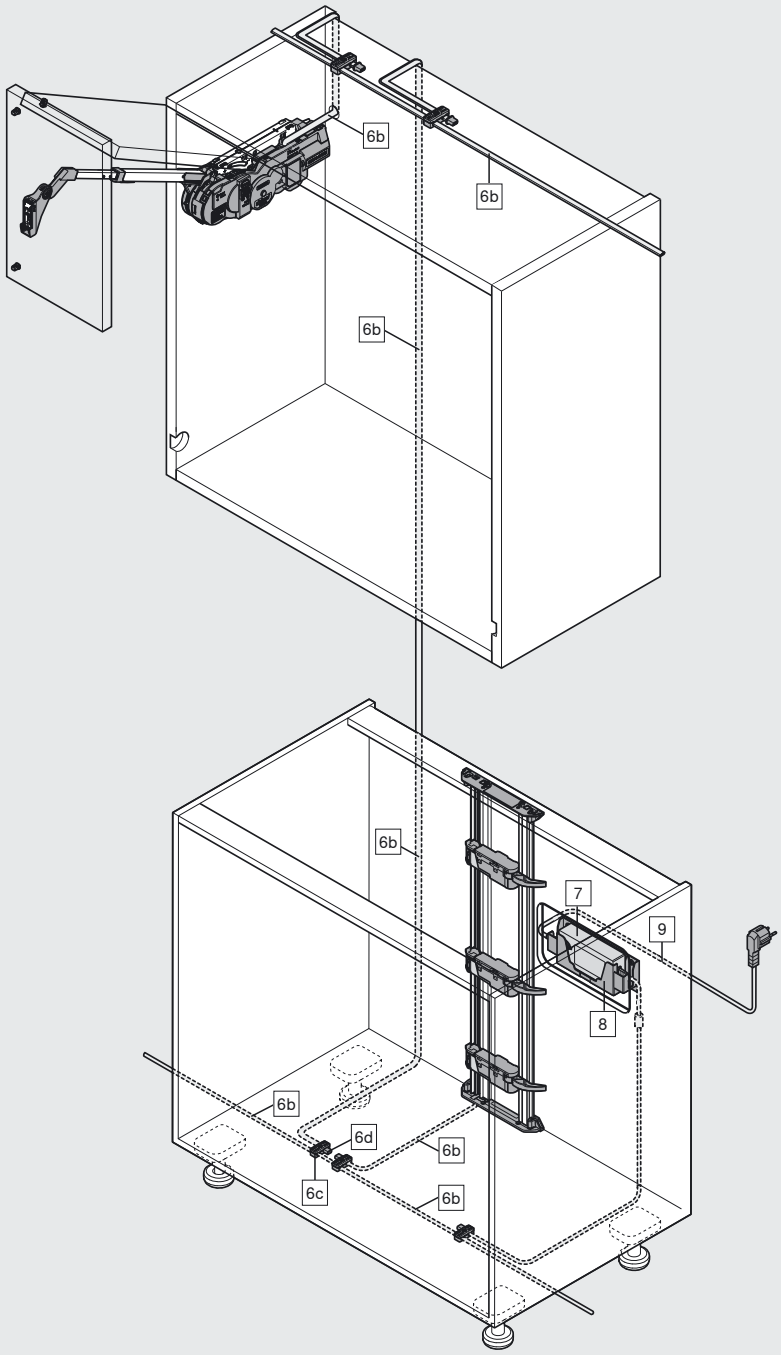


Do not damage piercing pins

Assembly

Blum transformer and accessories

Assembly in combination with SERVO-DRIVE for pull-out systems



- 6b Distribution cable for cutting to size
- 6c Connecting node
- 6d Cable end protector
- 7 Blum transformer
- 8 Transformer unit housing
- 9 Flex

i Only one Blum transformer can be connected to each distribution cable.

