Purely quiet luxury

Gaggenau ventilation and planning

GAGGENAU

Enjoy the difference

Uncompromising ventilation

Since 1960, Gaggenau has been dedicated to crafting ventilation appliances for private kitchens. Our approach is deeply rooted in professional standards, drawing upon a wealth of expertise garnered from the world of culinary professionals, while understanding the contemporary preferences of home chefs. The outcome is a ventilation solution that leaves no room for compromise – flawless air extraction, meticulously tailored to meet a diverse range of construction needs: personalised, quiet, and highly efficient.

High-quality materials, meticulous manufacturing processes and intelligent planning ensure that ambitious home chefs enjoy fresh air when working in the kitchen.

The difference is Gaggenau.

Contents

The product groups

Kitchen vapours contain not only aromas and moisture, but also tiny grease particles. Trapping these particles is one of the biggest challenges for an effective ventilation appliance, along with eliminating odours. The fact that kitchens are increasingly being integrated into living areas in the home is why good ventilation appliances are more important today than ever before. That is why in addition to searching for better ideas for providing clean air, we also strive to conceive more attractive ones.

Convincing technology, aesthetic perfection and high quality materials sum up what Gaggenau has always stood for: design, quality and tradition.

Sophisticated product design always considers the effect within the room. Our six different types of ventilation offer an ideal solution for different spatial conditions and personal preferences.

We differentiate here between the almost invisible systems – such as downdraft ventilation and table ventilation – and those specifically crafted to lend a design accent to a room. All Gaggenau ventilation appliances can be installed for either air extraction or air recirculation modes. Your choice of ventilation appliance type depends entirely on aesthetic preferences and installation conditions in the room.

The ventilation 400 series

This series boasts a variety of design options and allows the focus to remain on what matters most in the kitchen; on producing meals that are sure to impress. It is quiet and efficient technology combined with sculptural design. Different models ensure the right technical fit for every spatial situation.

The telescopic table ventilation extracts cooking vapours where they originate; right at the cooktop. This makes it magnificently effective and particularly suitable for very large rooms and kitchen islands. The remote fan unit is concealed in the lower cabinet. It can also be installed in the cabinet plinth, an adjacent room or on the exterior wall to save space. Positioned behind the cooktop, the table ventilation leaves the space over the cooktop open and remains a background element thanks to its retractable design. This type of ventilation can be used as a highly effective air recirculation or air extraction solution.

The downdraft ventilation offers more than just invisibility. It extracts downwards from where it is integrated in the worktop, whether directly next to, or between individual cooktops. The cooking vapours can therefore be extracted before they mix with the ambient air.

The ventilation 200 series

This series provides clean air in any kitchen — remarkably effective with compelling design and functionality. Whether discreet like the downdraft ventilation or making a strong architectural statement like the wall mounted rangehoods, the 200 series models have three things in common: they are powerful, individual and efficient.

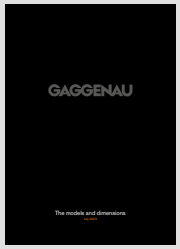
The 200 series downdraft table ventilation uses Guided Air technology; additional air flow behind the screen that captures more vapour in front of the screen. This innovation increases the air extraction from pans anywhere on the cooktop. Valuable drawer space is saved and installation is simplified as only one cut-out is needed.

One of the first innovations that Gaggenau developed for ventilation was the slide out rangehood. It has the advantage of taking up very little space because it is mounted inside the upper cabinet, and, with the addition of the optional lowering frame, it can be completely concealed from view.

The downdraft ventilation offers more than just invisibility. Integrated in the worktop, the downdraft extracts downwards from where it's installed; whether directly next to or between individual cooktops. The cooking vapours can therefore be extracted before they mix with the ambient air.

The integrated rangehoods can be completely concealed within cabinetry. Perfect for compact individual design solutions; integrated rangehoods work very effectively and with an extremely low level of noise.

To view technical installation drawings and more, please see Gaggenau's Models & Dimensions by scanning the QR code.



The wall mounted rangehood, where cupboards are not in the way, are equipped with advanced technology and purist box-style design. Available in 90cm of stainless steel, their energy-efficient performance is neatly packaged into an attractive, easy to clean, flat underside with near-complete odour elimination.

