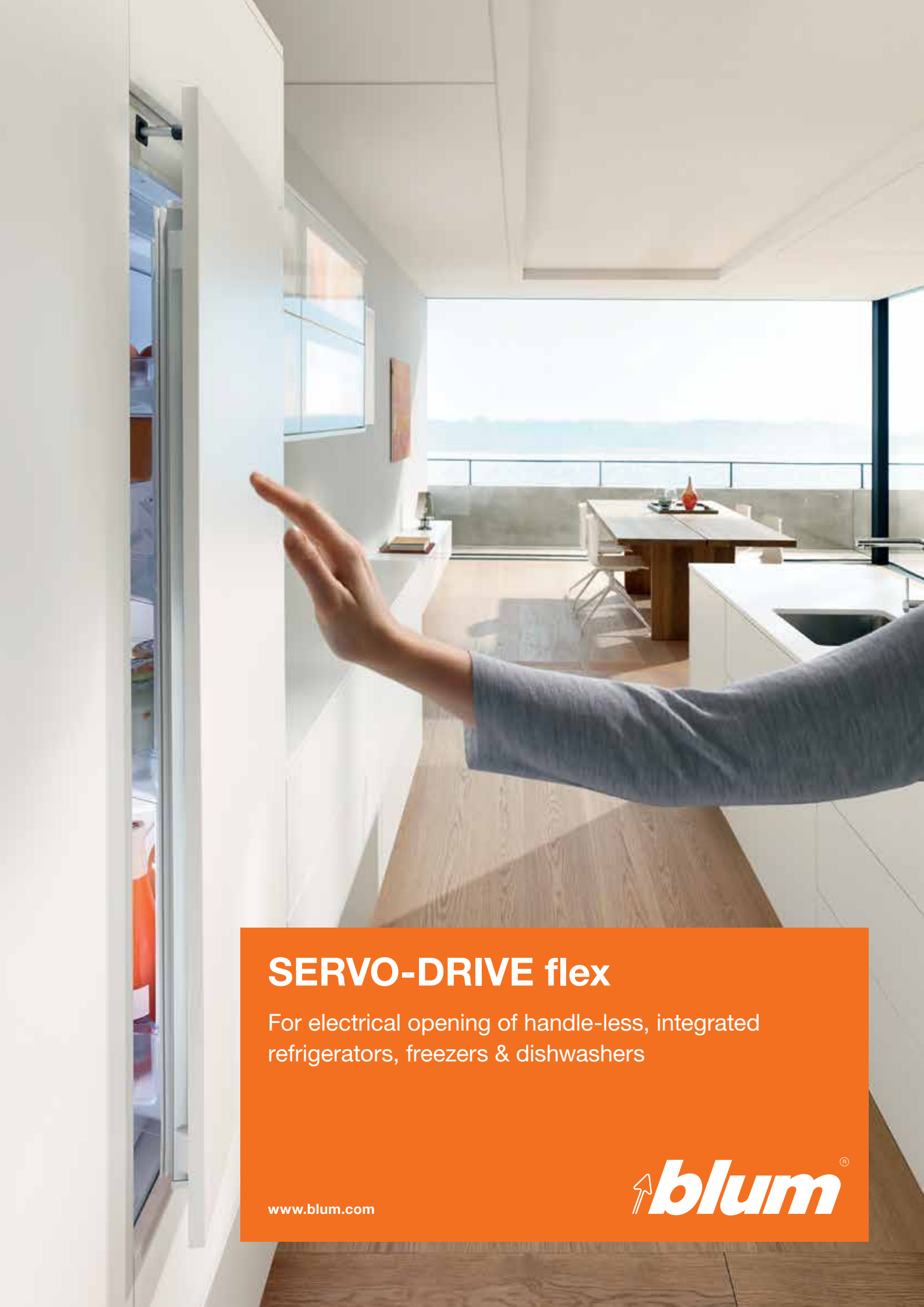
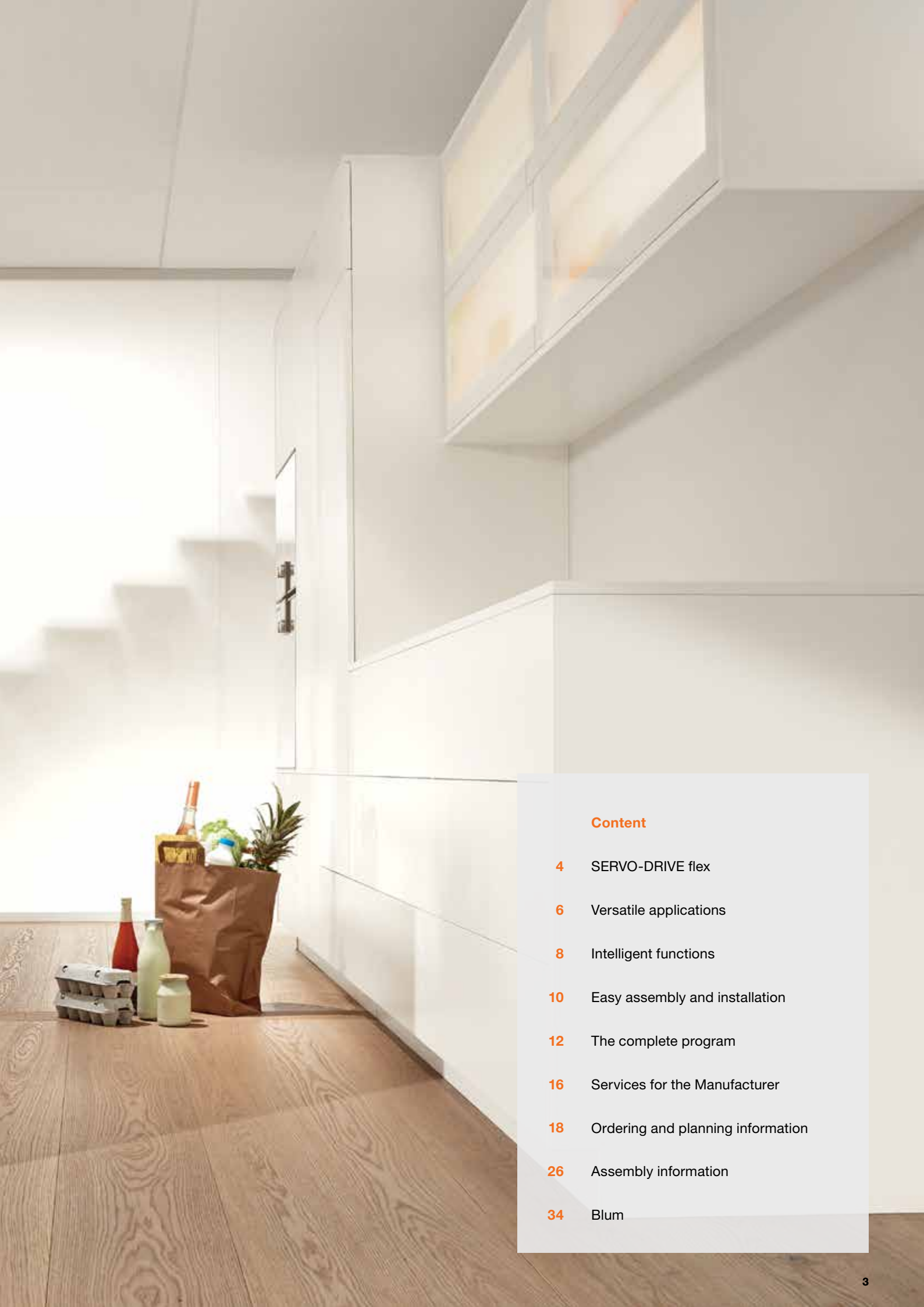


SERVO-DRIVE flex

For electrical opening of handle-less, integrated refrigerators, freezers & dishwashers

www.blum.com

blum®



Content

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8 Intelligent functions

10 Easy assembly and installation

12 The complete program

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18 Ordering and planning information

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34 Blum

Handle-less kitchen designs

SERVO-DRIVE functionality now extends to built-in appliances providing a complete solution for handle-less kitchen designs. With SERVO-DRIVE flex integrated refrigerators, freezers and dishwashers disappear stylishly behind furniture fronts.

SERVO-DRIVE Flex

Easy opening of integrated appliances is assured by SERVO-DRIVE flex, the electrical motion support system for built-in refrigerators, freezers and dishwashers.

Flexible options for use

Whether left or right opening, sliding or fixed door installation applications, SERVO-DRIVE flex can be used with standard integrated refrigerators, combination fridge/ freezers, freezers and dishwashers.

Versatile applications

The SERVO-DRIVE flex drive unit is suitable for a variety of applications. Depending on the application of the integrated appliance, two drive units may be required.

SERVO-DRIVE flex is suitable for refrigerator heights up to 1780 mm and freezer heights up to 1580 mm For taller applications an additional SERVO-DRIVE flex drive unit is recommended.

NB: SERVO-DRIVE flex is not suitable for use with drawer fridges, freezer NH1780 with the cooling unit on the bottom or integrated refrigerators or freezers without a cabinet.

Combination fridge/ freezer application

Each door in the combination fridge/ freezer is fitted with a separate SERVO-DRIVE flex unit and can therefore be opened individually.

Large and heavy doors

Using two synchronised SERVO-DRIVE flex drive units on large and heavy refrigerator or freezer applications ensures reliable opening at the same time.

