

LIEBHERR

Detailed design guide for EC(B)N models
Storage centres for integrated use

Version 11 / 2016_EN

Liebherr's engineering excellence in Germany provides the largest selection of refrigerators, freezers and wine cabinets worldwide.

Liebherr is one of the world's leading manufacturers of premium refrigerators and freezers. For more than 60 years, Liebherr has specialised in developing and manufacturing first-class refrigerators and freezers as well as wine cabinets. We focus on performance and efficiency as well as keeping food fresher for longer. Produced in Austria and Germany, Liebherr has a full line of premium models tailored to different markets to fit any design vision you have for your kitchen.

Our free-standing stainless steel models are elegant centrepieces that make a definite statement in any kitchen. Our built-in models are perfect for insertion into rows of kitchen units. And our models for integrated use become one with your kitchen design, hidden seamlessly behind your cabinetry.

High-quality materials, perfectly detailed finishes, precise electronic control systems, advanced cooling components, variable-speed compressors and the latest production processes ensure energy efficiency and cooling capacity for years to come. Our superior products offer premium quality, cutting-edge design and innovative features that fit with your busy lifestyle.

Liebherr's commitment to the environment

The components of Liebherr products can be recycled if the necessary resources are available. A concern for the environment and a desire to protect natural resources has led to increased levels of recycling year after year. When Liebherr manufactures products, it is essential that the recyclable recovery rate of the materials we use constantly increases.

Recycling is a common goal among all manufacturers, municipalities and recycling companies to protect our environment. Protecting the environment and producing products which have a low impact on the environment is one of Liebherr's core values. When the service life has ended, please dispose of your old appliances in an environmentally safe and friendly manner.

Contents

Design Guide

Safety instructions	4
Electrical requirements and safety	4
IceMaker	5
Requirements for installation	5
Anti-tipping device	5
Range of appliance use	5
Climate rating	5
General description	6
ECBN 5066	6
EC(B)N 6156	6
EC(B)N 6256	6
Water connection for IceMaker	7
Appliance dimensions of ECBN 5066	8
Appliance dimensions of EC(B)N 6156	9
Appliance dimensions of EC(B)N 6256	10
Methods of installation	11
Recess dimensions for ECBN 5066	12
Recess dimensions for EC(B)N 6156, EC(B)N 6256	13
Height adjustment in the recess ECBN 5066	14
Height adjustment in the recess EC(B)N 6156	14
Height adjustment in the recess EC(B)N 6256	15
Appliance venting	16
Panel dimensions for ECBN 5066	17
Panel dimensions for EC(B)N 6156	18
Panel dimensions for EC(B)N 6256	19
Door panel collision grid - internal door panel ECBN 5066, EC(B)N 6156	20
Door panel collision grid - external door panel ECBN 5066, EC(B)N 6156	21
Door panel collision grid - 16 mm internal door panel EC(B)N 6256	22
Door panel collision grid - 19 mm internal door panel EC(B)N 6256	23
Door panel collision grid - 16 mm external door panel EC(B)N 6256	24
Door panel collision grid - 19 mm external door panel EC(B)N 6256	25
Panel dimensions for accessory stainless steel panels and gap dimensions	26
Accessories	27

General notes

Safety instructions

PLEASE READ AND FOLLOW THESE INSTRUCTIONS

This detailed design guide contains warnings and important notes.

These instructions contain information for planning and for efficient, safe installation.

Always read and follow all warnings and important notes.



WARNING!

Warning indicates a potentially hazardous situation which could result in death or serious injury if the warning is not observed.

IMPORTANT

An important note highlights information that is especially relevant to a problem-free installation and operation.

Electrical requirements and safety

Only operate the appliance with alternating current (AC).

The maximum voltage and frequency depend on the appliance design for the country concerned.

Sockets must be properly earthed and protected by a fuse.

Sockets must not be situated behind the appliance and must be easily accessible to disconnect the appliance from the mains if necessary.

A separate circuit for the appliance is recommended to prevent food defrosting or spoiling due to a power failure caused by other appliances.



WARNING!

Risk of fatal electric shock.

Do not connect the appliance to unearthed sockets.

A failure to obey this instruction may result in serious injury or death.



WARNING!

Danger of fire

- **Do not connect the appliance using an extension cable or extension socket. There is a danger of overheating and fire as a result of possible poor socket contacts.**
- **Do not connect the appliance using an inverter. There is a danger of overheating – resulting in fire – of the electronic control system as a result of incorrect sinusoidal voltage from various inverters.**

A failure to obey these instructions may result in fire, serious injury or death.

General notes

IceMaker

The IceMaker is fitted in the freezer compartment of the combined refrigerator-freezer. It must be connected to the mains water supply to work.

The appliance must be levelled to ensure that all the chambers in the ice-cube tray of the IceMaker are completely filled with water.

See the section entitled **Water connection for IceMaker** for further details.

Requirements for installation

Check the following:

- Is the floor designed to withstand the net weight of the appliance plus the weight of complete contents?

The net weight of the appliances is as follows:

ECBN 5066 > 147 kg
EC(B)N 6156 > 163 kg
EC(B)N 6256 > 159 kg

- Is the floor level?

IMPORTANT

Do not start the appliance for 1 hour after transport so that the lubricant in the compressor can collect in the compressor housing and cannot get into the refrigerant circuit.

Anti-tipping device

The anti-tipping bracket supplied with the appliance must always be installed to prevent the appliance tipping over when the fully loaded door is opened.

Range of appliance use

The appliance is suitable solely for storing food in a domestic environment or similar.

This includes, for example, use:

- in private homes,
- in staff kitchenettes, bed and breakfast establishments,
- by guests in cottages, hotels, motels and other forms of accommodation,
- in catering and similar services in the wholesale trade.

The appliance is not suitable for storing and cooling medicines, blood plasma or laboratory preparations.

Incorrect use of the appliance can cause the stored goods to be damaged or spoiled.

Furthermore, the appliance is not suitable for use in explosion-hazard areas.

Climate rating

The climate rating indicates the room temperature at which the appliance may be operated in order to achieve full cooling capacity.

The climate rating for the appliance is shown on the type plate.

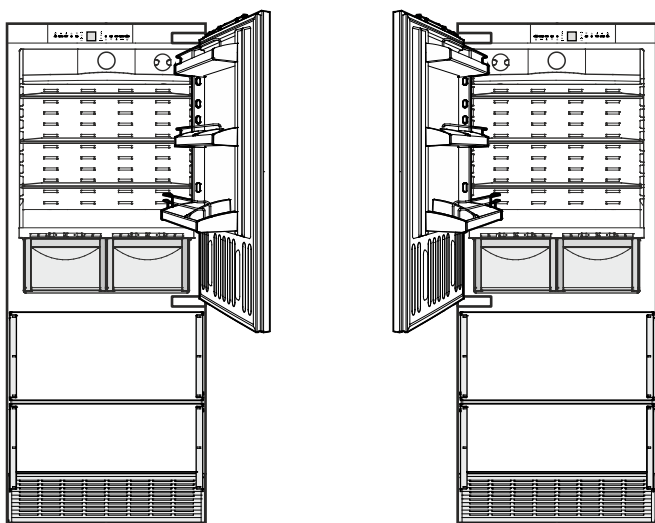
Climate rating	Ambient temperature
SN	+10°C to +32°C
N	+16°C to +32°C
ST	+16°C to +38°C
T	+16°C to +43°C
SN-ST	+10°C to +38°C
SN-T	+10°C to +43°C

IMPORTANT

Do not operate the appliance outside the specified ambient temperature range.

The appliance's refrigerant circuit has been tested for leaks.

General description

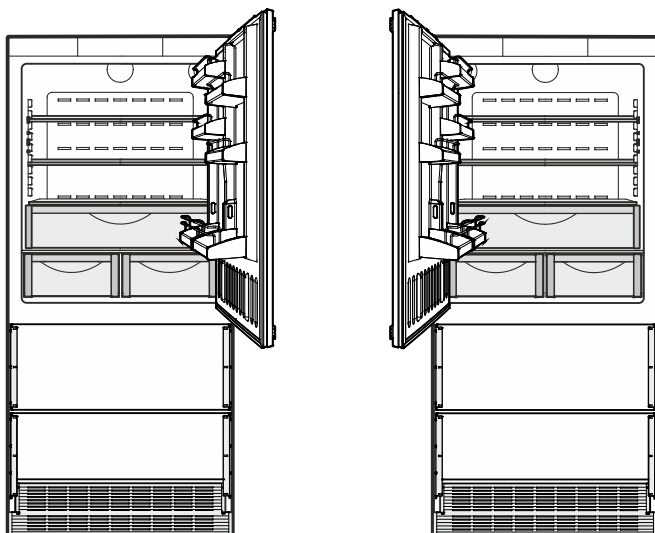


ECBN 5066

The appliance is available with the door hinged on the right or left.

The door hinges can be reversed on both versions.

The door hinge conversion kit is required for this purpose (see section entitled **Accessories**).

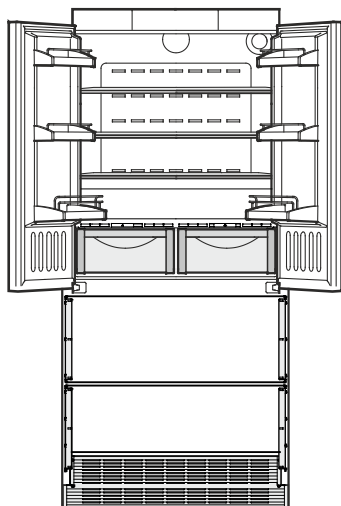


EC(B)N 6156

The appliance is available with the door hinged on the right or left.

The door hinges can be reversed on both versions.

The door hinge conversion kit is required for this purpose (see section entitled **Accessories**).



EC(B)N 6256

Storage centres for integrated use

Water connection for IceMaker

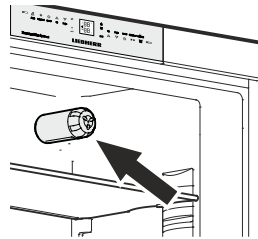
A water supply line with a water shut-off valve and an R 3/4 connector is required for the IceMaker.

IMPORTANT

The water shut-off valve must not be situated behind the appliance and must be easily accessible to disconnect the appliance from the water supply if necessary.

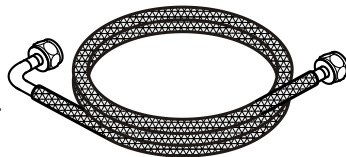
The water pressure must be between 1.5 and 6 bar.

If the water filter is inserted in the appliance, the water pressure must be between 3 and 6 bar.



If the water pressure with the inserted water filter is too low, this may cause the IceMaker to malfunction.

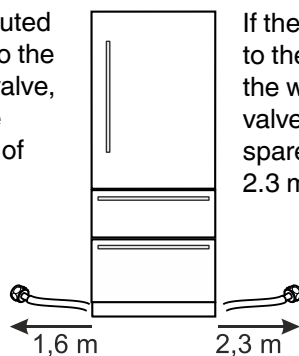
Only use the supply hose provided with the appliance to connect the IceMaker to the water supply.



The supply hose is to be connected to the bottom right of the appliance plinth at the front and routed to the rear.

If the hose is routed to the rear left to the water shut-off valve, there is a spare length of 1.6 m of hose.

If the hose is routed to the rear right to the water shut-off valve, there is a spare length of 2.3 m of hose.