Overview of functions for SERVO-DRIVE for AVENTOS

Start-up

A Activating the SERVO-DRIVE switch

B Start reference run

Optional

Additional features

C Activating synchronisation

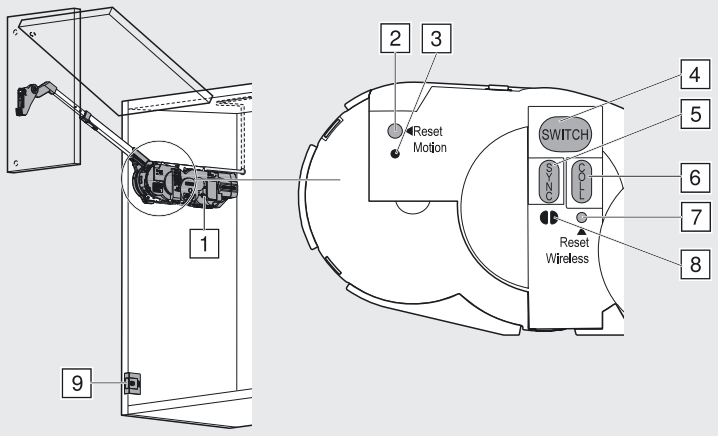
D Activating collision avoidance

Deactivation

E Reset Motion

F Reset Wireless

Button layout

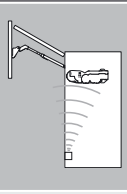


1 Drive unit
2 <Reset Motion> button
3 Motion LED
4 <SWITCH> button
5 <SYNC> button
6 <COLL> button
7 <Reset Wireless> button
8 Wireless LED
9 SERVO-DRIVE switch

SERVO-DRIVE for AVENTOS start-up

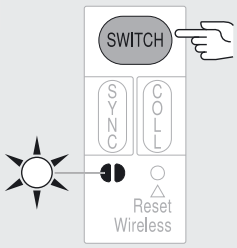
Operation | Lights up continuously | Flashes

A Activating the SERVO-DRIVE switch



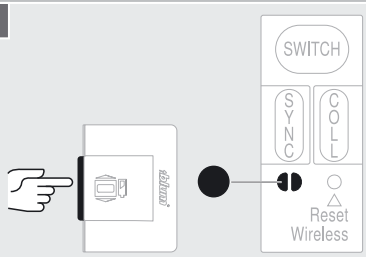
Setting up the wireless connection between the SERVO-DRIVE switch and the drive unit.
Each switch can only be assigned to one SERVO-DRIVE unit.

1



Press the <SWITCH> button until the LED flashes

2



Press the SERVO-DRIVE switch until the LED lights up continuously

3

Repeat procedure A 1–2 for additional SERVO-DRIVE switches in the cabinet.

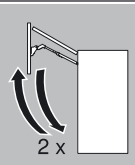
Additional features

Optional

C Activating synchronisation

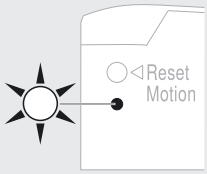
D Activating collision avoidance

B Start reference run



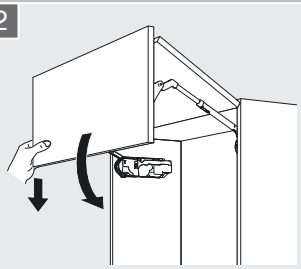
The drive unit recognises the required parameters using the reference run.

1



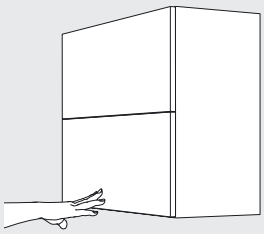
Reference run is required:
LED flashes

2



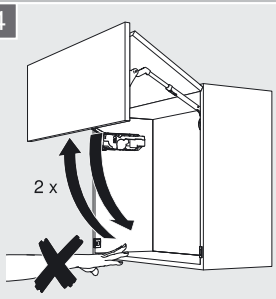
Close the front manually

3



Press on front:
The reference run starts automatically

4

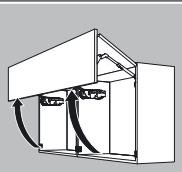


Front opens and closes 2x automatically: Under no circumstances should you try to manually interrupt or stop the process

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

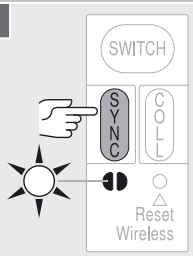
SERVO-DRIVE for AVENTOS additional features

C Activating synchronisation



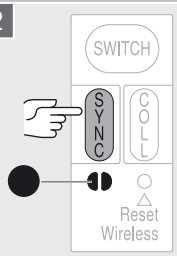
Up to three drive units can be synchronised with one transformer allowing them to move simultaneously.
This function is required for several cabinets with a shared front.