Dishwasher application

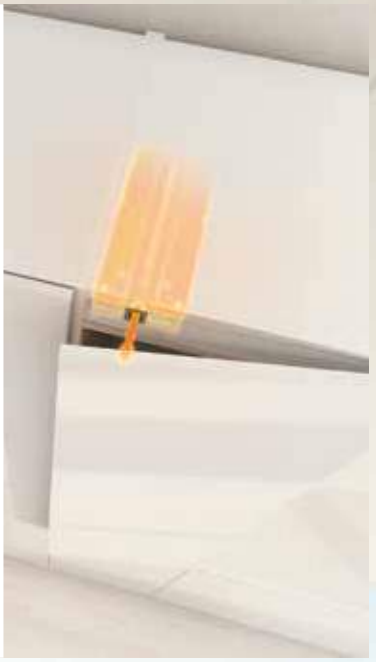
When using SERVO-DRIVE flex with integrated dishwashers, the drive unit is mounted in the centre of the installation recess.

Intelligent functions

SERVO-DRIVE flex is a well-conceived system which is designed specifically to suit the demands of everyday kitchen use. Handle-less integrated appliances can be used easily and conveniently. SERVO-DRIVE flex differentiates between short pressing actions. The lean protection prevents accidental triggering of the opening support system.

Adaptive system

SERVO-DRIVE flex automatically adapts to suit the door properties. This ensures that the door always opens reliably.



Automatic self-closing

If the door is not fully opened after triggering the opening support system, the magnetic rod pulls the front shut again. This ensures that the door does not remain open accidentally.

Trigger safety

After opening, the rod retracts into the drive unit so the working area remains free. The opening function is not triggered again until pressure is applied to the front.

Easy assembly and installation

SERVO-DRIVE flex is assembled and installed easily and conveniently in just a few steps. Simply attach the mounting plates and clip on the drive unit, connect the unit to the power supply, mount the front and setting the drive unit. The SERVO-DRIVE power cable is connected to the power supply via the familiar connecting node system (plug and play system). If the drive unit needs to be accessed after installation the front cover can easily be unclipped.

Mounting plates

A mounting plated is attached to both left and right hand sides in the installation recess.

SERVO-DRIVE flex drive unit

The drive unit is clipped onto either the left or right mounting plate, depending on the door opening.

The front cover

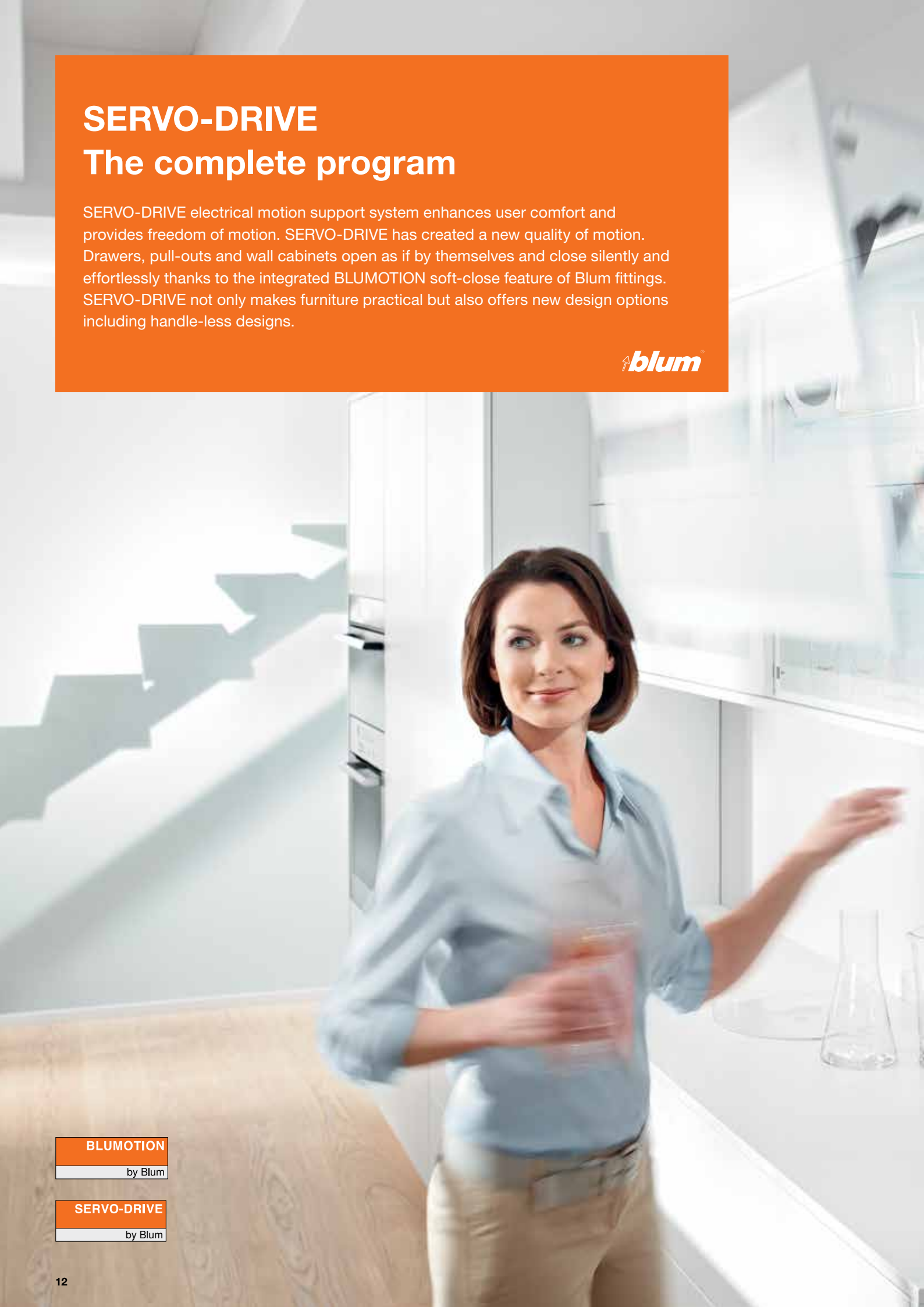
The front cover is clipped directly onto the mounting plates.

Adaptive drive unit

During the reference run, the drive unit adjusts itself to the installation application. Once complete SERVO-DRIVE flex is ready for use.

SERVO-DRIVE
The complete program

SERVO-DRIVE electrical motion support system enhances user comfort and provides freedom of motion. SERVO-DRIVE has created a new quality of motion. Drawers, pull-outs and wall cabinets open as if by themselves and close silently and effortlessly thanks to the integrated BLUMOTION soft-close feature of Blum fittings. SERVO-DRIVE not only makes furniture practical but also offers new design options including handle-less designs.



BLUMOTION
by Blum

SERVO-DRIVE
by Blum

SERVO-DRIVE for drawers/pull-outs

When drawers and pull-outs are fitted with SERVO-DRIVE a light touch on handle-less fronts or gentle pull on handles is enough to trigger the opening sequence.

Available for LEGRABOX, TANDEMBOX, MOVENTO and TANDEM drawer systems.

SERVO-DRIVE for AVENTOS

Wall cabinets open with a light touch on the front with SERVO-DRIVE for AVENTOS.
A special feature of SERVO-DRIVE for AVENTOS is that lift systems close automatically with the press of a button.

Available for AVENTOS HF, AVENTOS HS, AVENTOS HL and AVENTOS HK lift systems.

SERVO-DRIVE uno

SERVO-DRIVE uno is a simple way to add our electrical motion support to a single drawer/ pull-out. This is especially practical for frequently used pull-outs such as the waste bin pull-out. It can be opened with your knee, hip or foot.

Uniform technology

Whether used with Blum's drawer systems in base cabinets, AVENTOS lift systems in wall cabinets or together with integrated applicances the SERVO-DRIVE technology is the same. One system is used for all applications throughout the kitchen. One transformer can connect the individual drawer/pull-out, AVENTOS and SERVO-DRIVE flex drive units

NB: One SERVO-DRIVE transformer connects up to 50 drawers/pull-outs. The transformer can also be connected to SERVO-DRIVE for AVENTOS (equivalent to 3 drive units for drawers) and SERVO-DRIVE flex drive units (equivalent to 1 drive unit for drawers). I.e. one transformer can connect 43 drawers, 2 AVENTOS lift systems and 1 SERVO-DRIVE flex (single) application.