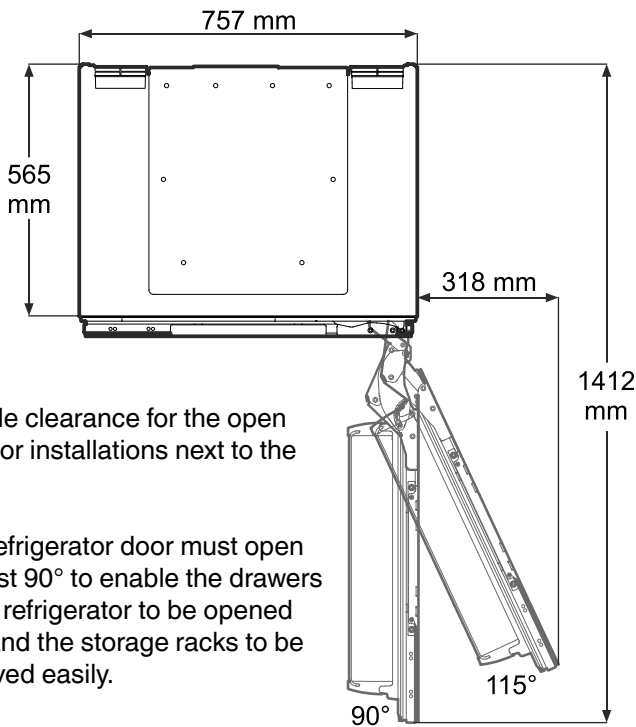
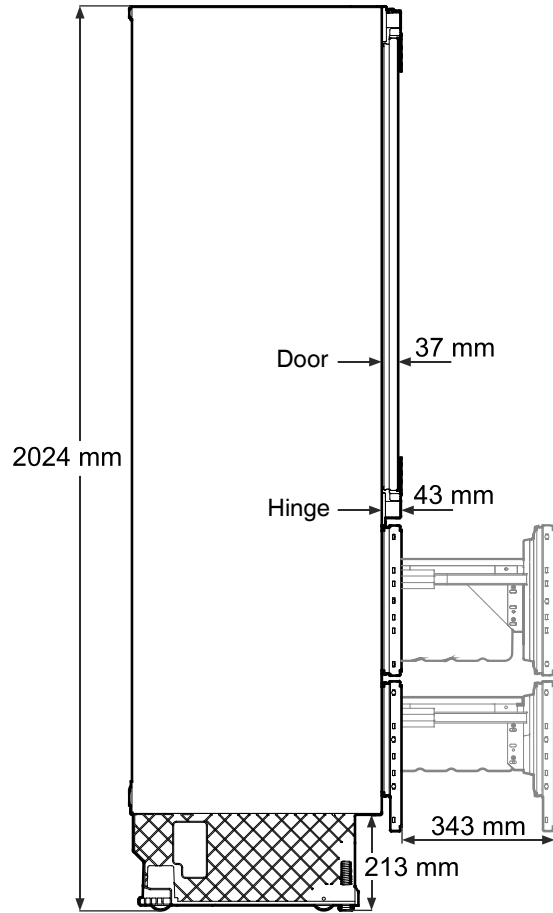
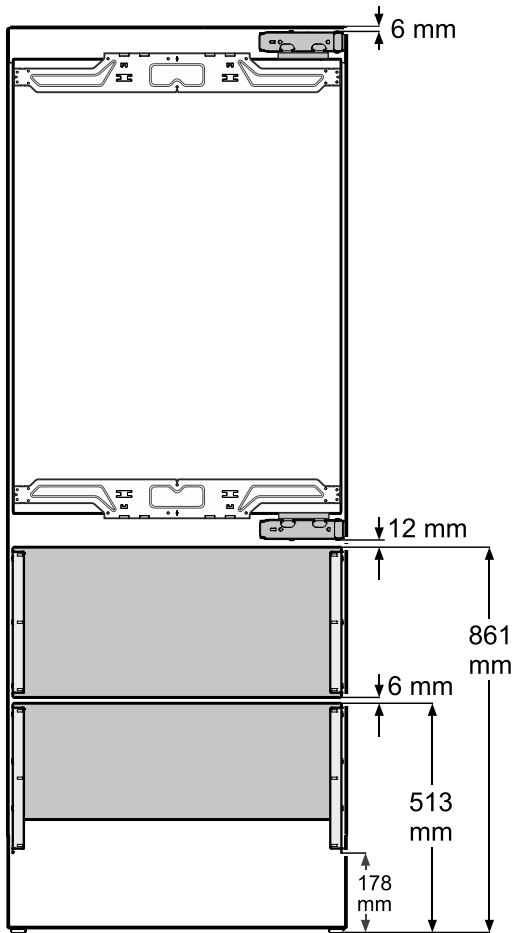


Safety instructions

- The connection to the mains water supply may only be made by trained personnel.
- The water quality must comply with the drinking water directives of the country in which the appliance is used.
- The IceMaker is designed exclusively to make ice cubes in quantities required by a household and may only be operated with drinking water.
- The manufacturer cannot accept liability for damage caused by a faulty connection to the mains water supply.

Storage centres for integrated use

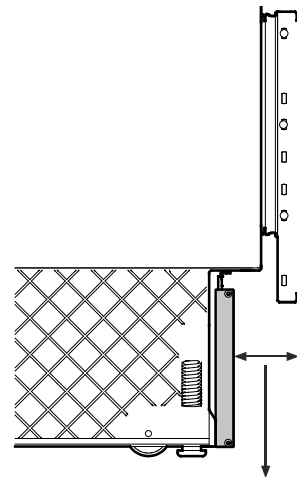
Appliance dimensions of ECBN 5066 (height dimensions are with adjustable feet or castors fully screwed in)



Include clearance for the open door for installations next to the wall.

The refrigerator door must open at least 90° to enable the drawers in the refrigerator to be opened fully and the storage racks to be removed easily.

Maximum door opening angle = 115°



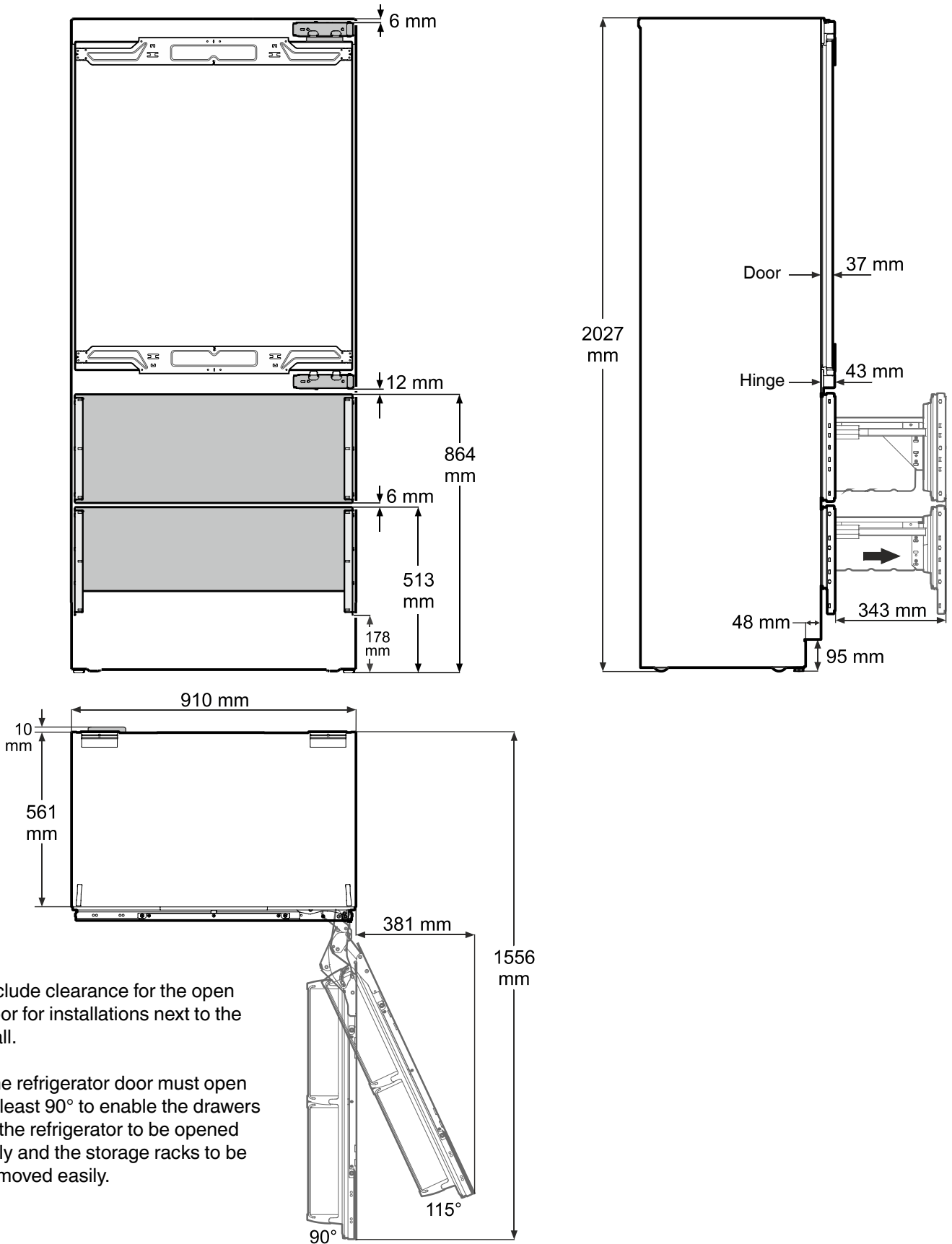
The supplied ventilation grille can be adjusted in depth after installation.

Adjustment range 41 mm - 76 mm

The procedure is described in the installation instructions

Storage centres for integrated use

Appliance dimensions of EC(B)N 6156 (height dimensions are with adjustable feet or castors fully screwed in)



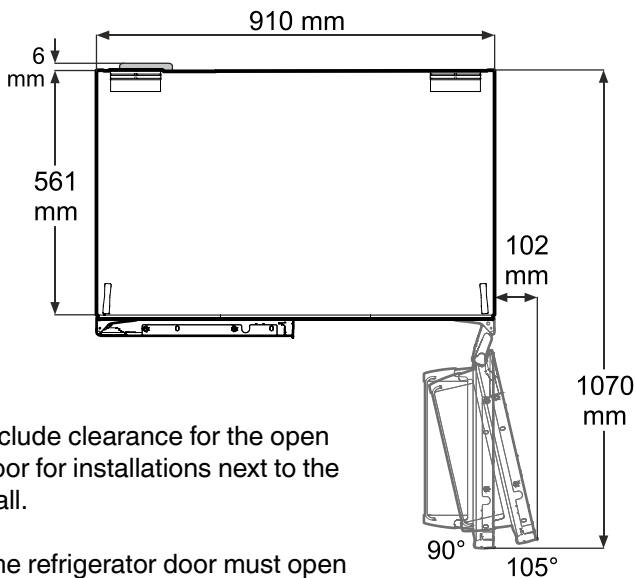
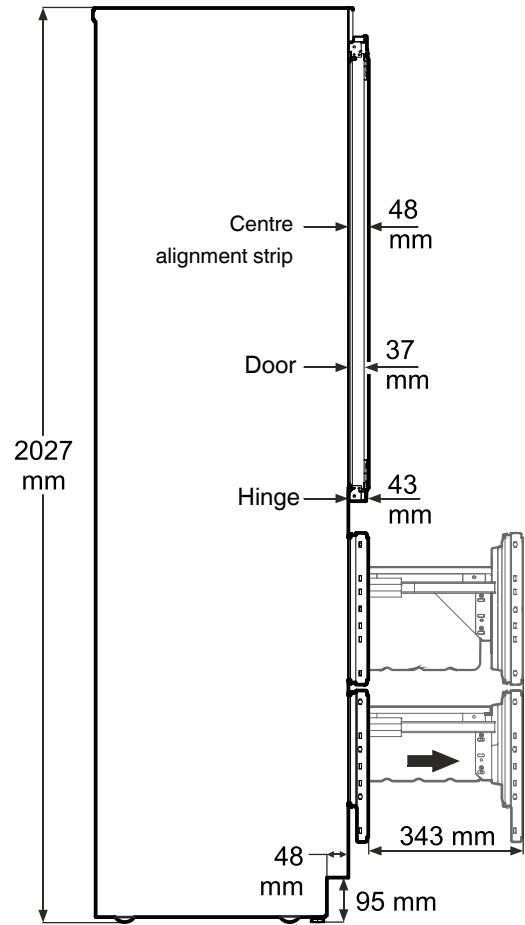
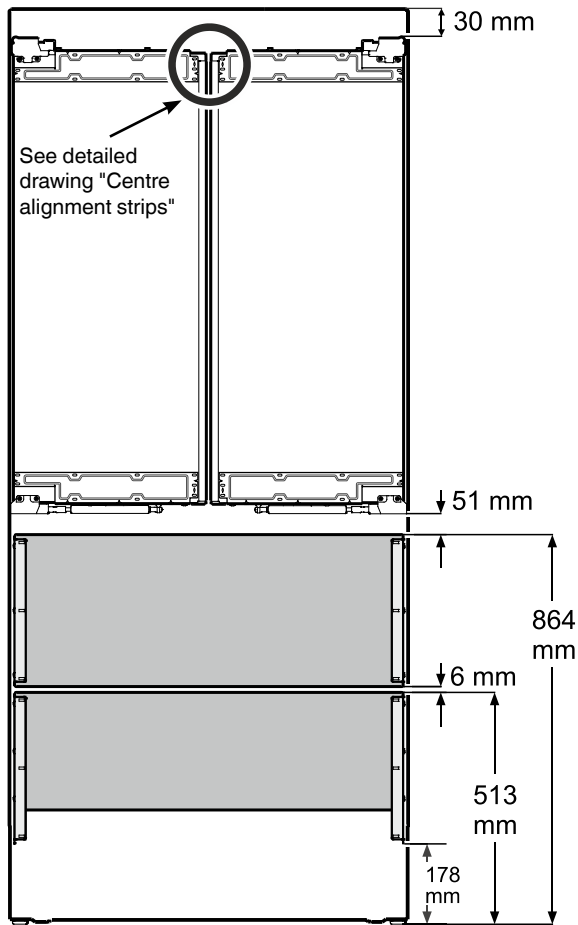
Include clearance for the open door for installations next to the wall.