1



Press the <SYNC> button on the 1st drive unit until the LED flashes

2

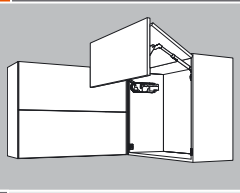


Press <SYNC> on the 2nd drive unit until the LEDs on both synchronised drive units light up continuously

3

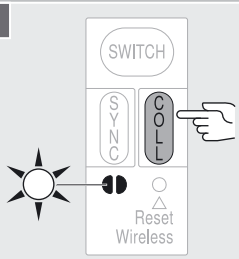
Repeat procedure C 1–2 for all additional drive units.

D Activating collision avoidance



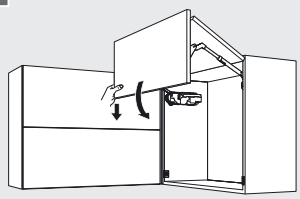
To avoid the collision of fronts, drive units (max. 6) are linked so that only one front can be opened at a time.
A front is prevented from opening as long as a linked front remains open.

1



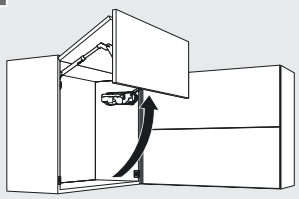
Press the <COLL> button on the 1st drive unit until the LED flashes

2



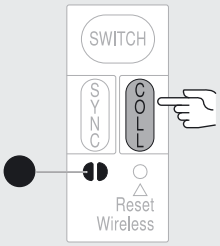
Close the front manually

3



Manually open the front of the unit to be linked

4



Press <COLL> on the 2nd drive unit until the LED lights up continuously (the same will happen in the first cabinet).

5

Repeat procedure D 1–4 for all additional cabinets.

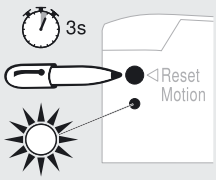
Deactivating SERVO-DRIVE for AVENTOS

Flashes quickly

E Reset Motion

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

1

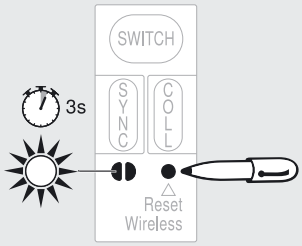


Press the <Reset Motion> button using a pen (at least 3 seconds) until the LED flashes quickly.

F Reset Wireless

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

1



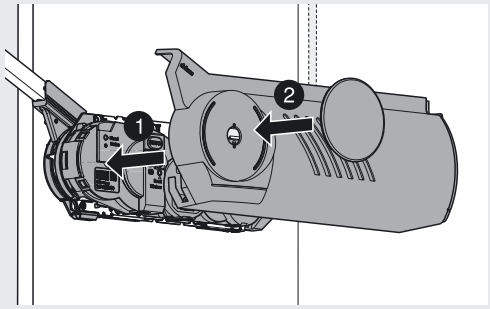
Press the <Reset Wireless> button using a pen (at least 3 seconds) until the LED flashes quickly.

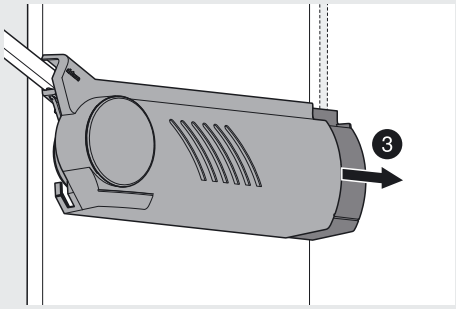
Motion LED signals		
☀	Flashes orange	Reference run is required
●	Lights orange continuously	Power available
		Operating mode display
		Reference run successfully completed
☀	Flashes orange quickly	Reset Motion confirmation