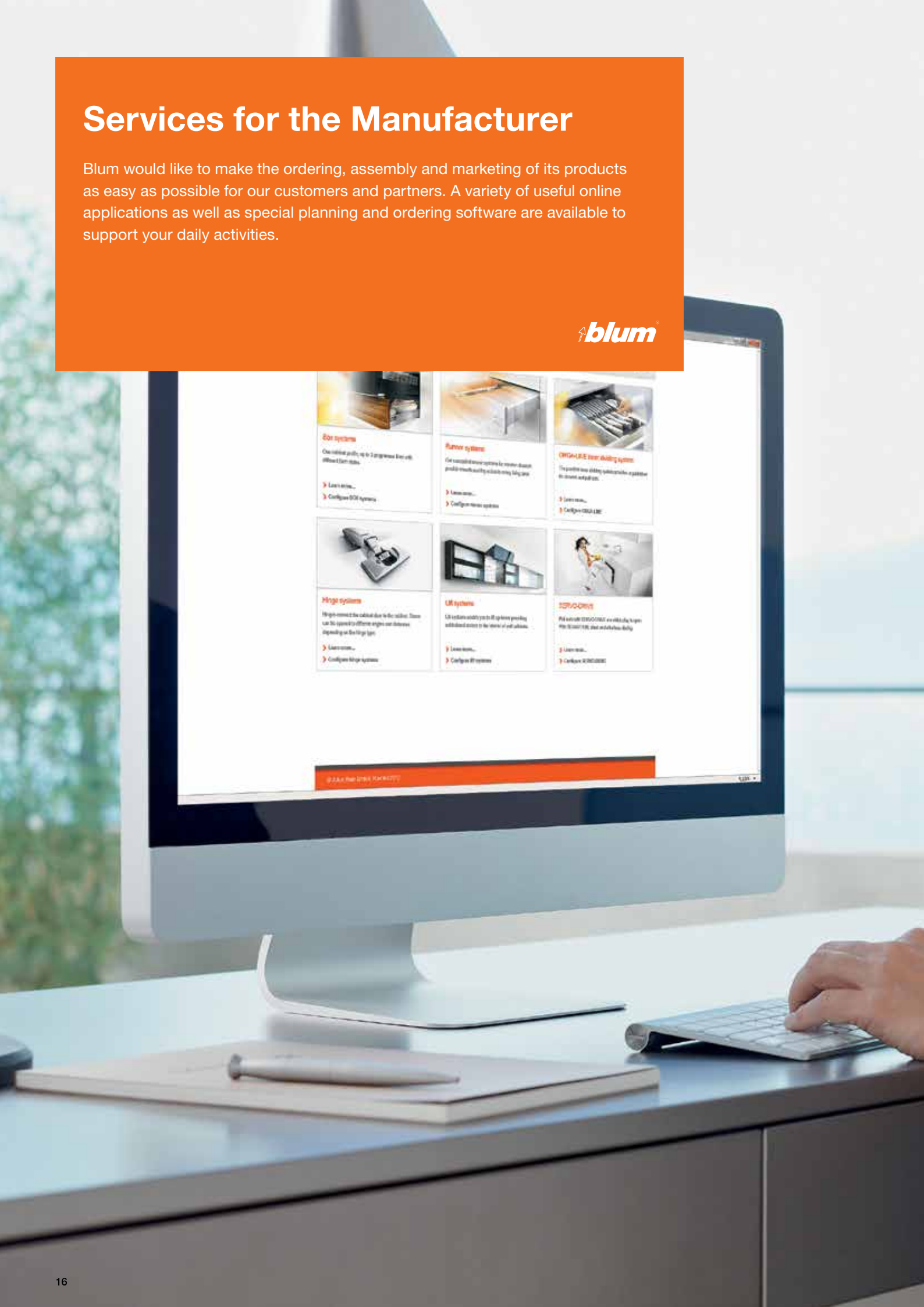
One system is used in all SERVO-DRIVE applications throughout the kitchen.

SERVO-DRIVE flex refrigerator application connected to SERVO-DRIVE transfomer (base mounted).

SERVO-DRIVE flex dishwasher application connected to the SERVO-DRIVE transfomer (panel mounted)

Services for the Manufacturer

Blum would like to make the ordering, assembly and marketing of its products as easy as possible for our customers and partners. A variety of useful online applications as well as special planning and ordering software are available to support your daily activities.



Online Product configurator

The online product configurator assists with the selection and ordering of the correct fittings. Along with parts lists for your desired fitting solution, you also get marketing information, manufacturing and assembly documentation as well as 2D/3D CAD data.
www.blum.com/productconfigurator

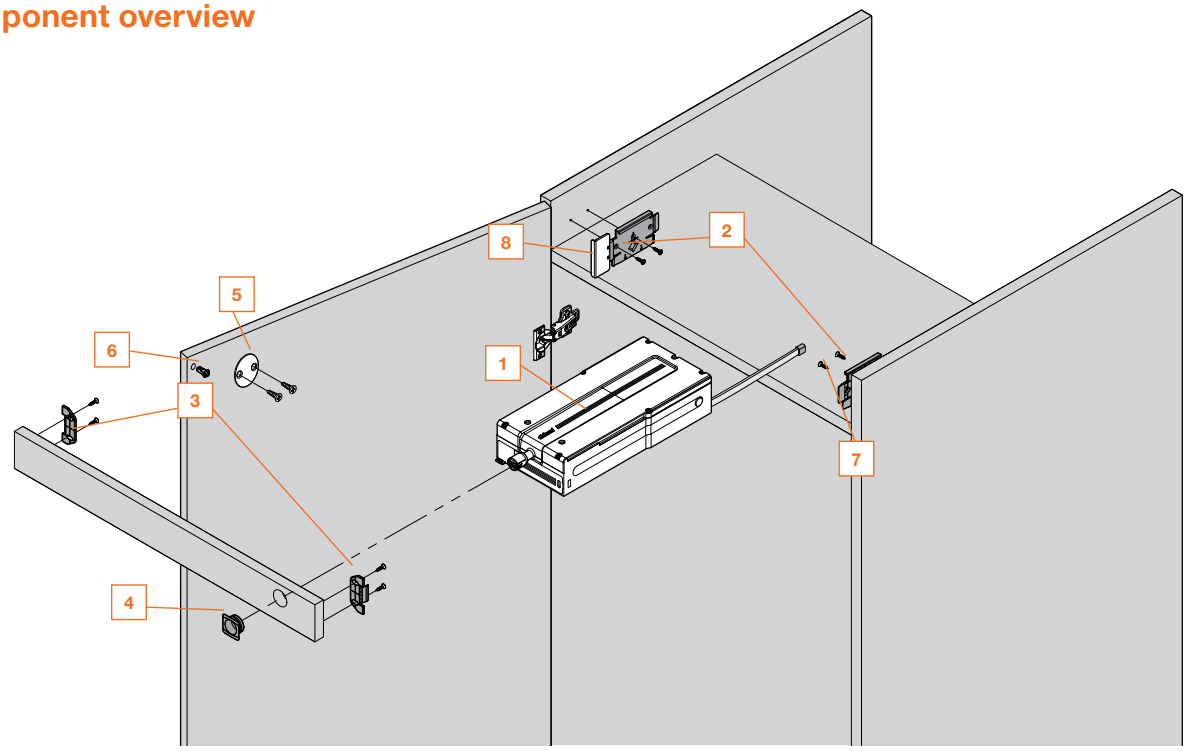
DYNALOG

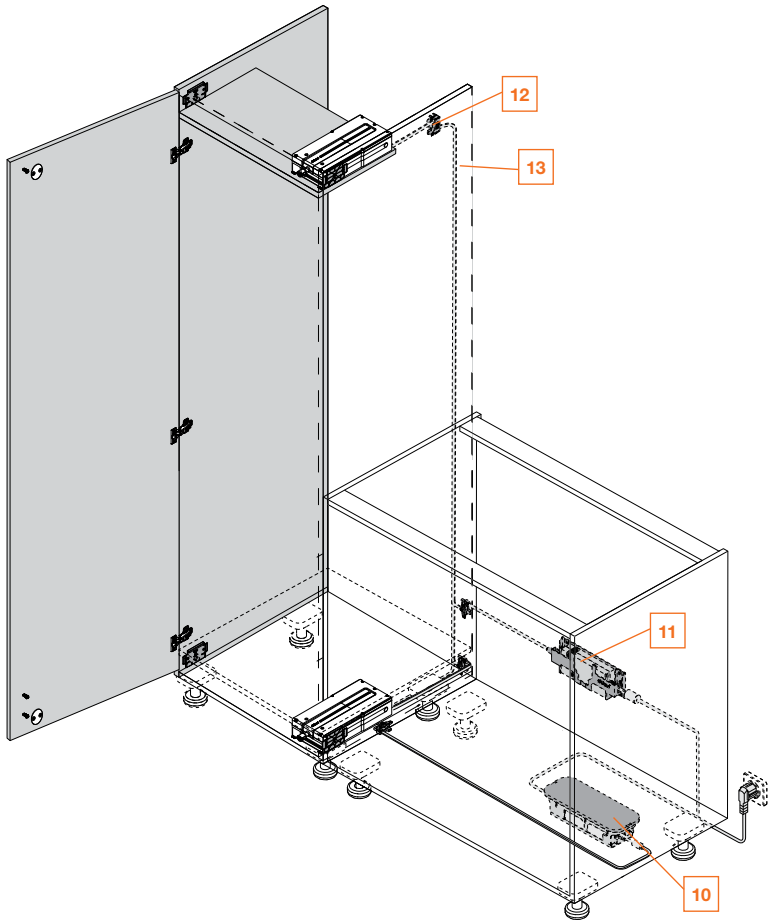
Using the Blum planning software, cabinet planning for Blum fittings is complete, precise and achieved with ease. The program can be operated intuitively. Automatic collision checks ensure designs are feasible and do away with trial applications. DYNALOG is available for complimentary download from the Blum website;
www.blum.com/services

DYNAPLAN interfaces

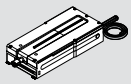
Complete plans can be exported and imported to or from your CAD or CAM system at the touch of a button via interfaces in DYNAPLAN. In this way, DYNAPLAN supports your main program with both every-day solutions as well as special constructions.

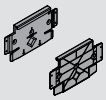
Component overview

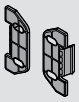




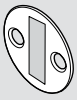
SERVO-DRIVE flex set

1	Drive unit 1x
	Drive unit opens handle-less refrigerators, freezers and dishwashers.

2	Mounting plate 2x
	Mounting plate for clipping on the drive unit and the front.

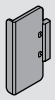
3	Front fastening 2x
	Fitting for fastening the front to the side mounting plates.

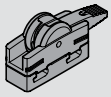
4	Front cover 1x
	Cover guarantees a consistent appearance.

5	Catch plate 1x
	Catch plate for assembly on the front. This guarantees secure closing when opened unintentionally.

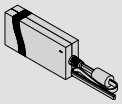
6	Blum distance bumper
	The Blum distance bumper ensures the required trigger path of 2mm.