The refrigerator door must open at least 90° to enable the drawers in the refrigerator to be opened fully and the storage racks to be removed easily.

Maximum door opening angle = 115°

Storage centres for integrated use

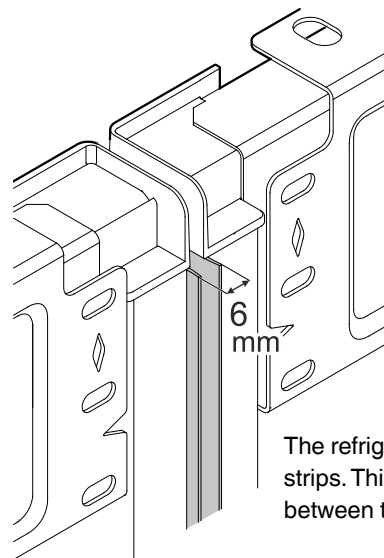
Appliance dimensions of EC(B)N 6256 (height dimensions are with adjustable feet or castors fully screwed in)



Include clearance for the open door for installations next to the wall.

The refrigerator door must open at least 90° to enable the drawers in the refrigerator to be opened fully and the storage racks to be removed easily.

Detailed drawing Centre alignment strips



Methods of installation

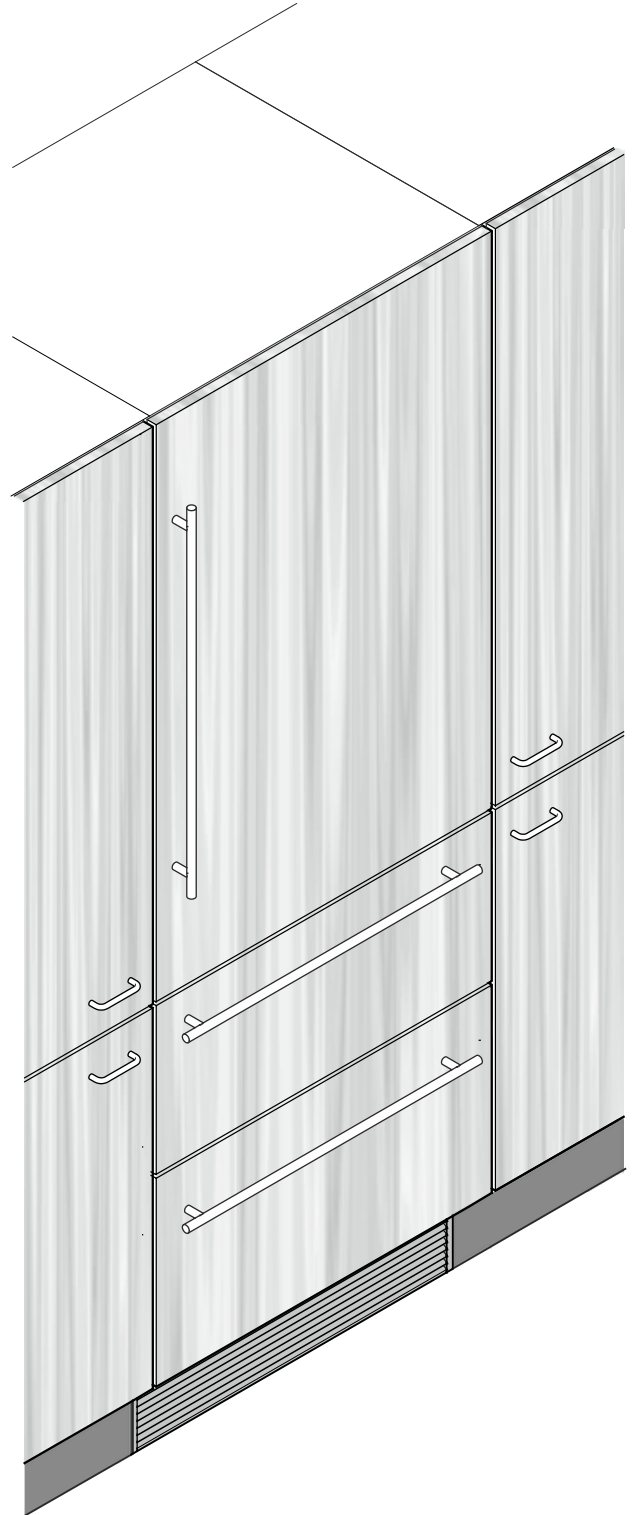
Internal door panel

The door panel fits inside the body of the kitchen unit; the front of the unit is visible.



External door panel

The door panel rests on the panels of the kitchen unit; the front of the unit is covered by the door panel.



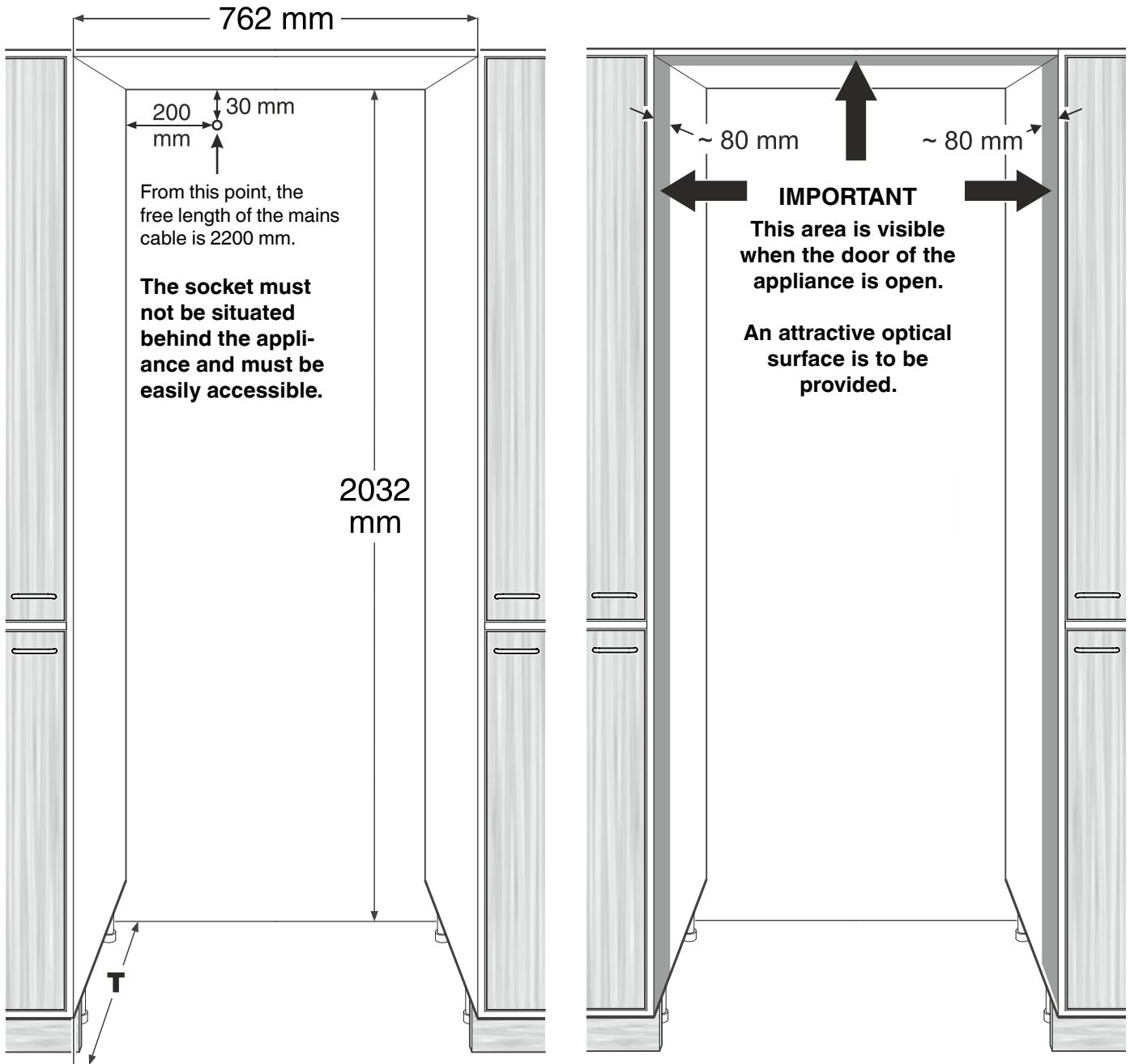
Storage centres for integrated use

Recess dimensions for ECBN 5066

The appliance stands on the floor between two kitchen units.

If the appliance is integrated into a kitchen unit, the panel width must be adjusted accordingly.

The dimensions quoted in the section entitled "Panel dimensions" are without a separate kitchen unit.



Recess depth **T** for installations with external door panel = 610 mm

Recess depth **T** for installations with internal door panel = 610 mm + **panel thickness**

Note

20 mm thick stainless steel panels for internal installation are available as accessories. If these panels are used, a recess depth of 630 mm is required.

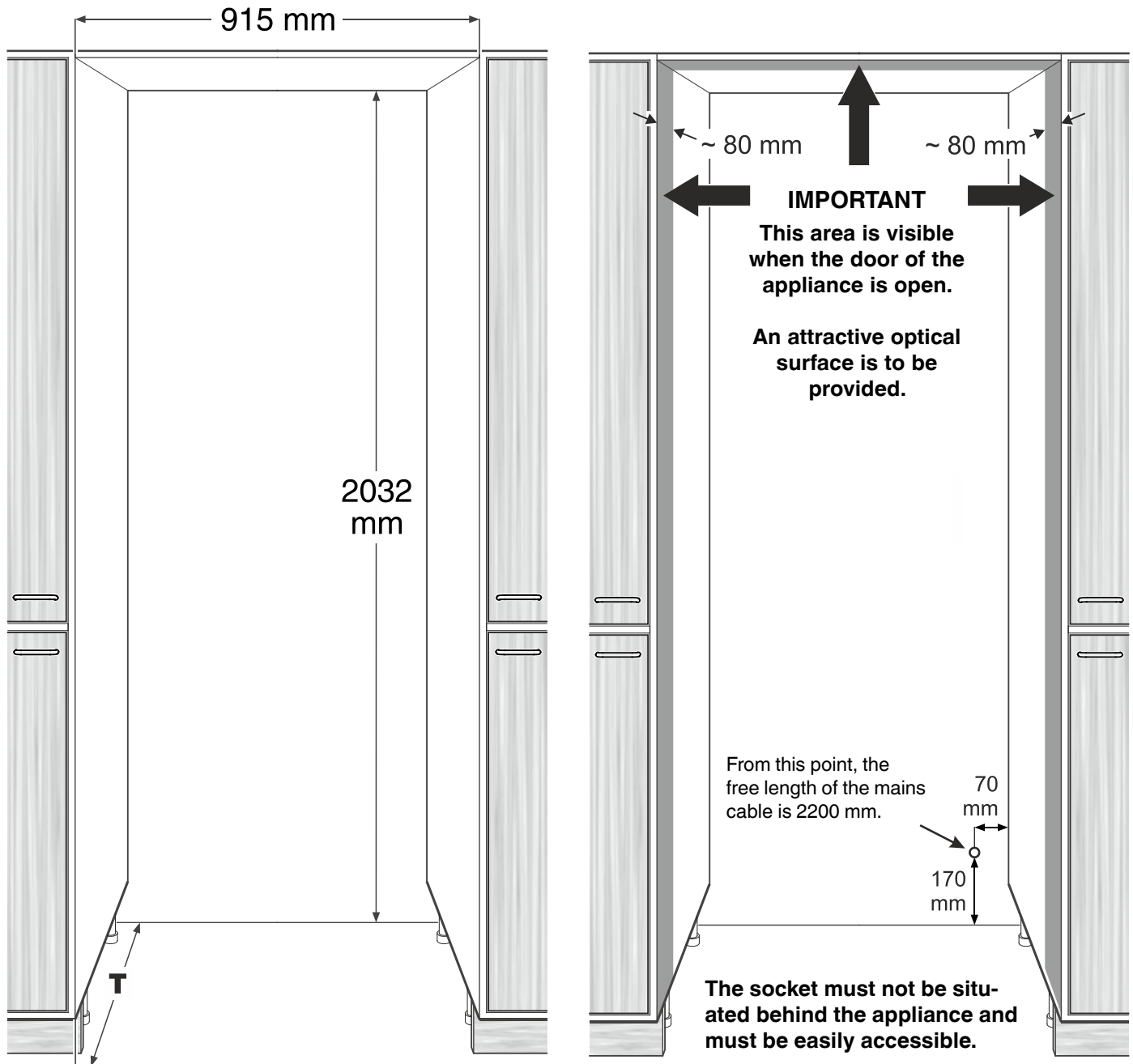
Storage centres for integrated use

Recess dimensions for EC(B)N 6156, EC(B)N 6256

The appliance stands on the floor between two kitchen units.