The planning

The air output and air requirement are decisive factors in the planning of a ventilation appliance. The air requirement depends primarily on the planned cooktop, the space in question and the design and positioning of the ventilation appliance. The air requirement must be considered in relation to the corresponding air output that a ventilation appliance can deliver, without taking into account the effects of all ventilation appliance components.

The air requirement

The aim of good ventilation appliance planning is to ensure that the cooking vapours are extracted from the kitchen area as thoroughly and quickly as possible. The size of the kitchen and the corresponding air exchange rate based on the room volume are often used as a basis for planning. The air flow rate of the ventilation appliance should correspond to the calculated room volume.

The formula for optimal performance is: pleasant indoor climate (no draught) at an air exchange (cleaning and replacement) of 6–12 x room volume/h. We recommend this method only when the distance between the ventilation appliance and the cooktop is more than 1.2m.

In the air extraction mode, the air requirement for the air exchange rate is calculated with the factor 10. If special cooking appliance such as Vario Teppan Yaki or Vario electric grill are used, you should calculate with the factor 12. In the air recirculation mode, the air requirement for the air exchange rate is generally calculated with the factor 12.

If the distance between the ventilation appliance and the cooktop is less than 1.2m, the factors listed below must be taken into account:

1 The cooking appliances
2 The size and architecture of the kitchen
3 The type of ventilation appliance
4 The distance to the cooktop
5 The operation mode
6 The remote fan units

1 The cooking appliances

The selection of the cooktop is the decisive factor. Different cooktops produce different types and quantities of cooking vapours. This is why the choice of cooktop is the key to determining the correct air output for the ventilation appliance to be used. The wider the cooktop, the greater the output of the ventilation appliance. The ventilation appliance must have sufficient power reserves, especially when plans call for installing special Vario cooking appliances such as the Teppan Yaki, wok or grill. This is because a greater quantity of cooking vapours can be expected with such appliances. We therefore also recommend that these special cooking appliances be installed in the middle of the cooktop configuration and not on the outside edges.

2 The size and architecture of the kitchen

Our first consideration is the size of the kitchen and whether the room in question is enclosed or opens onto the living space. A rule that applies here is: the larger the room, the greater the movement of air which increases the air requirement. This effect is intensified in open kitchens, in kitchens with kitchen islands or kitchen peninsulas and in kitchens whose users cook frequently and with several other people. In other words, the effect is different in enclosed kitchens with areas of up to 10m^2 than in larger kitchens or in kitchens that open onto living spaces. And we differentiate between wall installations and islands or peninsulas.

3 The type of ventilation appliance

Each type of ventilation appliance has specific characteristics that affect the air requirement.

Ventilation appliances, such as downdraft ventilation and table ventilation, extract air right at the cooktop. This prevents rising cooking vapours from spreading into the ambient air. As a rule, less air output is needed with these types than with ventilation appliances where the distance to the cooktop is 80cm or more. One or more downdraft ventilation appliances must be used depending on the width of the cooktop.

Recommendation
Each downdraft ventilation appliance must be connected to an individual remote fan. Multiple ventilation appliances cannot be connected to a single remote fan. The maximum cooktop width between two downdraft appliances (VL): 60cm.

For all other types of ventilation, the ventilation appliance selected should always be wider than the cooktop below it. The rule of thumb is: the greater the distance to the cooktop, the wider and more powerful the chosen ventilation appliance. This is modified according to the size of the vapour collection area. After all, cooking vapours always spread to the sides as they rise.