7	Chipboard screw

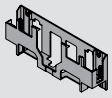
8	Assembly template
	Template for positioning the mounting plate on the side of the cabinet.

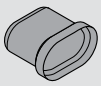
9	Connecting node
	This node establishes the electrical connection between the distribution cable and the transformer.

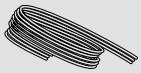
Accessories required depending on installation situation (see page 18)

10 + 11	Blum transformer 72 W
	When using more than one SERVO-DRIVE flex drive unit, the 72 W transformer is required.

10	Transformer unit housing for cabinet base fixing
	The transformer is easily and securely stored in the 'base' version of the transformer unit housing.

11	Transformer unit housing for panel fixing
	If the transformer is to be attached to the panel, then the 'panel' version of the transformer unit housing is used.

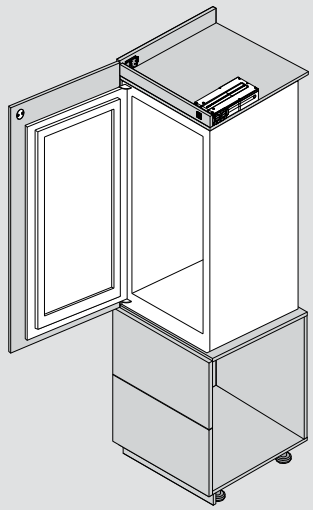
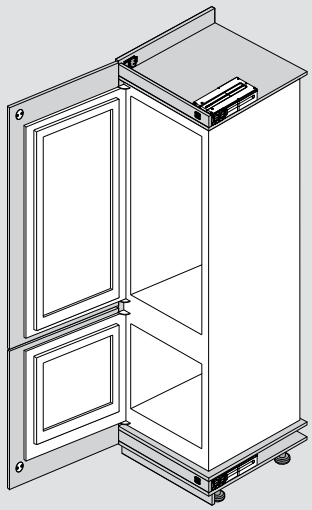
12	Cable end protector
	The cable end protector is inserted into the ends of the cable.

13	SERVO-DRIVE cable 800cm
	This cable is required for the synchronisation of two SERVO-DRIVE flex units and connection to the power supply.

SERVO-DRIVE flex

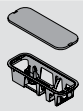
Ordering and planning information for refrigerator and freezer applications

Application

Refrigerator up to NH 1780 mm, freezer up to NH 1580 mm	Freezer ≥ NH 1780 mm	Fridge/freezer combination
		
1 x SERVO-DRIVE flex set	2 x SERVO-DRIVE flex set	2 x SERVO-DRIVE flex set

Order specification

	SERVO-DRIVE flex		
	SERVO-DRIVE flex drive set		Z10C500A
	Components included: 1 x drive unit, 2 x mounting plate, 2 x front fastening, 1 x front cover, 1 x catch plate, 3 x Blum distance bumper, 11 x chipboard screw, 1 x assembly template, 1 x connecting node		
	*Number of SERVO-DRIVE flex sets required depends on the application		

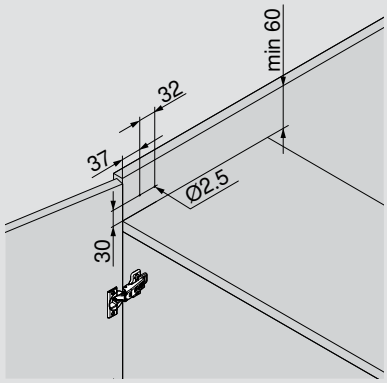
	Blum transformer*		
	Blum transformer 72W		Z10NE020D
	Flex		Z10M200K
	Transformer unit housing for cabinet base fixing	1x	Z10NG000
	Alternative: Transformer unit housing for panel fixing	1x	Z10NG120
	Connecting node (1x), Cable end protector (2x)		Z10V100E.01 Z10K800AE
	SERVO-DRIVE cable 800cm** for cutting to size		Z10K0009
	Cable holder		

Note: For applications with two SERVO-DRIVE flex units an additional SERVO-DRIVE cable, connecting node, cable end protector and cable holder are required.

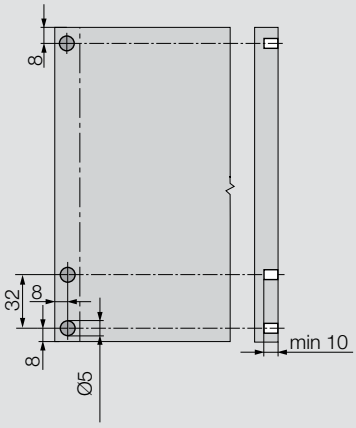
*SERVO-DRIVE flex is an application for SERVO-DRIVE. A transformer is required for power supply.
**The SERVO-DRIVE cable is used for applications that synchronise and connect two SERVO-DRIVE flex units. In addition the cable can be used with a connecting node to extend the power supply cable.

Planning information

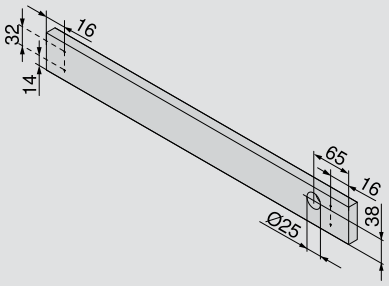
Preparation/drilling



Drilling for mounting plate

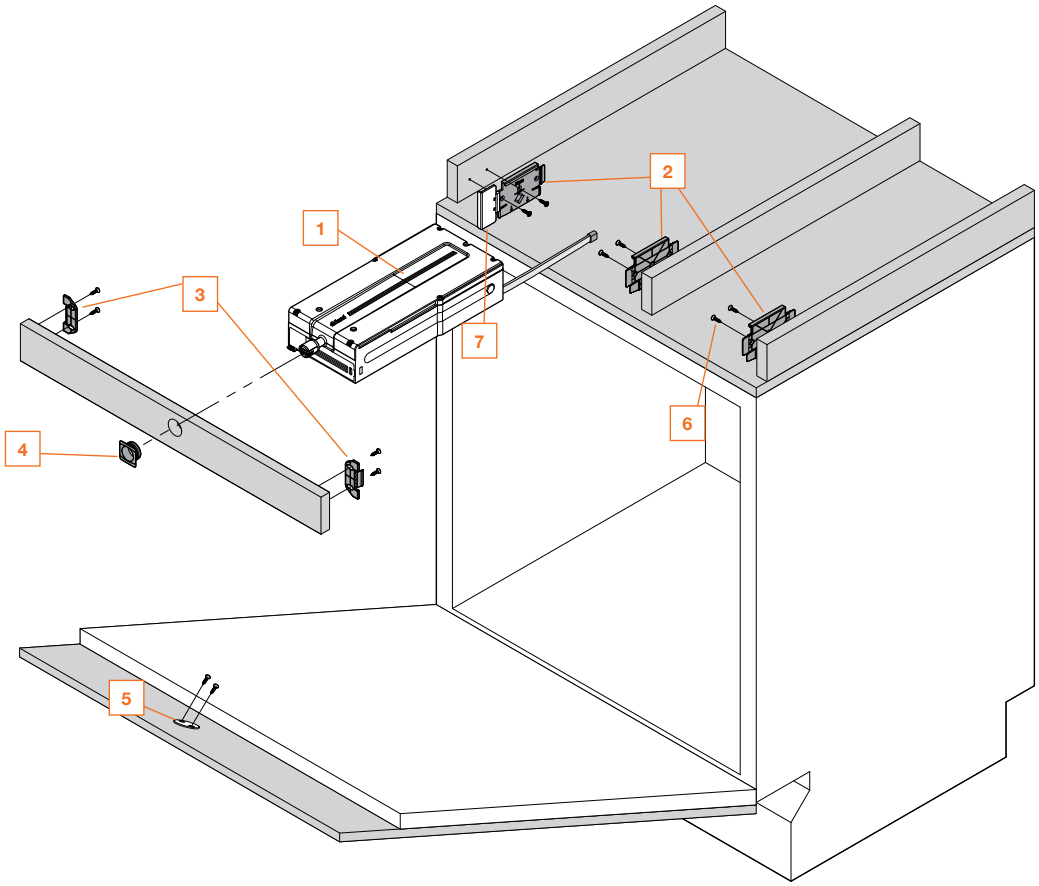


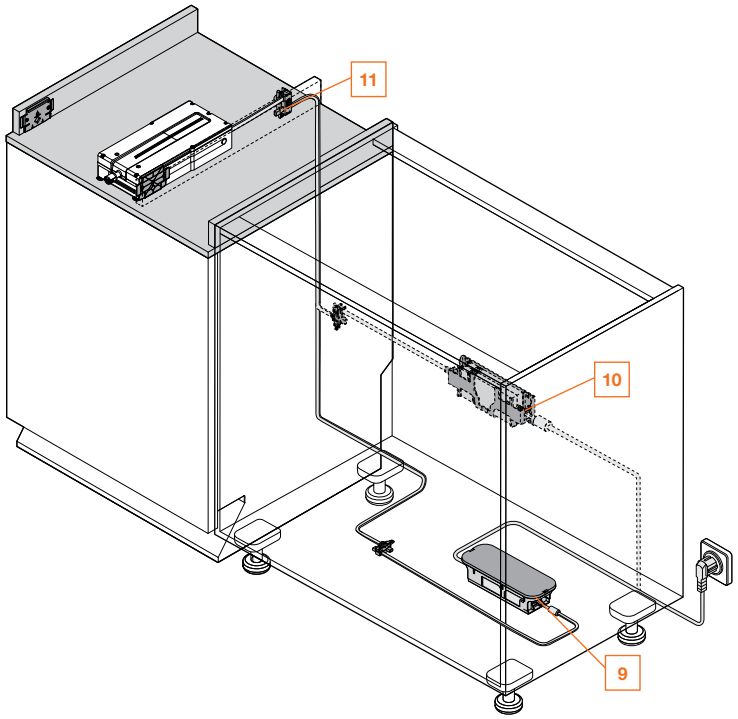
Drilling front for bumper



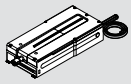
Drilling front – A 1 mm gap on all sides is required for the inset front.