If the appliance is integrated into a kitchen unit, the panel width must be adjusted accordingly.

The dimensions quoted in the section entitled "Panel dimensions" are without a separate kitchen unit.



Recess depth **T** for installations with external door panel = 610 mm

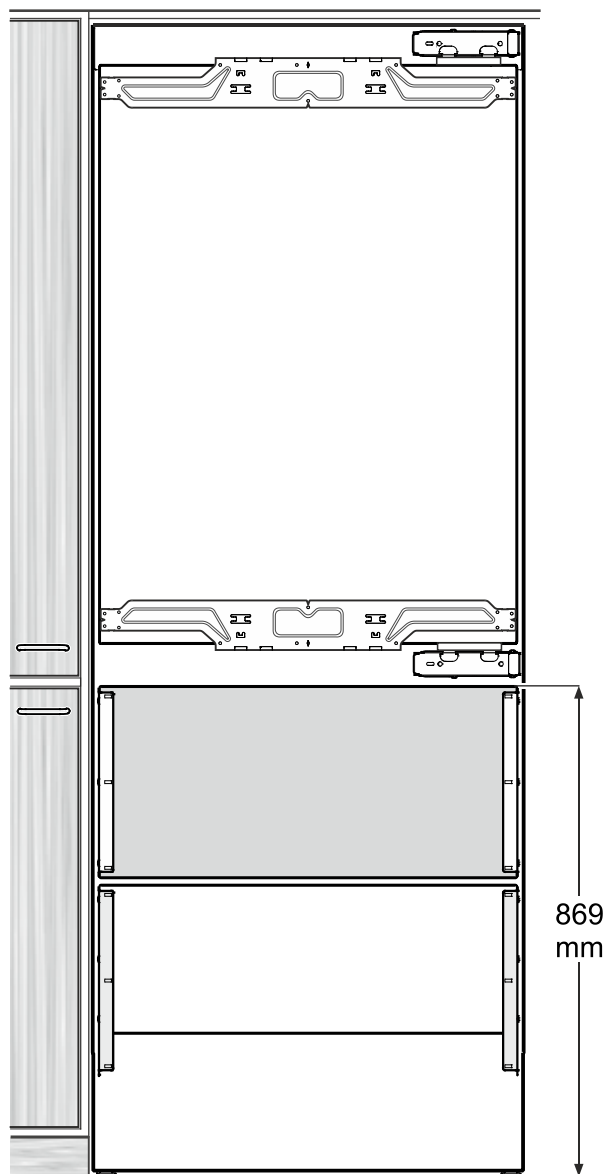
Recess depth **T** for installations with internal door panel = 610 mm + **panel thickness**

Note

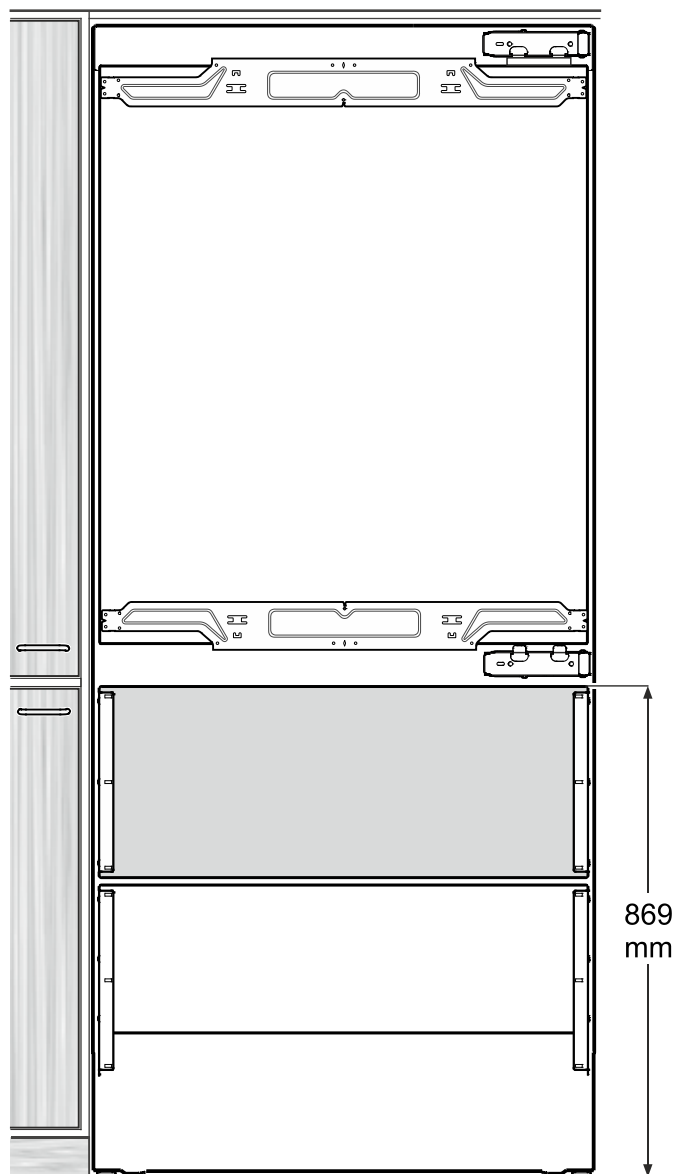
20 mm thick stainless steel panels for internal installation are available as accessories. If these panels are used, a recess depth of 630 mm is required.

Storage centres for integrated use

Height adjustment in the recess ECBN 5066



Height adjustment in the recess EC(B)N 6156

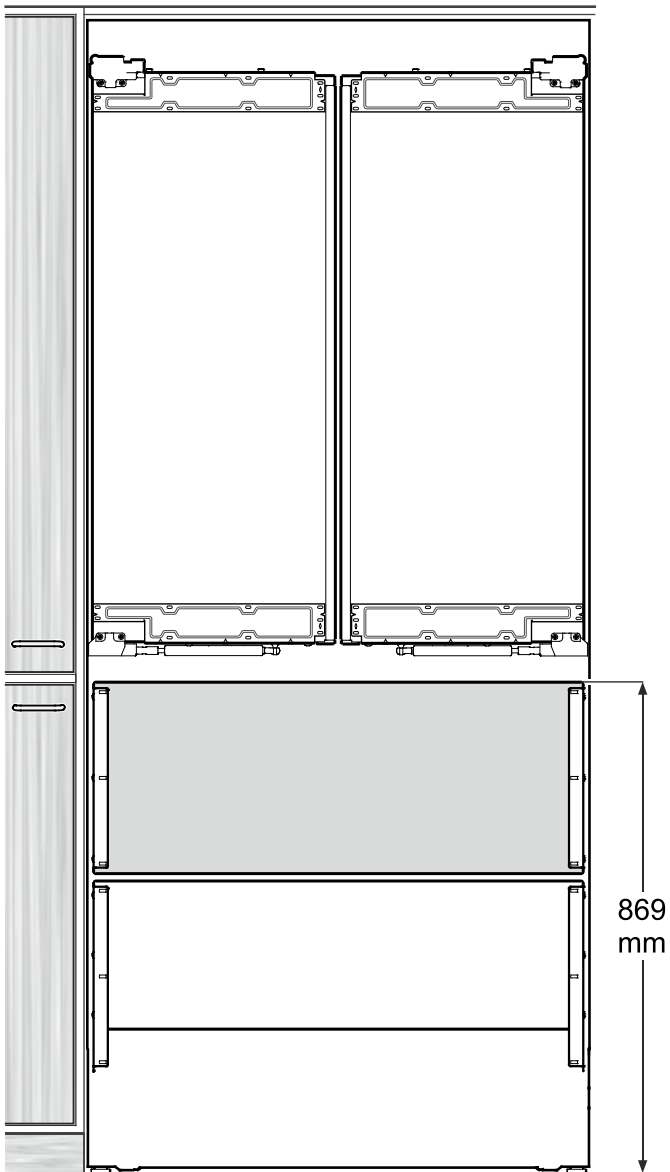


Adjust the appliance in the recess to a **reference height** of **869 mm**, measured from the floor to the top of the upper freezer drawer.

IMPORTANT

This height adjustment is very important. It provides the basis for the correct positioning of the front panels.

Height adjustment in the recess EC(B)N 6256



Adjust the appliance in the recess to a **reference height of 869 mm**, measured from the floor to the top of the upper freezer drawer.

IMPORTANT

This height adjustment is very important. It provides the basis for the correct positioning of the front panels.

Storage centres for integrated use

Appliance venting

No ventilation openings are required in the kitchen unit for the EC(B)N appliance series.
The air is exchanged through the appliance plinth.



Refrigerant R600a

The refrigerant R600a used in the appliances is environmentally friendly but inflammable.



WARNING

Danger of fire through overheating as a result of inadequate ventilation.

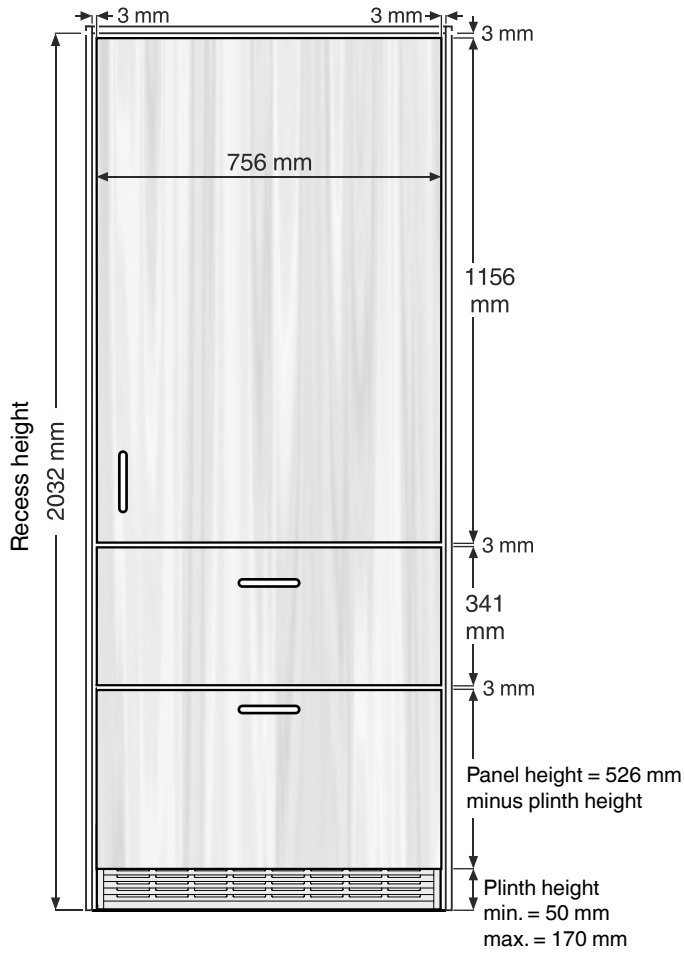
Do not cover the ventilation openings.

Only use the ventilation grille supplied for the appliance plinth.

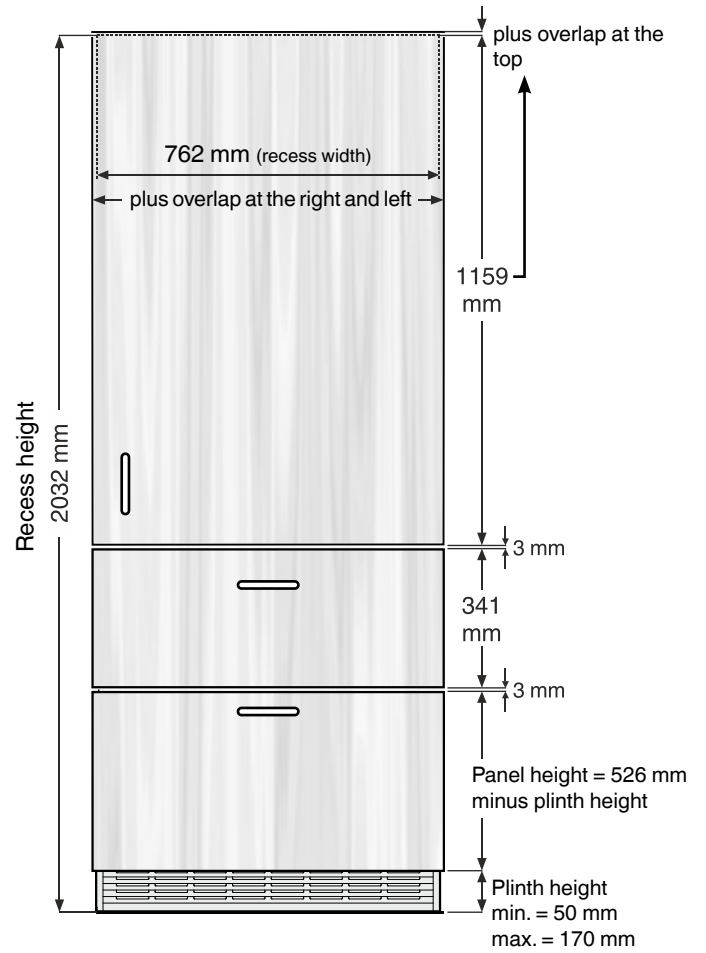
Storage centres for integrated use

Panel dimensions for ECBN 5066

Internal door panel



External door panel



Minimum panel thickness = 16 mm
Maximum panel thickness = 19 mm

Maximum admissible weight of the refrigerator panel = 27 kg
Maximum admissible weight of a single freezer panel = 12 kg