Wireless LED signals		
☀	Flashes green	Activation mode
●	Lights up green continuously	Activation confirmation
☀	Flashes green quickly	Deactivation confirmation
●	Lights up continuously red	Last process was not completed successfully

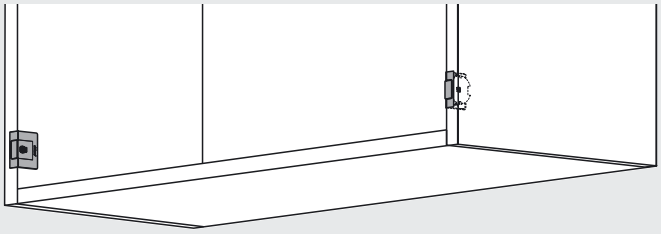
Cover cap assembly, Battery replacement

Cover cap



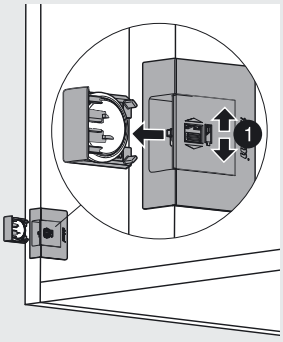


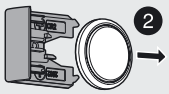
Battery replacement

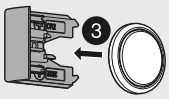


- Only use type CR2032 batteries from known manufacturers.
- Make sure that the new battery is inserted correctly (note proper pole connections +/-).
- The SERVO-DRIVE switch battery must not be recharged or thrown into fire.

i When battery power begins to weaken, the SERVO-DRIVE switch battery display flashes red.

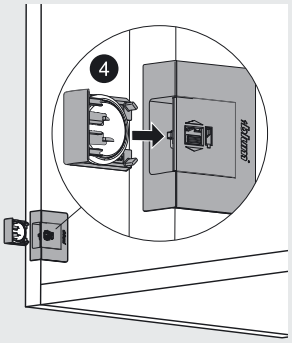






Insert new battery

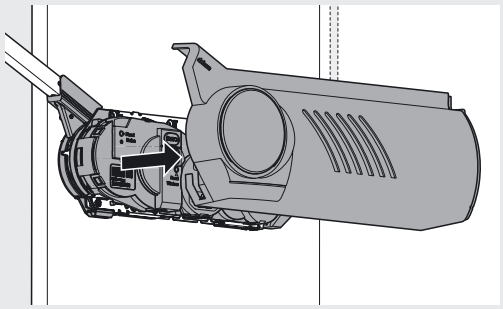
i Please note proper pole connections (+/-)



i If the battery is inserted incorrectly, the SERVO-DRIVE switch battery display flashes red.