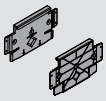
Component overview

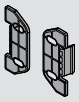




SERVO-DRIVE flex set

1	Drive unit	1x
	Drive unit opens handle-less refrigerators, freezers and dishwashers.	

2	Mounting plate	2x
	Mounting plate for clipping on the drive unit and the front.	

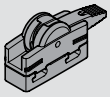
3	Front fastening	2x
	Fitting for fastening the front to the side mounting plates.	

4	Front cover	1x
	Cover guarantees a consistent appearance.	

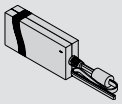
5	Catch plate	1x
	Catch plate for assembly on the front. This guarantees secure closing when opened unintentionally.	

6	Chipboard screw	11x

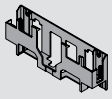
7	Assembly template	1x
	Template for positioning the mounting plate on the side of the cabinet.	

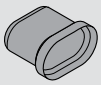
8	Connecting node	1x
	This node establishes the electrical connection between the distribution cable and the transformer.	

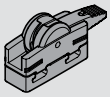
Optional accessories for dishwashers

9 +10	Blum transformer 72 W
	When using more than one SERVO-DRIVE flex drive unit, the 72 W transformer is required.

9	Transformer unit housing for cabinet base fixing
	The transformer is easily and securely stored in the 'base' version of the transformer unit housing.

10	Transformer unit housing for panel fixing
	If the transformer is to be attached to the panel, then the 'panel' version of the transformer unit housing is used.

11	Cable end protector
	The cable end protector is inserted into the ends of the cable.

8	Connecting node	1x
	This node establishes the electrical connection between the distribution cable and the transformer.	

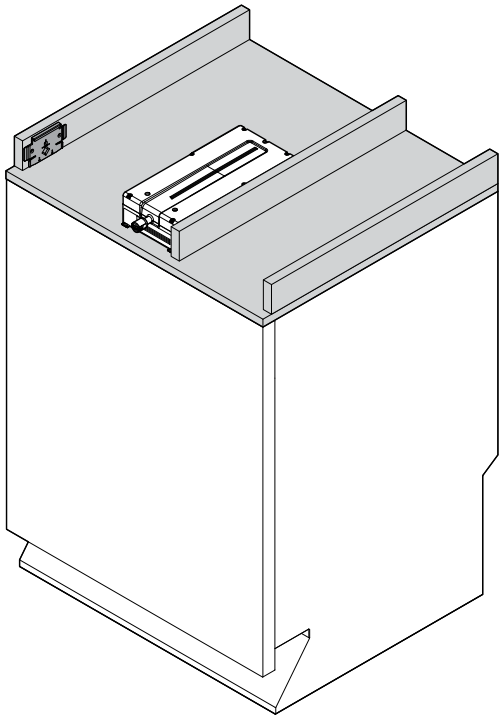
Additionally required for dishwashers

2	Mounting plate	1x
	Mounting plate for clipping on the drive unit and the front.	

SERVO-DRIVE flex

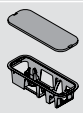
Ordering and planning information for dishwasher applications

Application



Order specification

	SERVO-DRIVE flex		
	SERVO-DRIVE flex set drive unit	1 x	Z10C500A
	Additional mounting plate for use with dishwashers	1 x	Z10C5005
	Components included: 1 x drive unit, 2 x mounting plate, 2 x front fastening, 1 x front cover, 1 x catch plate, 3 x Blum distance bumper, 11 x chipboard screw, 1 x assembly template, 1 x connecting node		

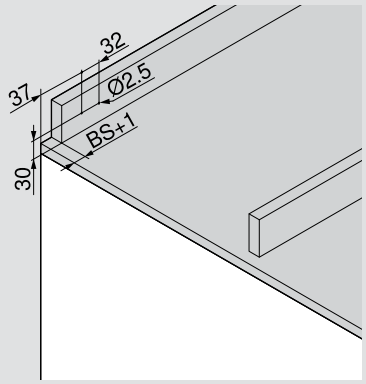
	Blum transformer*		
	Blum transformer 72W		Z10NE020D
	Flex		Z10M200K
	Transformer unit housing for cabinet base fixing	1x	Z10NG000
	Alternative: Transformer unit housing for panel fixing	1x	Z10NG120
	Connecting node (1x), Cable end protector (2x)		Z10V100E.01 Z10K800AE
	SERVO-DRIVE cable 800cm** for cutting to size		Z10K0009
	Cable holder		

*SERVO-DRIVE flex is an application for SERVO-DRIVE. A transformer is required for power supply

**The SERVO-DRIVE cable can be used with a connecting node to extend the power supply cable.

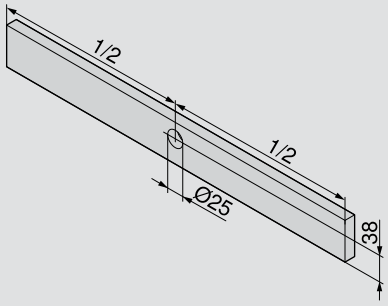
Planning information

Preparation/drilling

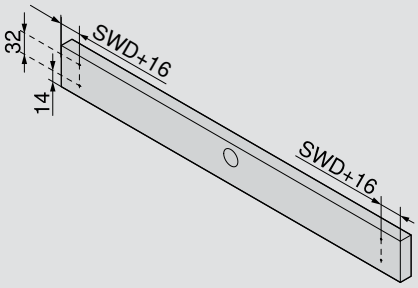


Drilling for mounting plate

BS 16-19 mm

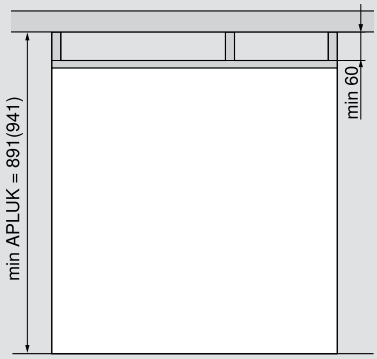


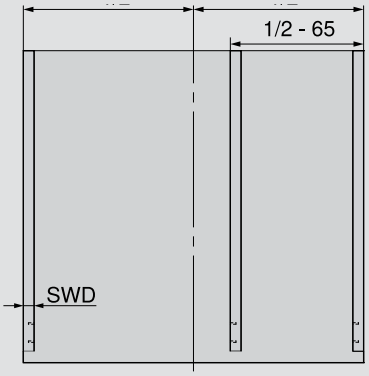
Drilling front



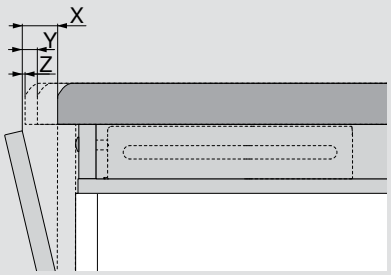
A 1 mm gap on all sides is required for the inset front.

Drive unit planning





Access given protrusion of bench tops



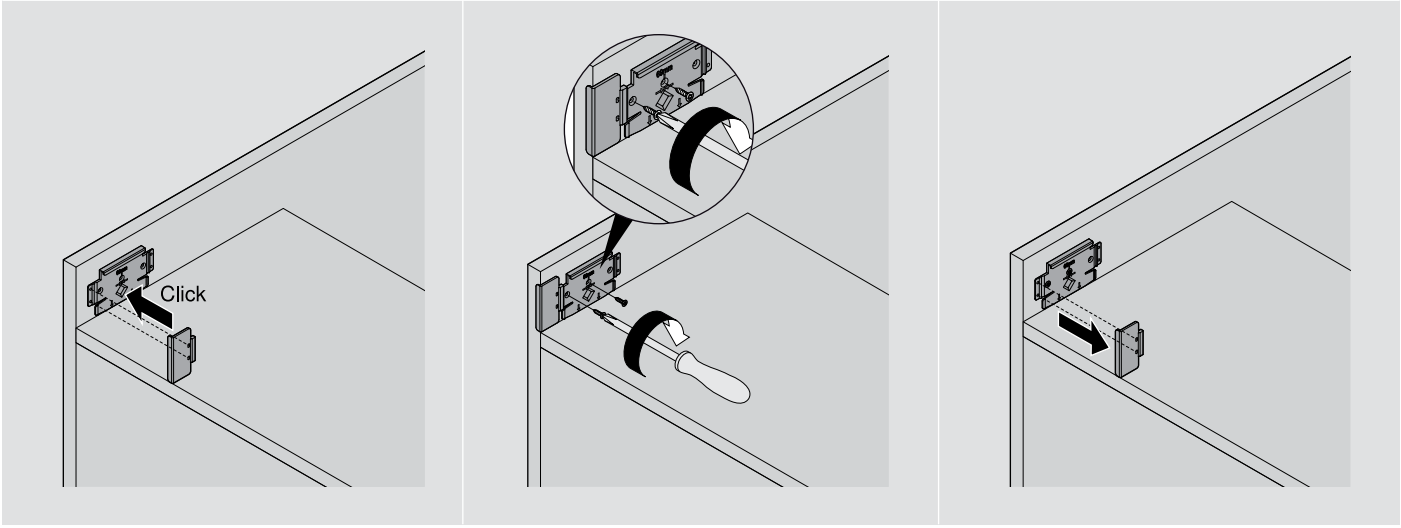
X	30 mm	APU	0 mm
Y	10 mm	APU	20 mm
Z	0 mm	APU	30 mm