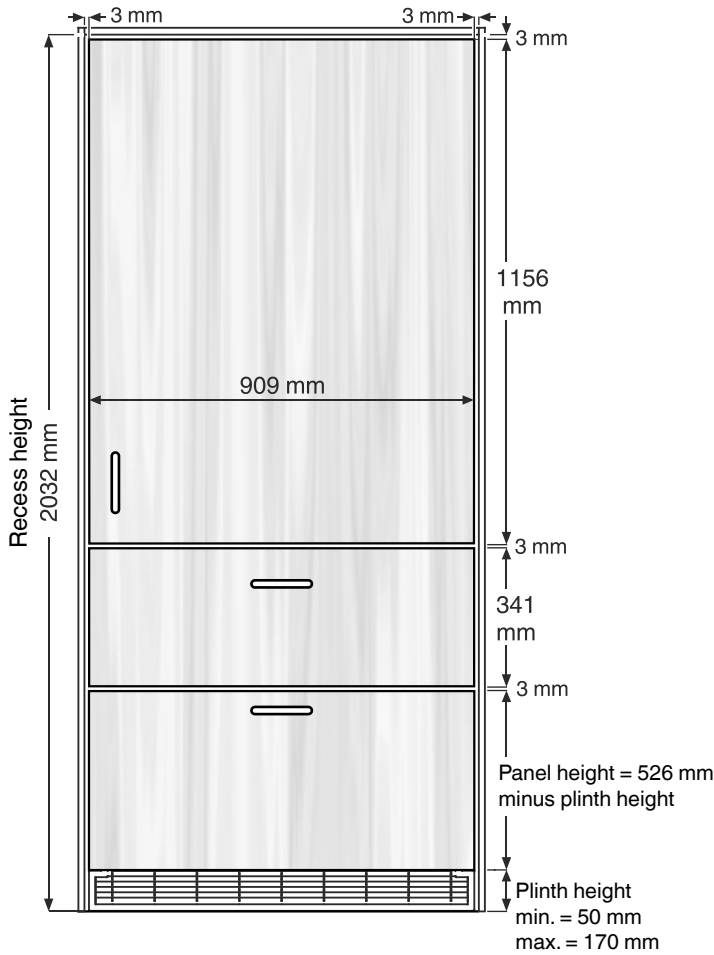
IMPORTANT

It is vital that you refer to the collision grids on pages 20 and 21.

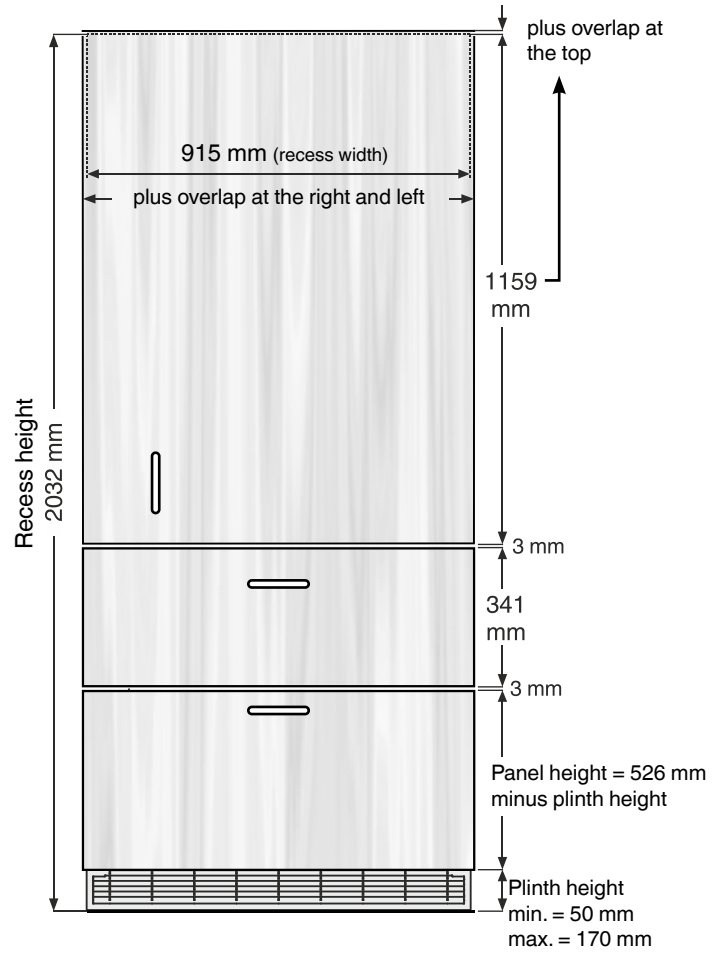
Storage centres for integrated use

Panel dimensions for EC(B)N 6156

Internal door panel



External door panel



Minimum panel thickness = 16 mm
Maximum panel thickness = 19 mm

Maximum admissible weight of the refrigerator panel = 27 kg
Maximum admissible weight of a single freezer panel = 12 kg

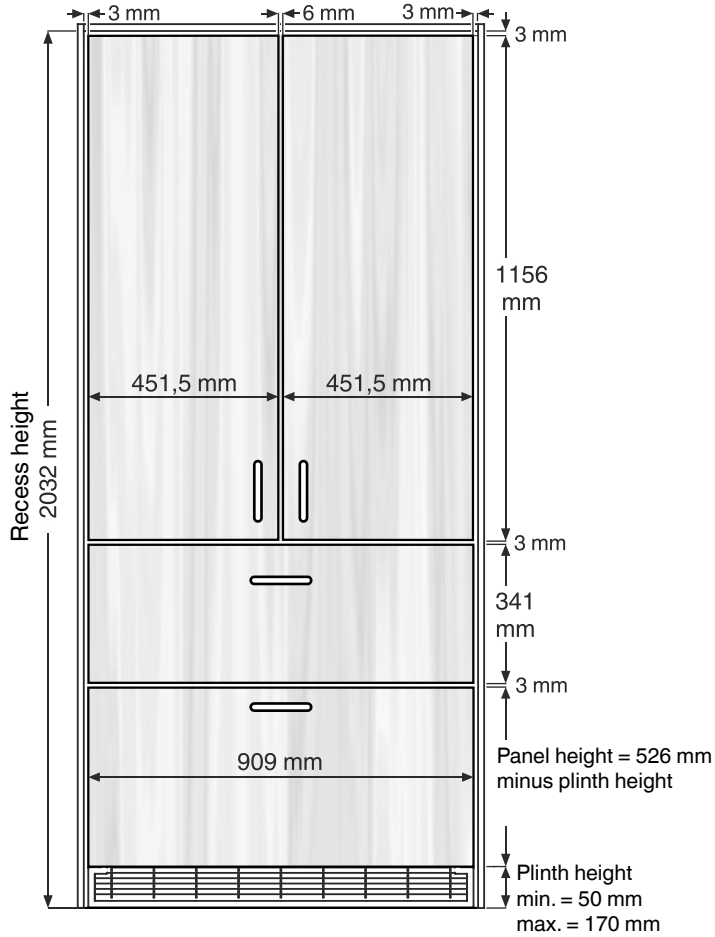
IMPORTANT

It is vital that you refer to the collision grids on pages 20 and 21.

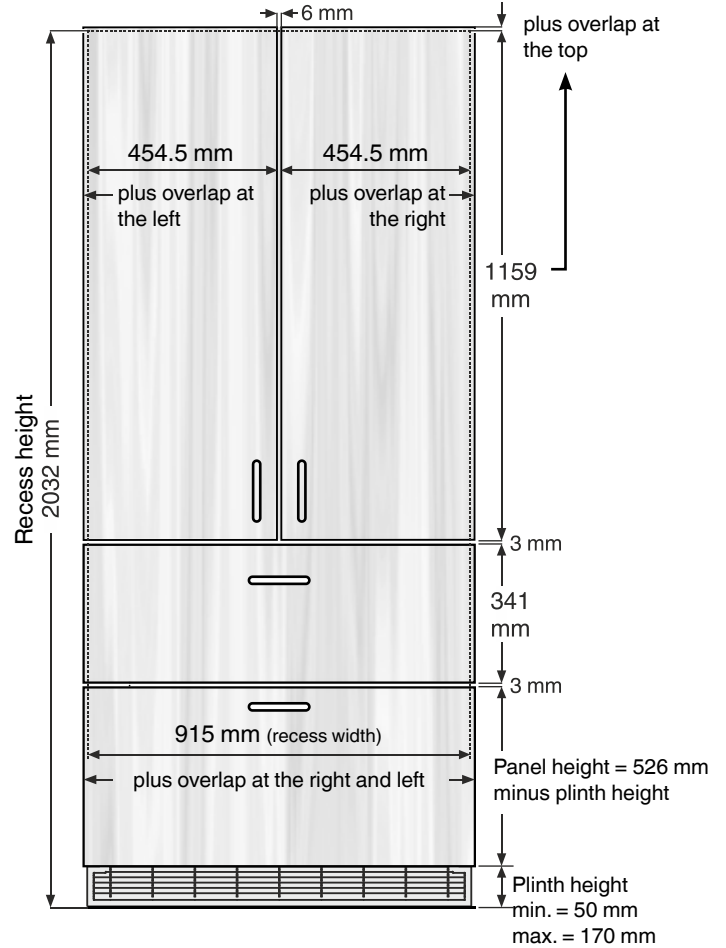
Storage centres for integrated use

Panel dimensions for EC(B)N 6256

Internal door panel



External door panel



Minimum panel thickness = 16 mm
 Maximum panel thickness = 19 mm

Maximum admissible weight of a single refrigerator panel = 12 kg
 Maximum admissible weight of a single freezer panel = 12 kg

IMPORTANT

It is vital that you refer to the collision grids on pages 22 to 25.

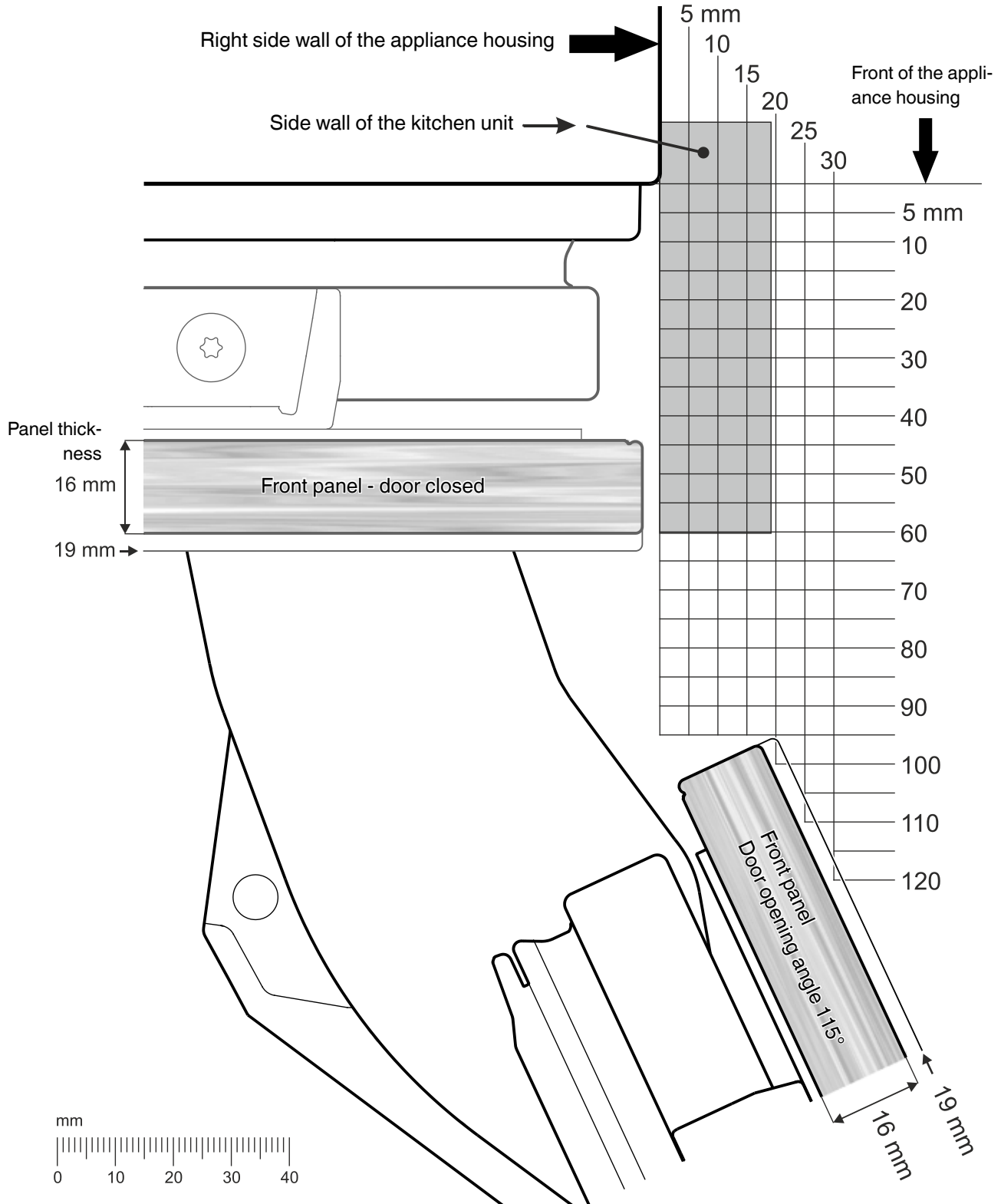
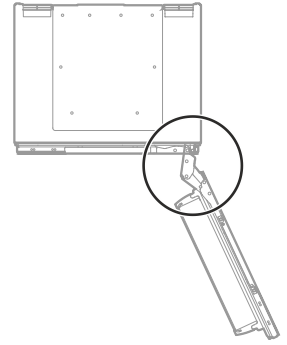
Storage centres for integrated use

Door panel collision grid - internal door panel ECBN 5066, EC(B)N 6156

The illustration shows the gaps required to avoid collisions with neighbouring parts when the door is opened.