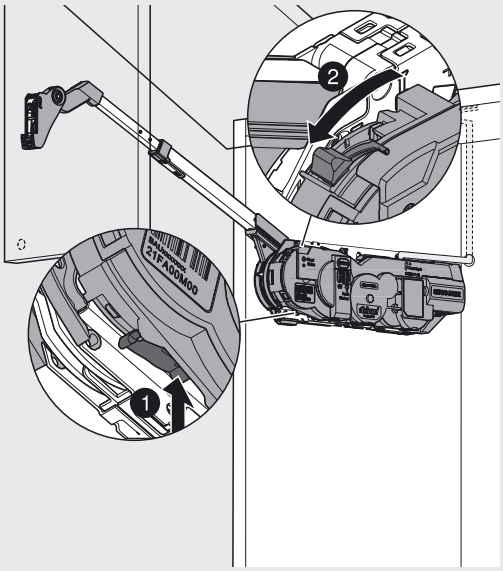
Removal

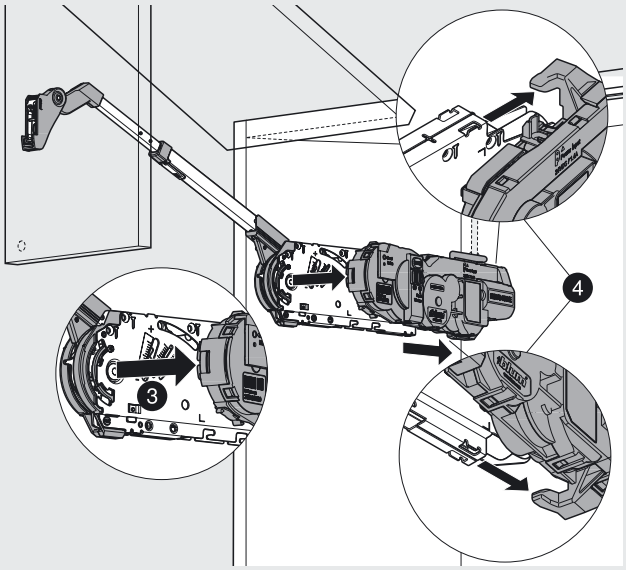
Drive unit removal

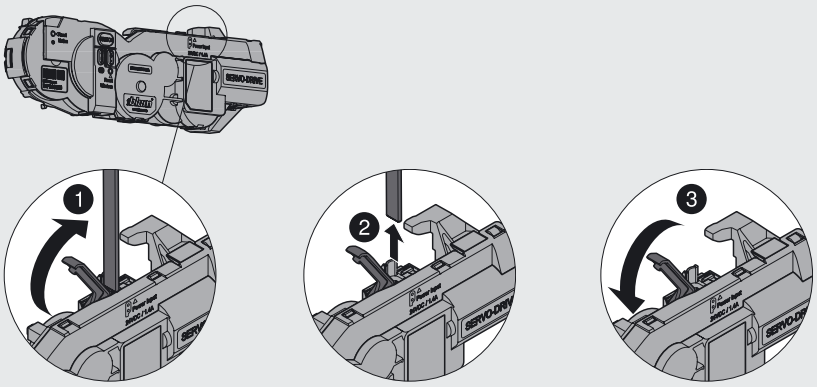


DANGER

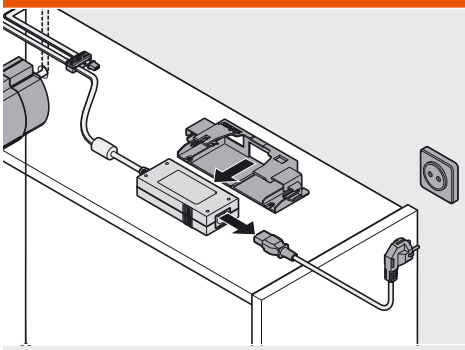
- Before starting repair or maintenance work, unplug the Blum transformer to disconnect the power.
- Never open a Blum transformer. There is a danger of electric shock.

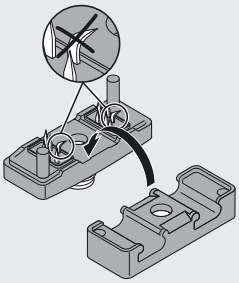


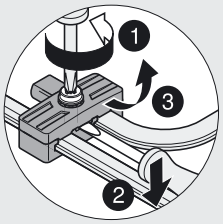




Removal of Blum transformer and accessories







i Do not damage piercing pins

Perfecting motion

Our understanding of perfect motion

Blum turns the opening and closing of furniture into an experience that significantly improves this experience within the kitchen. Several thousand employees are continually working worldwide implementing our concept of perfect motion. Within this process, we place the needs of the kitchen user as the focus of our actions. We are only satisfied when the kitchen user is satisfied. All of our partners who participate in the furniture making process profit from this focus.

For over 50 years, quality has been the highest principle for the development and manufacture of our products. Our fittings systems shout “high quality” with their superbly engineered function, recognised design and high durability. They are designed to inspire and trigger fascination for perfect motion. We also set the bar very high for the services we offer. They must provide the best possible support to our partners.

So that we can target our efforts at all levels, we are in a constant dialogue with kitchen users and regularly exchange information with furniture manufacturers, joiners and distributors.

Blum Fittings

For the lifetime of your kitchen

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ISO 14001 CERTIFIED ENVIRONMENTAL SYSTEM

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