NH	Recess height
BS	Front thickness
SWD	Side panel thickness

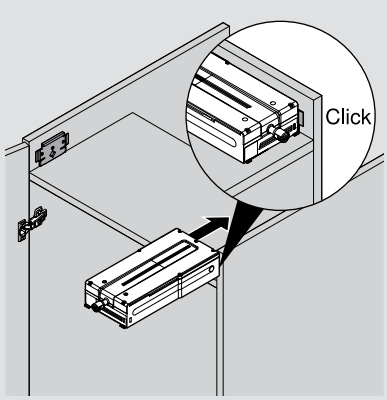
APLUK	Bottom edge of bench tops
APU	Protrusion of bench tops

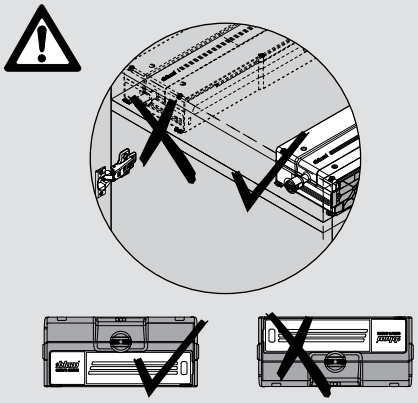
Assembly

Assembly using assembly template



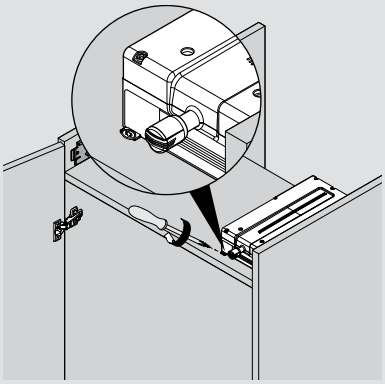
Drive unit assembly



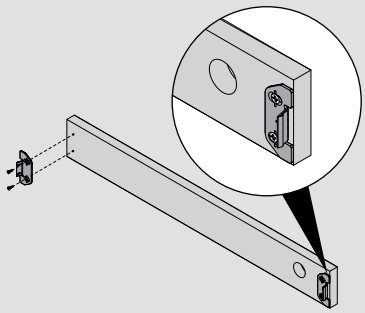


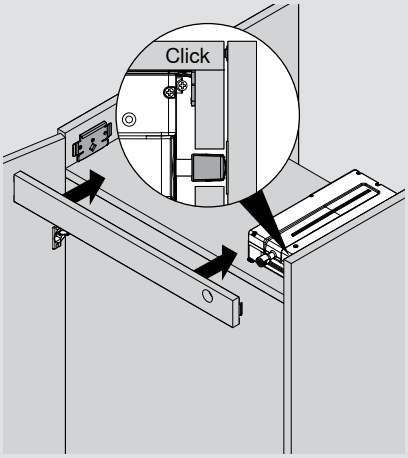
Important notes!

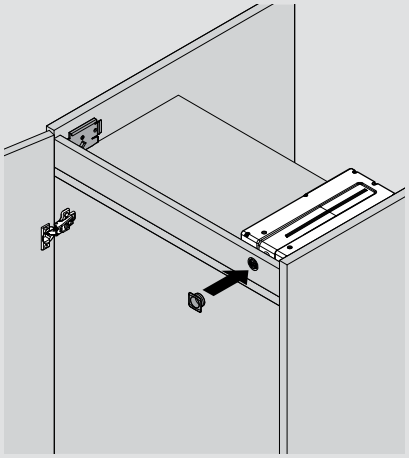
Transportation lock



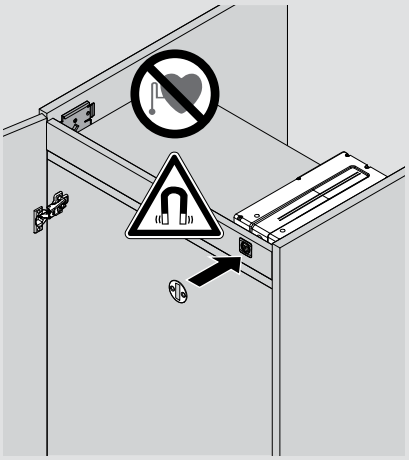
Front assembly

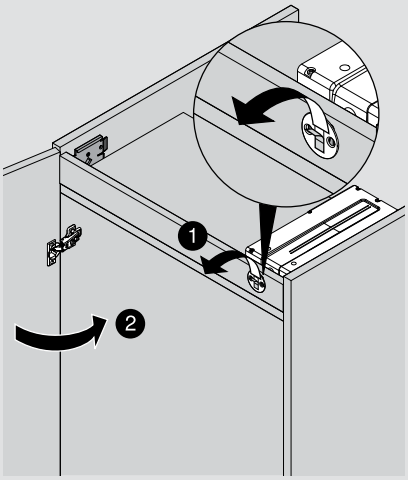


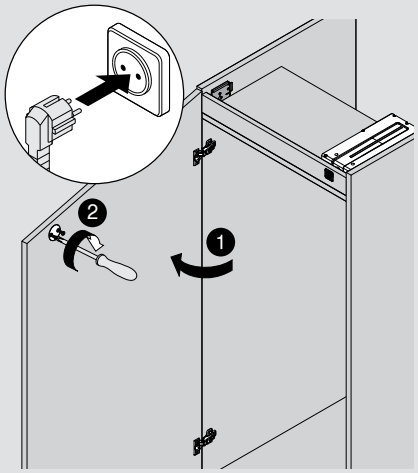




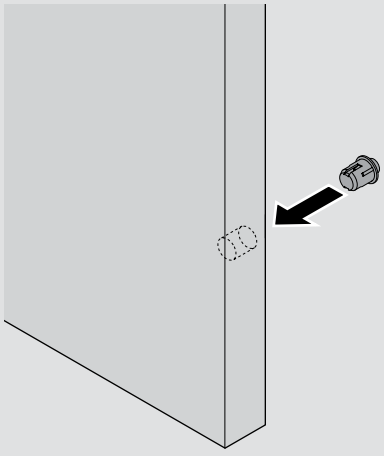
Catch plate assembly



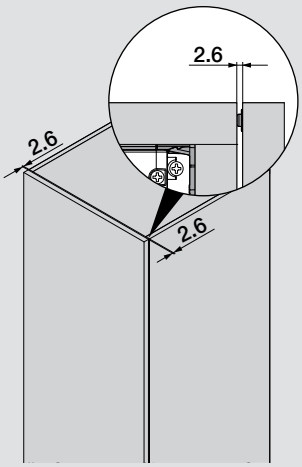




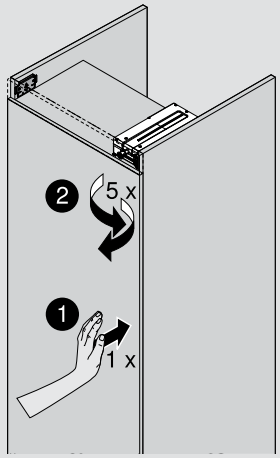
Assemble bumper



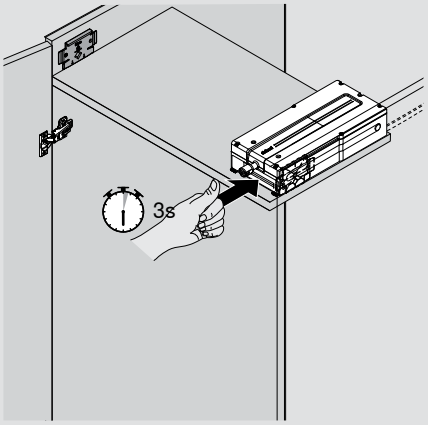
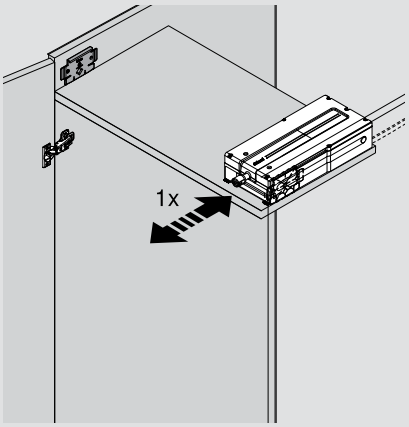
Adjust front gap



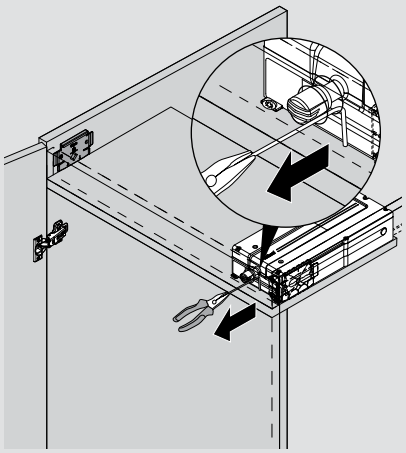
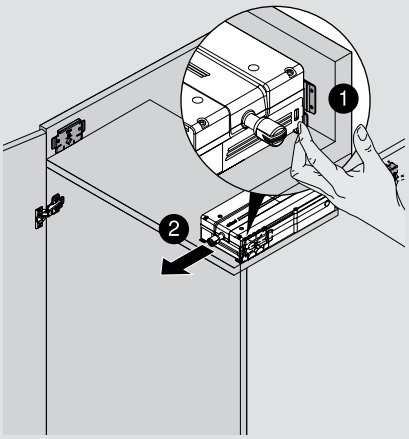
Reference run for start-up



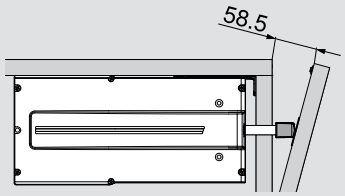
Resetting the drive unit

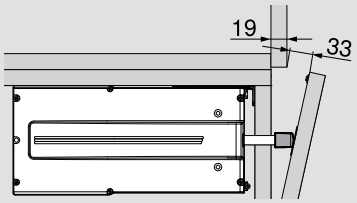
Reset SERVO-DRIVE unit	
	
	After the SERVO-DRIVE unit is reset the reference run will re-occur.