The illustration is in original size. If you print out this page, ensure that no scaling has been set in the printer options.

View from above



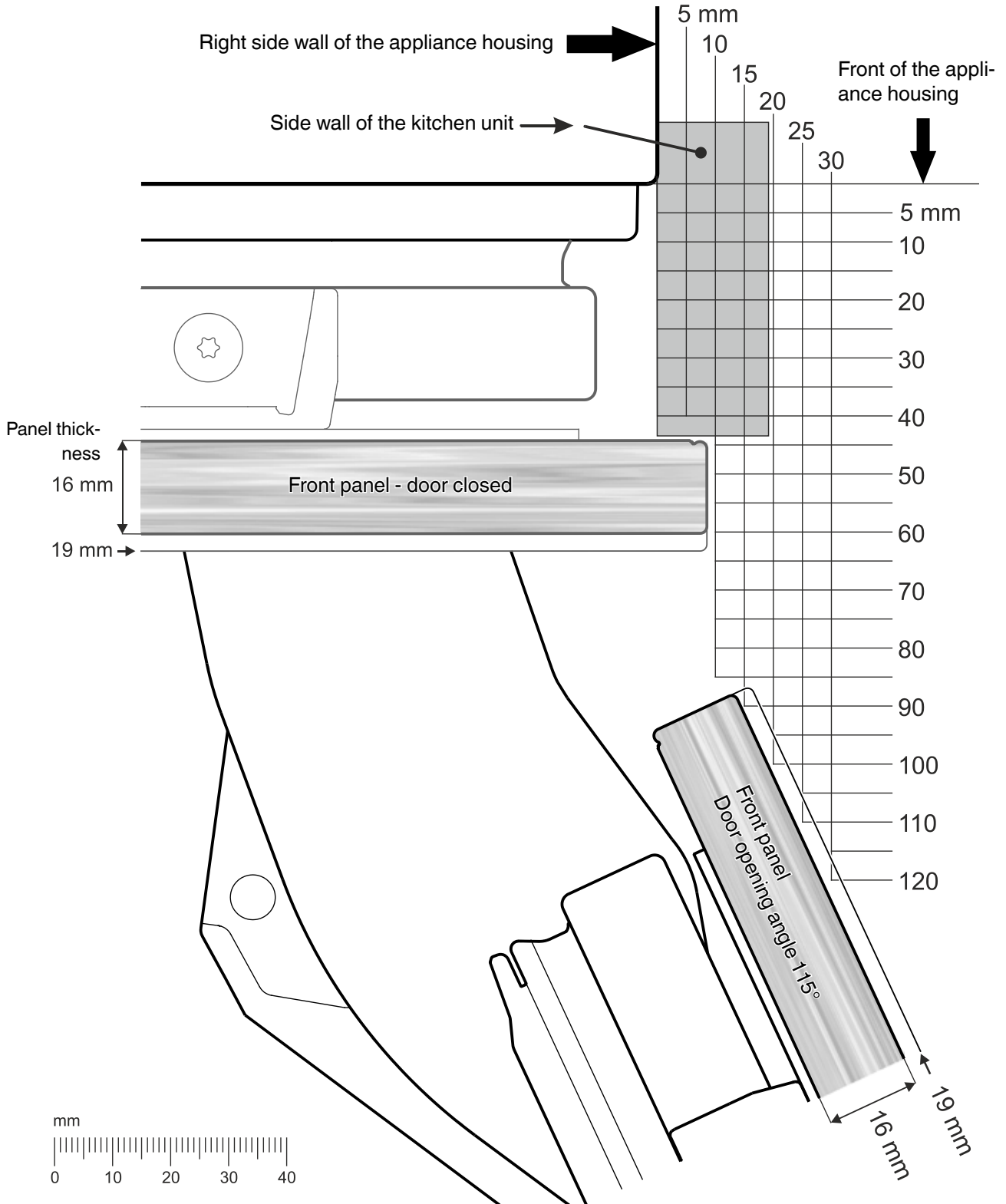
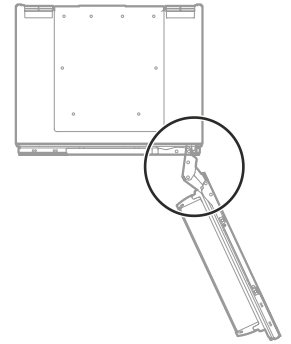
Storage centres for integrated use

Door panel collision grid - external door panel ECBN 5066, EC(B)N 6156

The illustration shows the gaps required to avoid collisions with neighbouring parts when the door is opened.

The illustration is in original size. If you print out this page, ensure that no scaling has been set in the printer options.

View from above



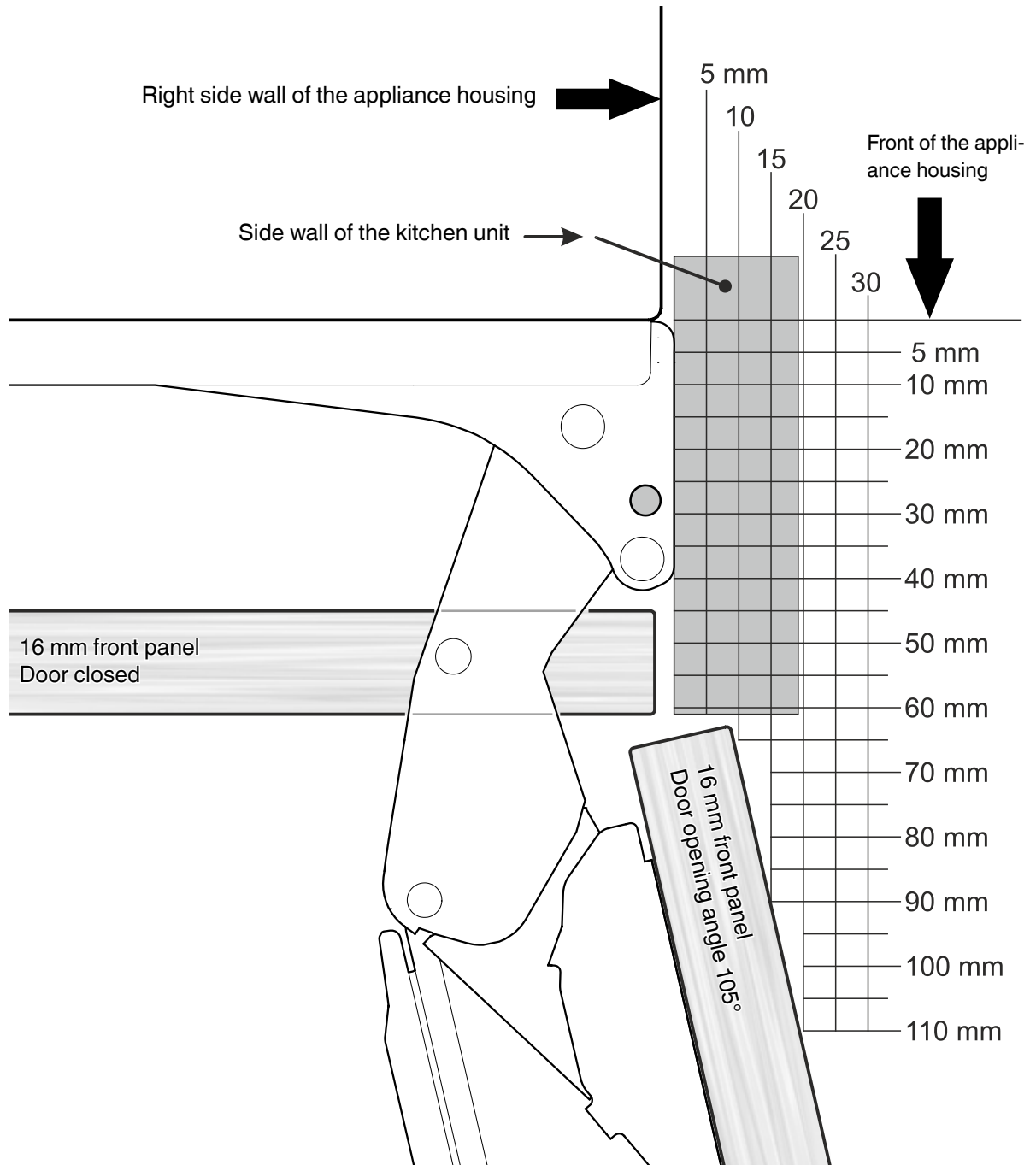
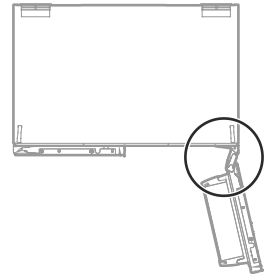
Storage centres for integrated use

Door panel collision grid - 16 mm internal door panel EC(B)N 6256

The illustration shows the gaps required to avoid collisions with neighbouring parts when the door is opened.

The illustration is in original size. If you print out this page, ensure that no scaling has been set in the printer options.

View from above



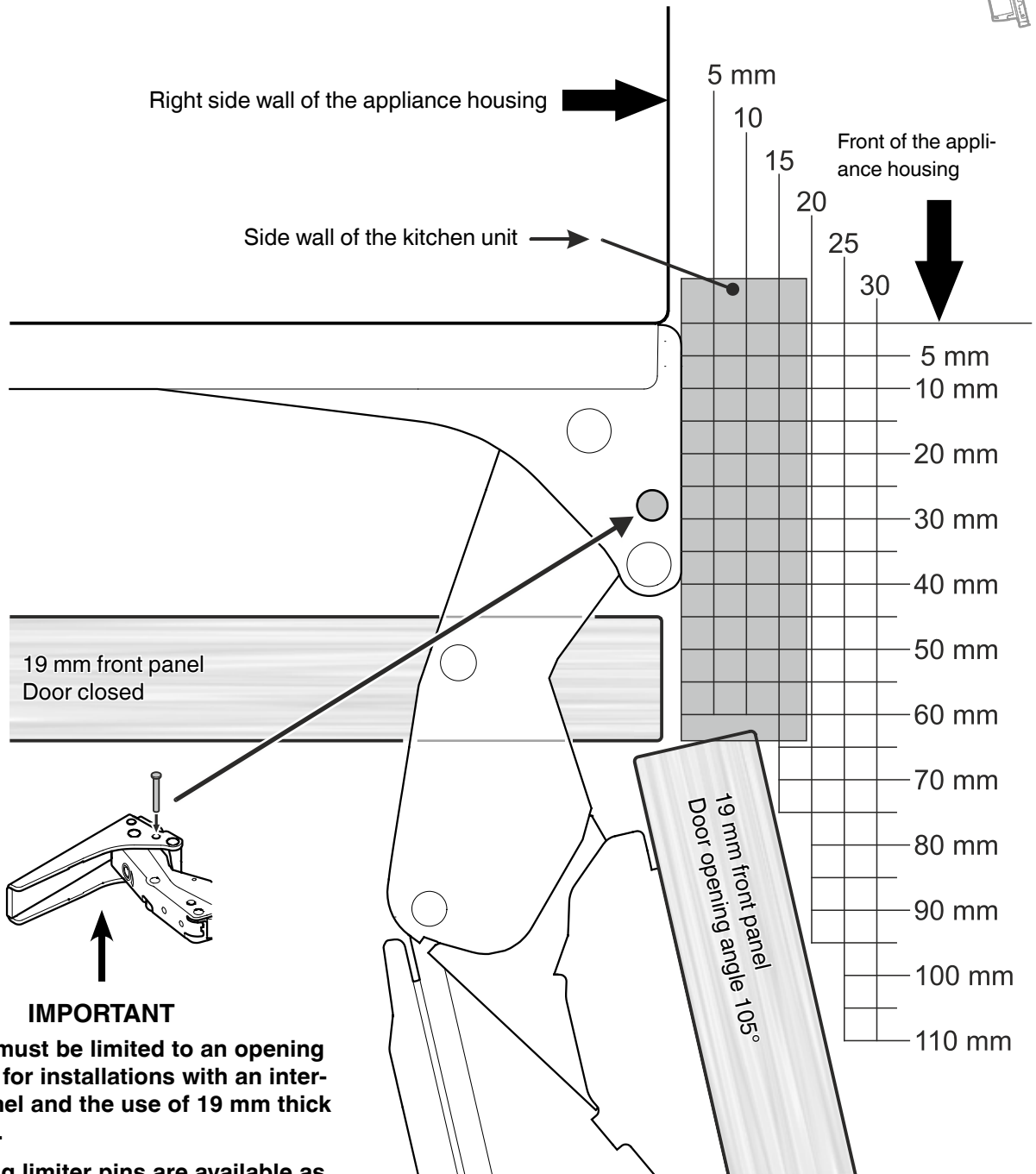
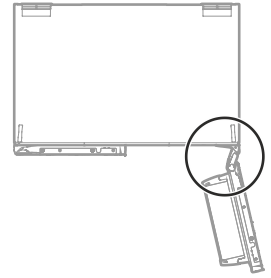
Storage centres for integrated use

Door panel collision grid - 19 mm internal door panel EC(B)N 6256

The illustration shows the gaps required to avoid collisions with neighbouring parts when the door is opened.

The illustration is in original size. If you print out this page, ensure that no scaling has been set in the printer options.

View from above



IMPORTANT

The hinges must be limited to an opening angle of 95° for installations with an internal door panel and the use of 19 mm thick front panels.

Door opening limiter pins are available as accessories.

The panel will collide with the front frame of the kitchen unit at an opening angle of 105°.



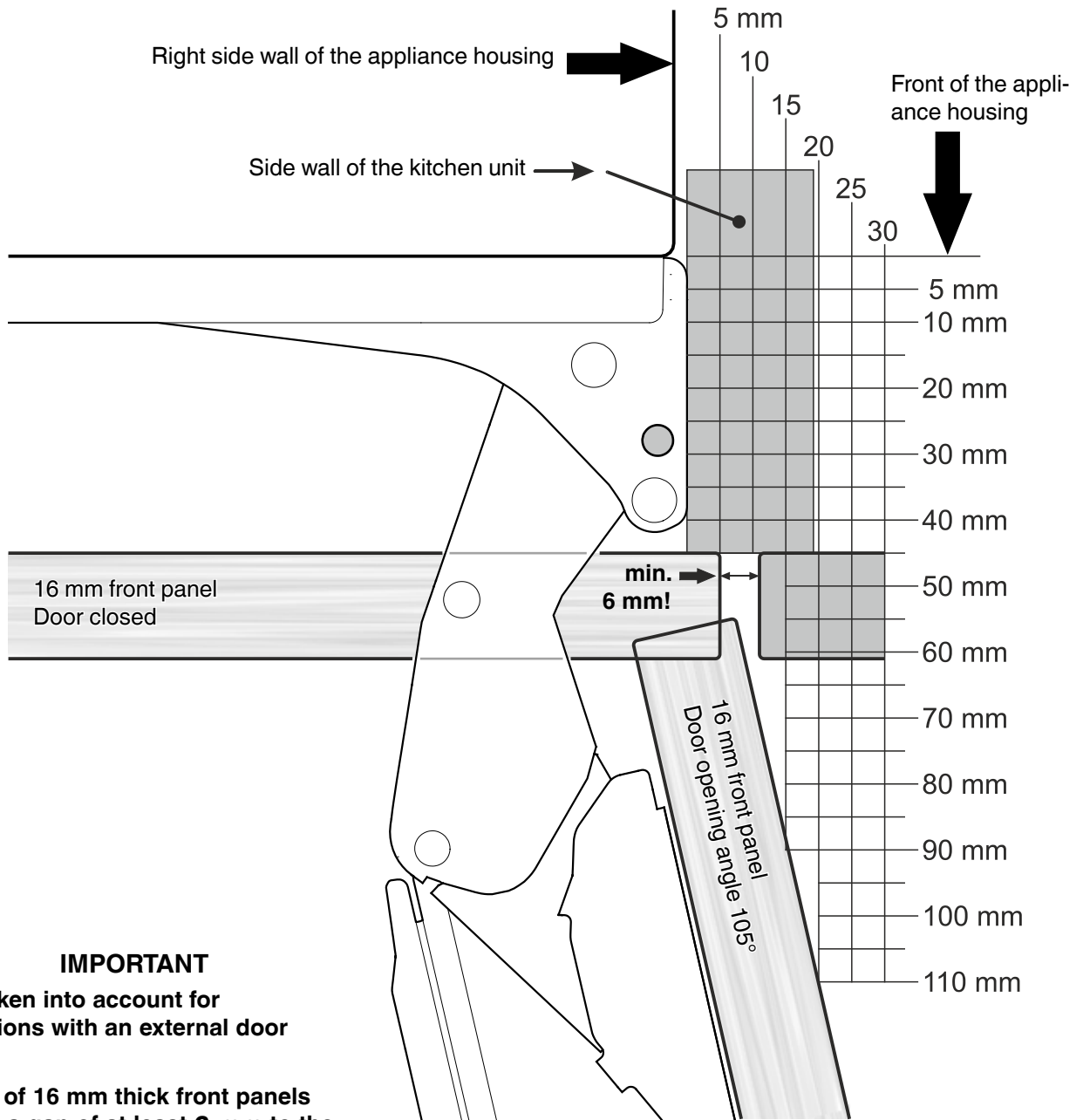
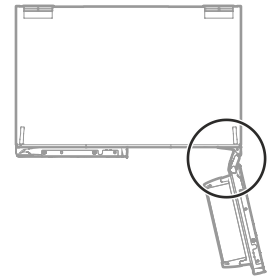
Storage centres for integrated use

Door panel collision grid - 16 mm external door panel EC(B)N 6256

The illustration shows the gaps required to avoid collisions with neighbouring parts when the door is opened.

The illustration is in original size. If you print out this page, ensure that no scaling has been set in the printer options.

View from above



IMPORTANT

To be taken into account for installations with an external door panel.

The use of 16 mm thick front panels requires a gap of at least 6 mm to the neighbouring door panel.

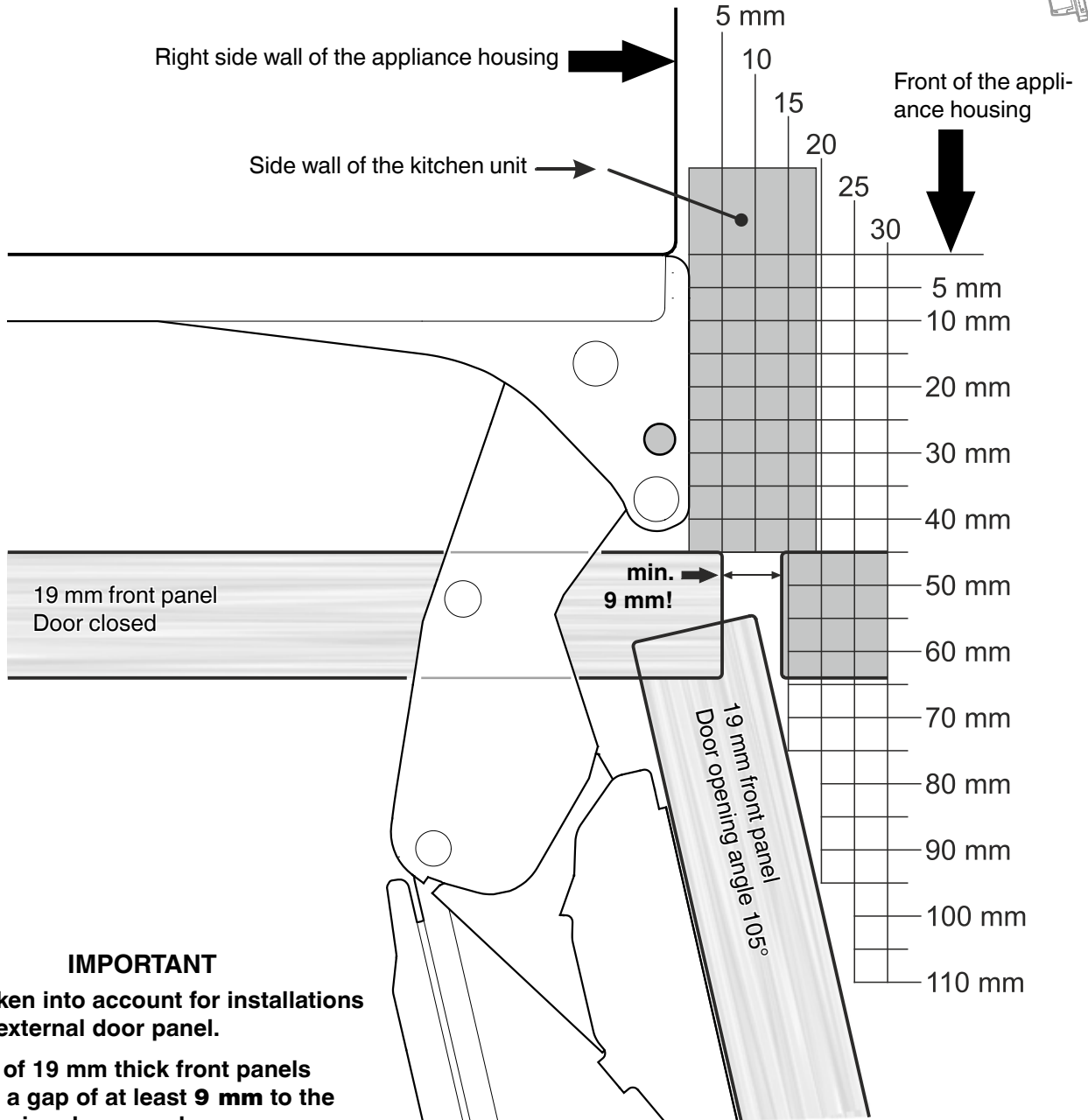
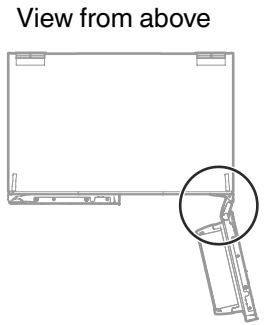
If the gap is less than 6 mm, the front vertical edge of the door panel will collide with the front vertical edge of the neighbouring panel when the door is opened.



Storage centres for integrated use

Door panel collision grid - 19 mm external door panel EC(B)N 6256

The illustration shows the gaps required to avoid collisions with neighbouring parts when the door is opened. The illustration is not to original size.



IMPORTANT

To be taken into account for installations with an external door panel.