Removal

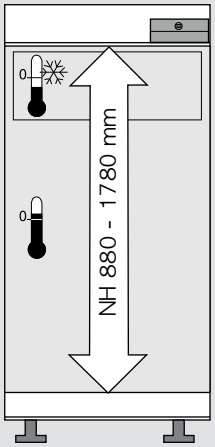
Removal	
	

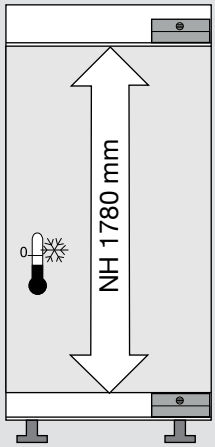
Access gap – measurements

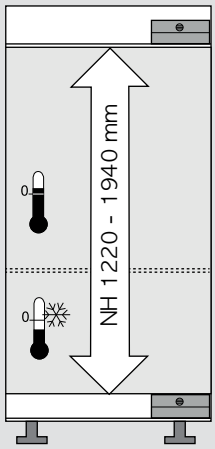




Installation situations (number of SERVO-DRIVE flex units required depends on the respective application)







	Refridgerator

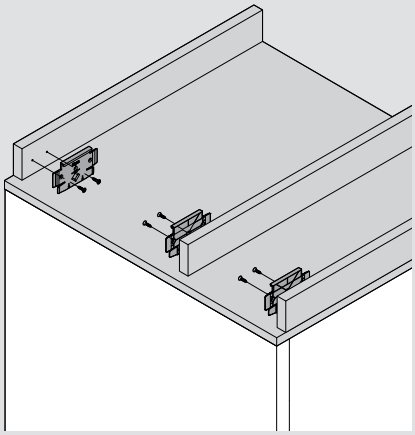
	Freezer

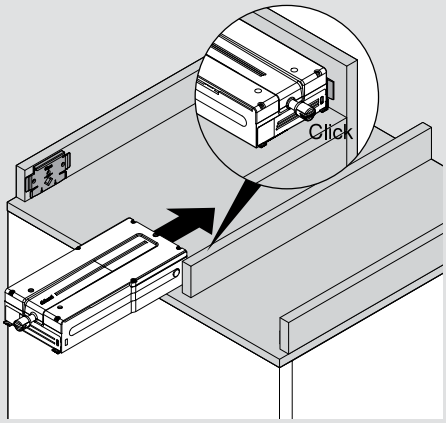
General notes

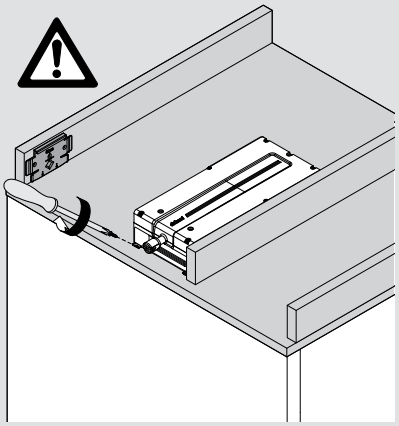
If the door of the device is left open for a relatively long time, for example when putting away shopping, a vacuum may be created inside the refrigerator or freezer after it has been closed. This may result in it not being possible to open the door of the device for a few seconds. This vacuum normally disappears after a short amount of time and the opening function becomes fully operational once again.

Assembly

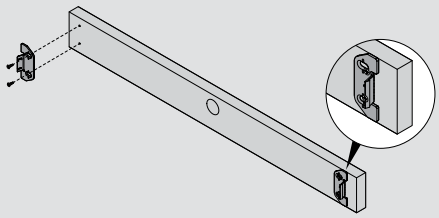
Drive unit assembly

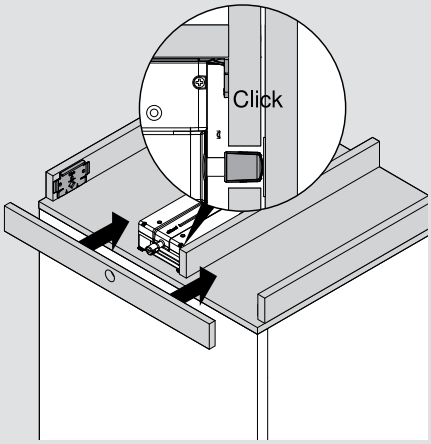


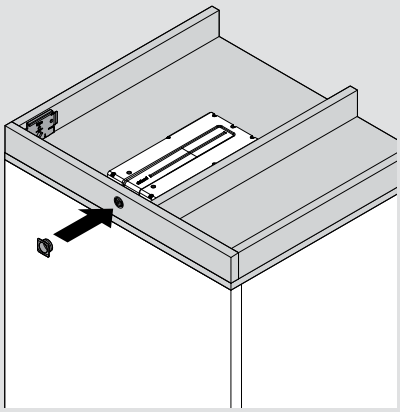




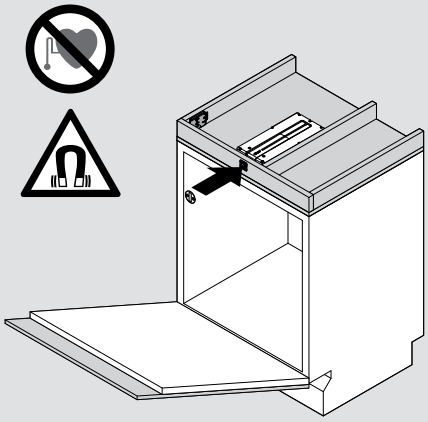
Front assembly

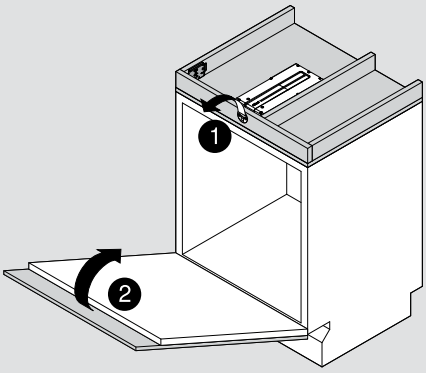


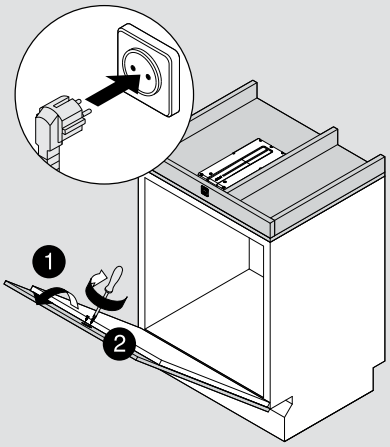




Catch plate assembly

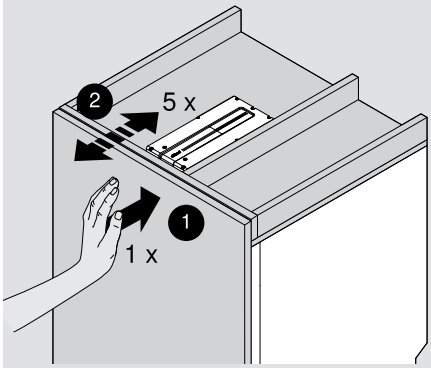




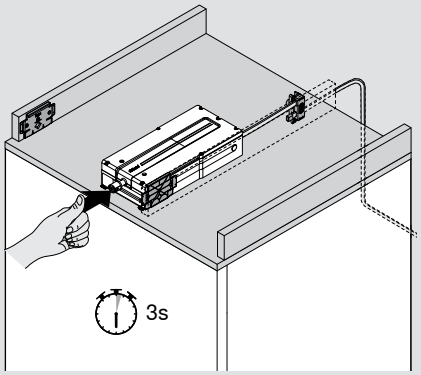


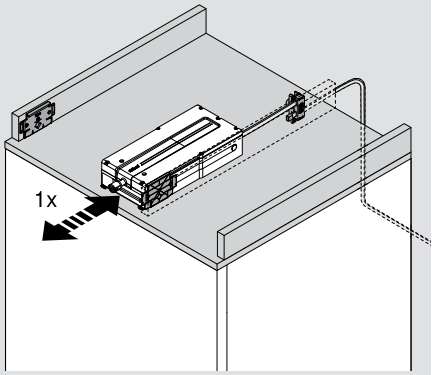
Installation and removal

Reference run



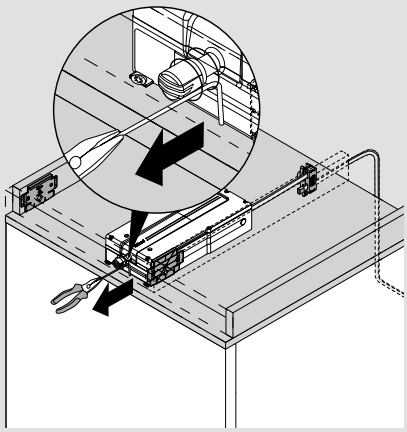
Reset SERVO-DRIVE unit

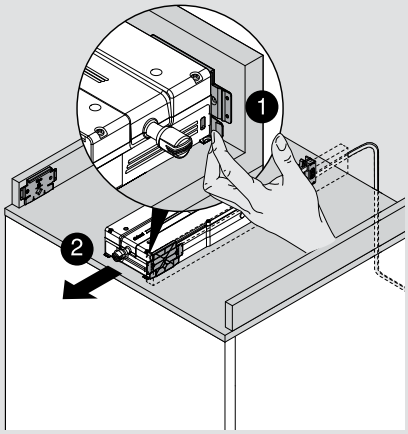




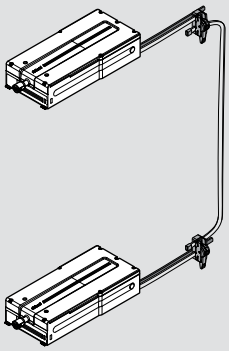
After the SERVO-DRIVE unit is reset the reference run will re-occur.