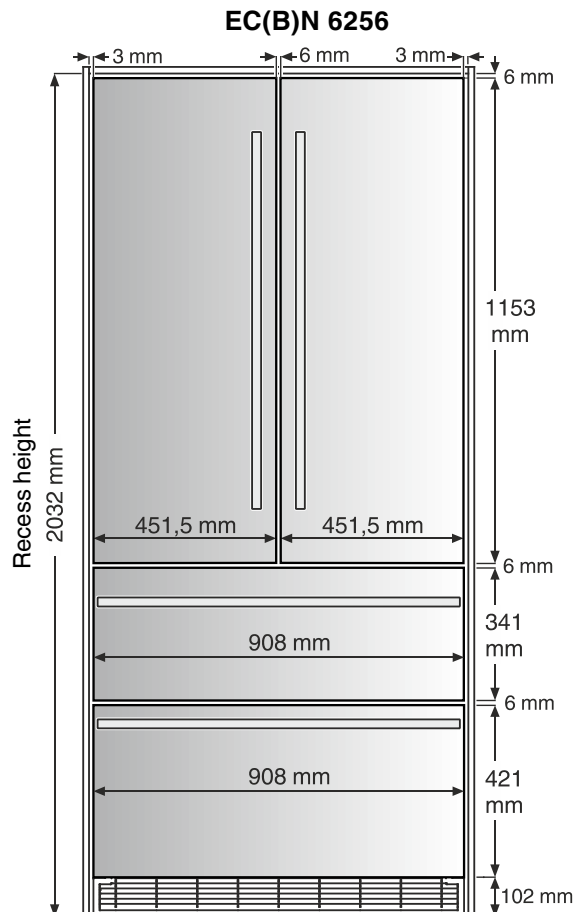
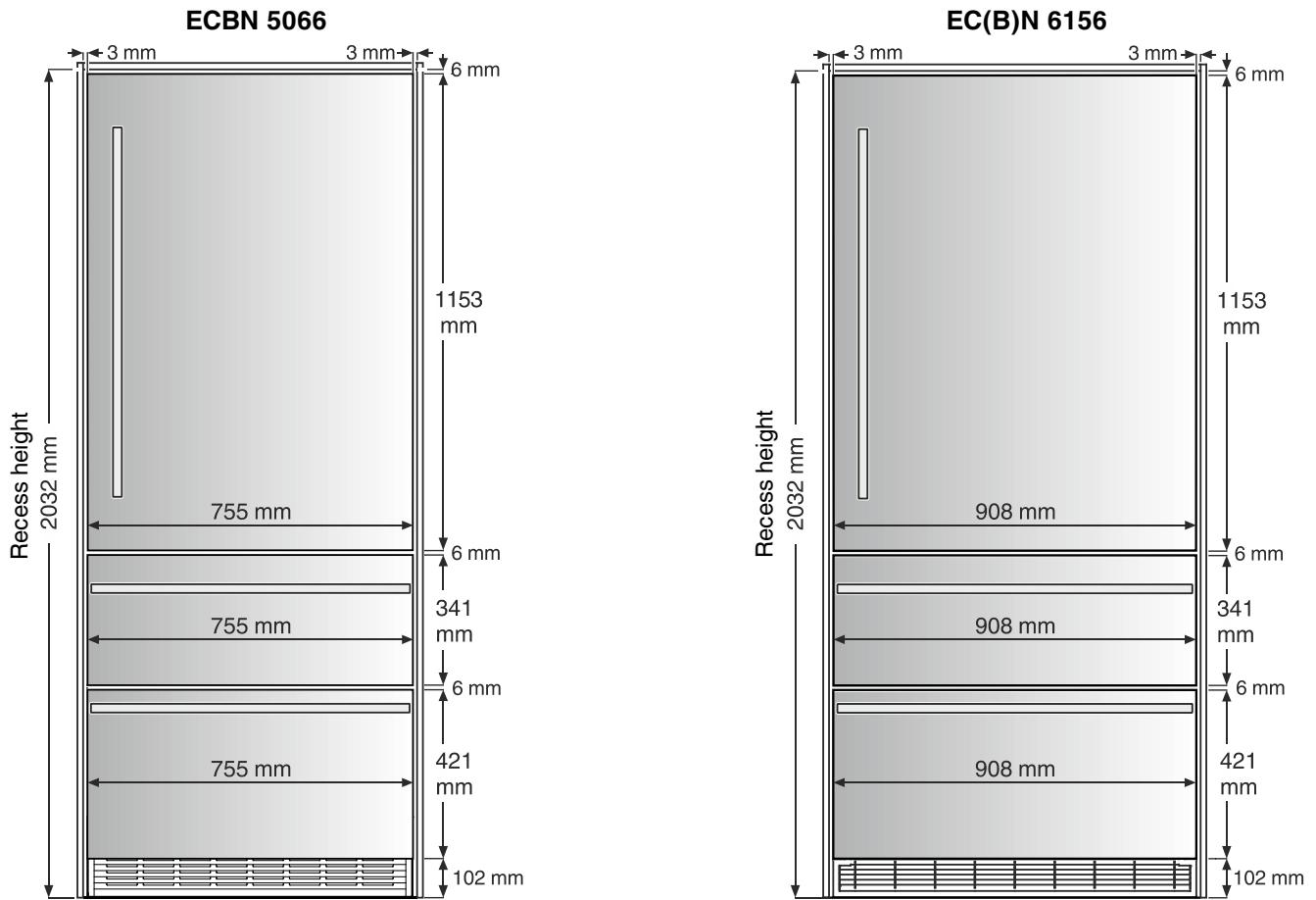
The use of 19 mm thick front panels requires a gap of at least **9 mm** to the neighbouring door panel.

If the gap is less than 9 mm, the front vertical edge of the door panel will collide with the front vertical edge of the neighbouring panel when the door is opened.




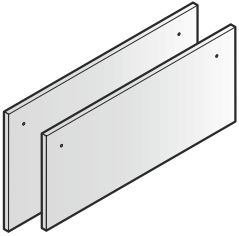
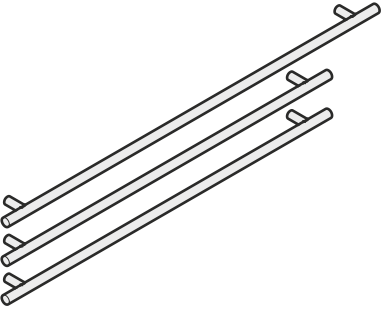
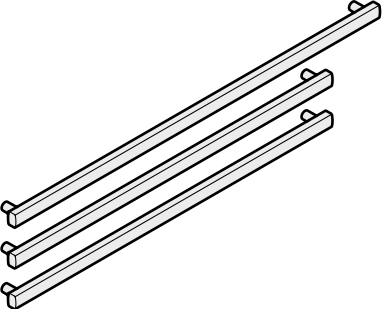
Storage centres for integrated use

Panel dimensions for accessory stainless steel panels and gap dimensions

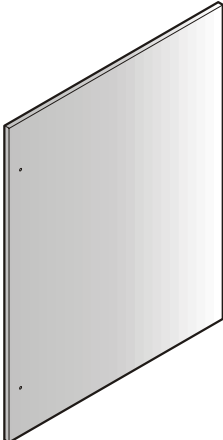
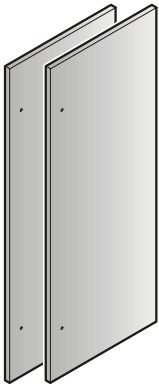
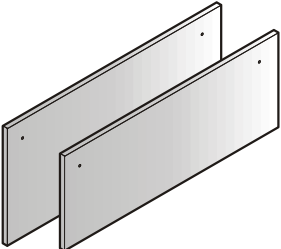


Storage centres for integrated use

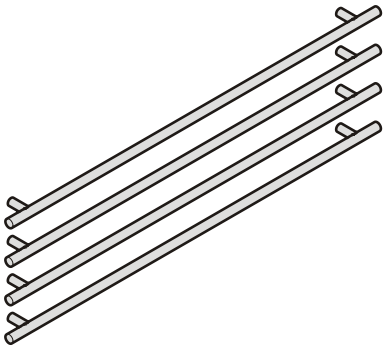
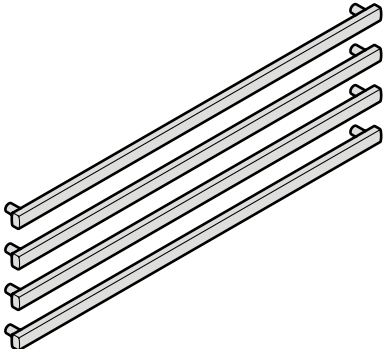
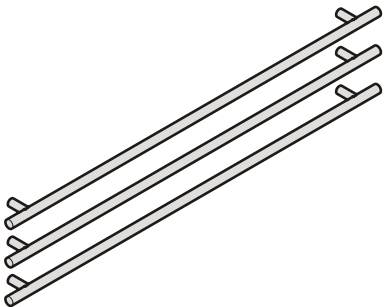
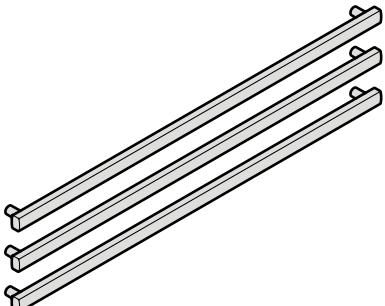
Accessories

Illustration	Part No.	Description	For use with model
	9900 287-00	Stainless steel panel, refrigerator door (installations with internal door panel only)	ECBN 5066
	9900 283-00	Stainless steel panel, freezer drawers (installations with internal door panel only)	ECBN 5066
	9900 279-00	Stainless steel handle set	ECBN 5066
	9900 281-00	Aluminium handle set	ECBN 5066

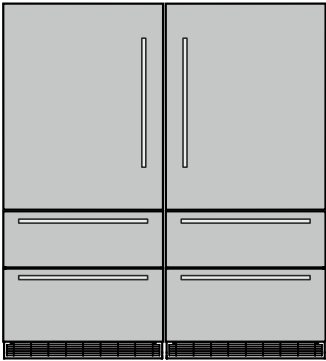
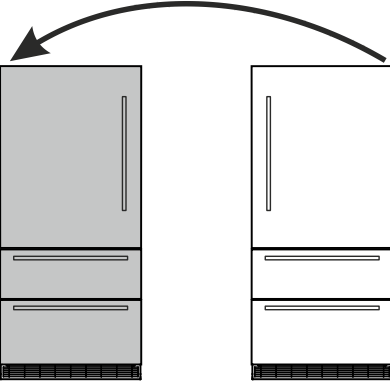
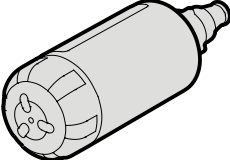
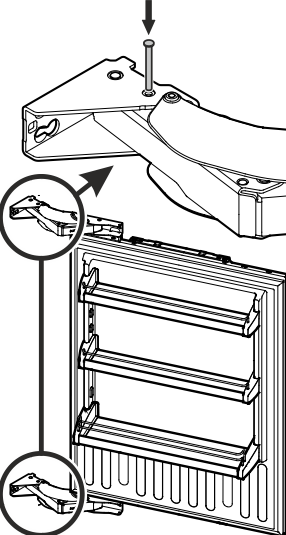
Storage centres for integrated use

Illustration	Part No.	Description	For use with model
	9900 333-00	Stainless steel panel, refrigerator door (installations with internal door panel only)	EC(B)N 6156
	9900 337-00	Stainless steel panel, refrigerator door (installations with internal door panel only) <p style="text-align: center;">Note</p> <p>The use of these panels requires the door opening to be limited to 95°.</p> <p>The door opening limiter pins (Part No. 9096 214-00) must be inserted into the hinges (see Accessories, page 31).</p>	EC(B)N 6256
	9900 323-00	Stainless steel panel, freezer drawers (installations with internal door panel only)	EC(B)N 6156 EC(B)N 6256

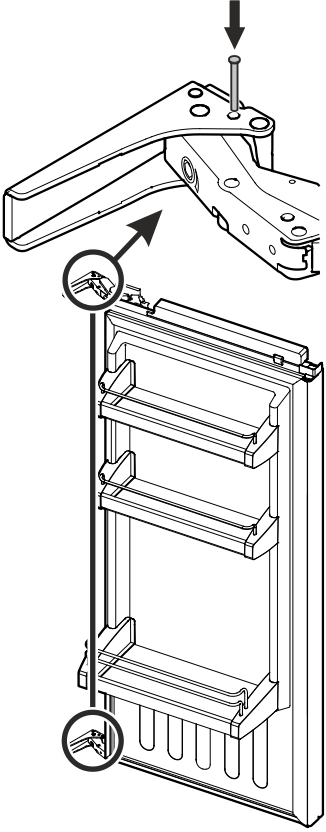
Storage centres for integrated use

Illustration	Part No.	Description	For use with model
	9900 339-00	Stainless steel handle set	EC(B)N 6256
	9900 513-00	Aluminium handle set	EC(B)N 6256
	9900 327-00	Stainless steel handle set	EC(B)N 6156
	9900 329-00	Aluminium handle set	EC(B)N 6156

Storage centres for integrated use

Illustration	Part No.	Description	For use with model
	<p>9900 157-00</p> <p>9900 155-00</p>	<p>Side-by-side installation kit Contains side wall heater, heater transformer, connecting elements, covers and installation instructions.</p> <p>Side-by-side installation kit Contains side wall heater, heater transformer, connecting elements, covers and installation instructions.</p>	<p>ECBN 5066</p> <p>EC(B)N 6156</p>
	<p>9900 167-00</p> <p>9900 165-00</p>	<p>Door hinge conversion kit</p> <p>Door hinge conversion kit</p>	<p>ECBN 5066</p> <p>EC(B)N 6156</p>
	<p>7440 002-00</p>	<p>Water filter</p>	<p>ECBN 5066 EC(B)N 6156 EC(B)N 6256</p>
	<p>9096 699-00</p>	<p>Door opening limiter pins Limit the opening angle of the door hinges to 90° Contains 2 pins with installation instructions</p>	<p>ECBN 5066 EC(B)N 6156</p>

Storage centres for integrated use

Illustration	Part No.	Description	For use with model
	9096 214-00	Door opening limiter pins Limit the opening angle of the door hinges to 95° Contains 2 pins with installation instructions	EC(B)N 6256