Removal





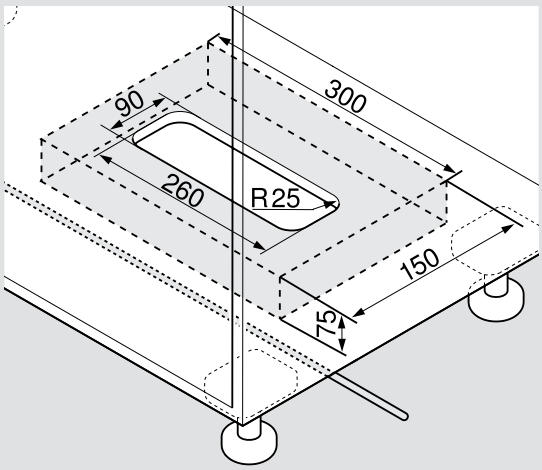
Outputs from SERVO-DRIVE flex unit.



Black = power supply
Light grey R7035 = communication (synchronisation cable)

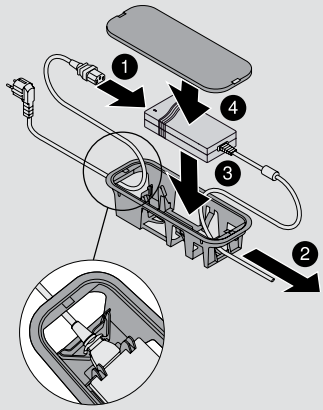
Base mounting

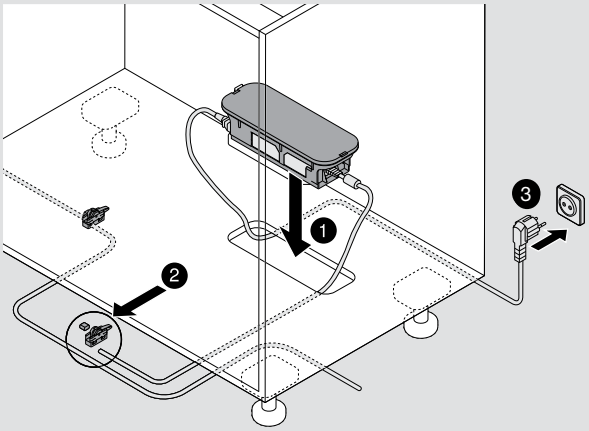
Space requirement + safety distance for transformer unit housing



Note:
Maintain a 30 mm safety distance from the bottom edge (base mounting) and/or front edge (panel mounting) and side edges of the transformer unit housing to the neighbouring elements to allow for air circulation; otherwise, there is a risk that the Blum transformer could overheat.

Transformer unit housing for base mounting

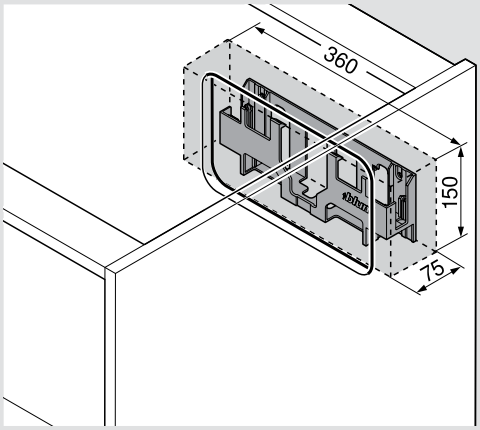




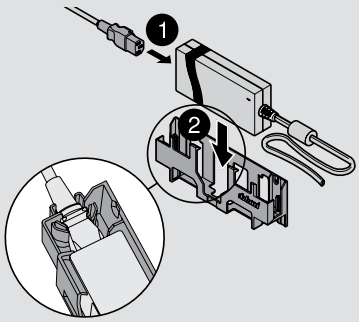
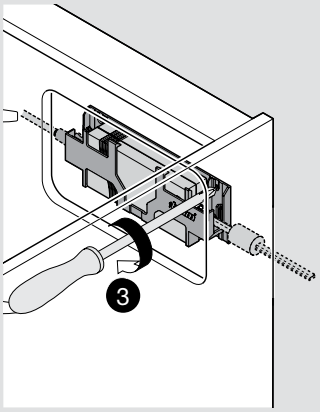
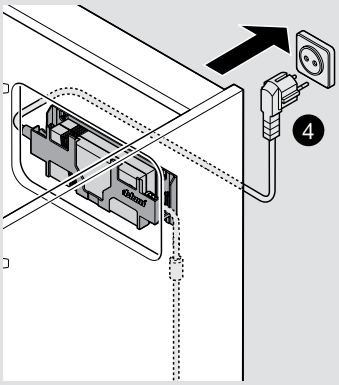
Pull-out stop

Panel mounting

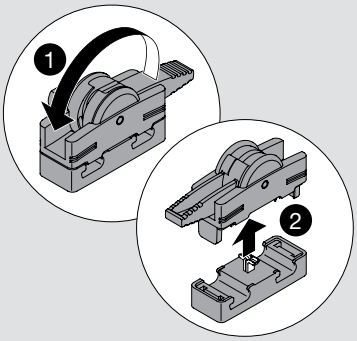
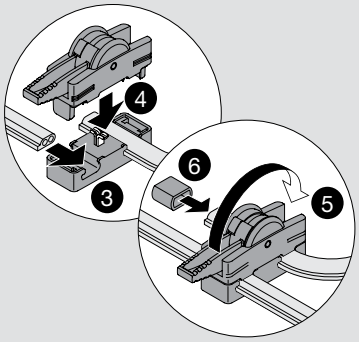
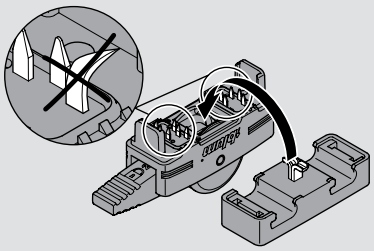
Space requirement + safety distance for transformer unit housing



Note:
Maintain a 30 mm safety distance from the bottom edge (base mounting) and/or front edge (panel mounting) and side edges of the transformer unit housing to the neighbouring elements to allow for air circulation; otherwise, there is a risk that the Blum transformer could overheat.

Transformer unit housing for panel mounting		
		
Pull-out stop		

Connecting nodes

Connecting node assembly		
		
		Do not damage piercing pins!

Blum

Founded over 60 years ago by Julius Blum, today Blum is an internationally active family-owned company. Blum is trusted and renowned worldwide for designing a comprehensive range of high quality industry leading products that significantly enhance user convenience and ergonomics in the kitchen and throughout the home. That's why we make every effort to perfect the motion of our lift, hinge, box and runner systems.

Design is more than an attractive appearance

Form, function and the focus on perfecting motion are and have always been firmly interlinked at Blum. This means that Blum products turn the use of high-quality furniture into a true experience and offer the ideal fitting solution for every home. Blum incorporates current design trends, personal preferences and functional furniture use. Blum fittings are internationally recognised for their sophisticated design and functional excellence.

Quality for the lifetime of the furniture

For over 60 years, quality has been the highest principle for the development and manufacture of Blum products. Our fittings exemplify quality with their well-thought-out function and durability, engineered to provide problem free use for the lifetime of the furniture. We achieve this by using the strictest internal guidelines and rigorous testing that form the basis of our ISO9001 Quality Management System.

ISO 9001
Certified Quality System

Innovation for high living comfort

We want our fitting solutions to be innovative and make everyday kitchen use easier. That's why our developments are based on findings from requirements research and input from our customers. Blum is one of the largest patent applicants in Austria and has more than 1,000 registered trademarks. CLIP, tool free assembly, TANDEM technology, MOVENTO technology, soft-close BLUMOTION and SERVO-DRIVE electrical motion support system are all innovations by Blum and milestones in the furniture manufacturing industry.

Our contribution to the environment

Blum strives to minimise its environmental impact with environmental protection being an integral part of everything we do. We use environmentally friendly processes, use raw materials intelligently and save energy wherever we can. Our commitment to environmental protection is internationally recognised and rewarded. We endeavour to maintain and are always looking to improve our environmental management systems.

ISO 14001
Certified Environmental System

ISO 50001
Certified Energy System

ISO 50001
Certified Energy System

ISO 9001
Certified Quality System

ISO 14001
Certified Environmental System

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