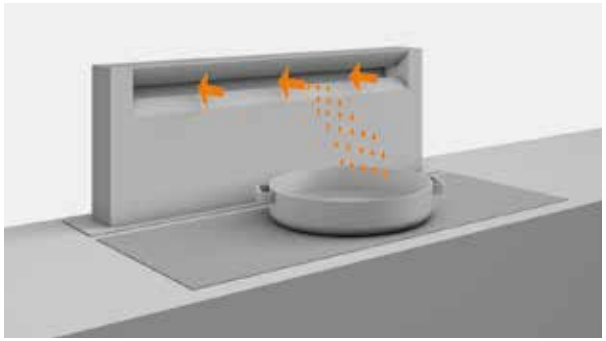
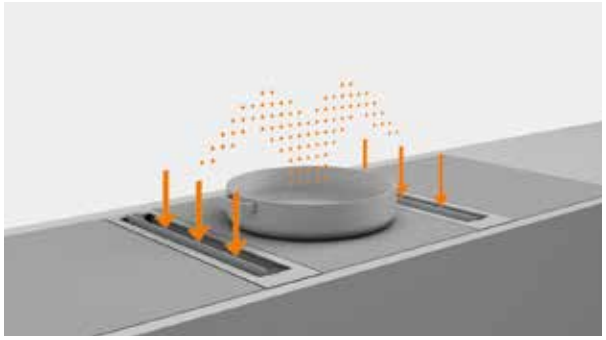
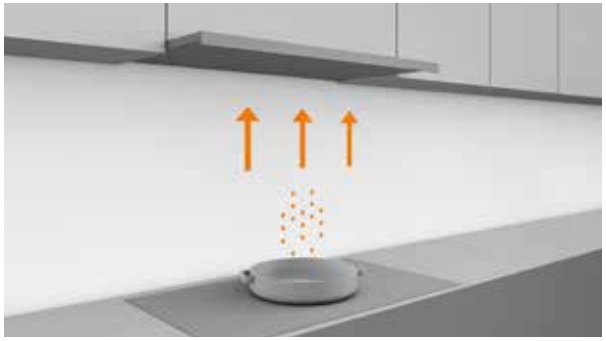


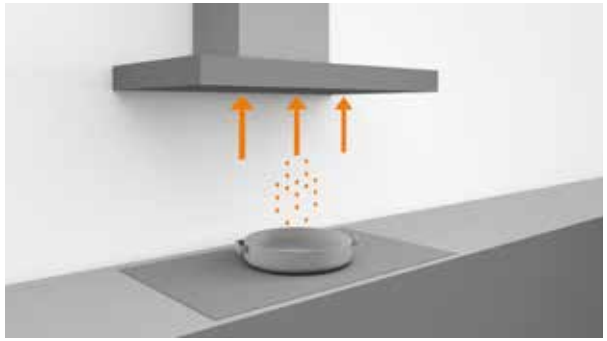
Table ventilation



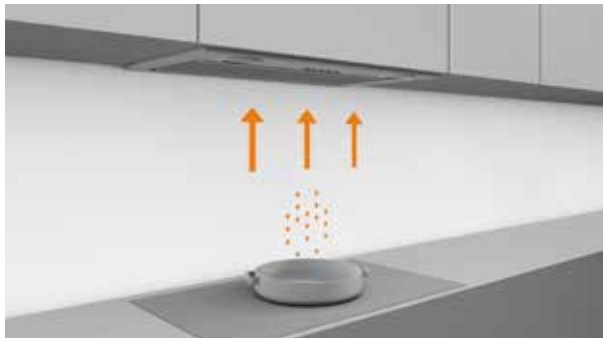
Downdraft ventilation



Slide out rangehood



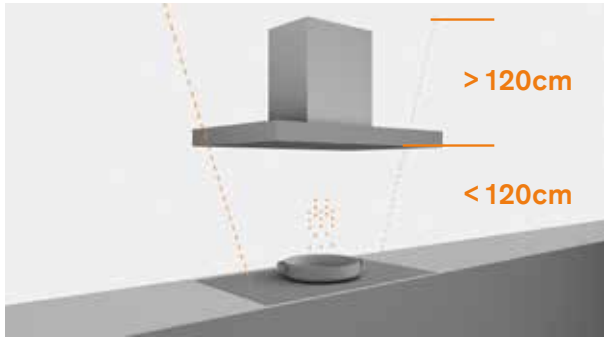
Wall mounted rangehood



Integrated rangehood

4 The distance to the cooktop

The minimum distance between the worktop and the lower edge of the respective ventilation appliance is specified in the planning instructions of The Models and Dimensions publication and at www.gaggenau.com.au. It is imperative that this is adhered to. The extraction capacity reduces as the distance increases. This must also be considered during planning.



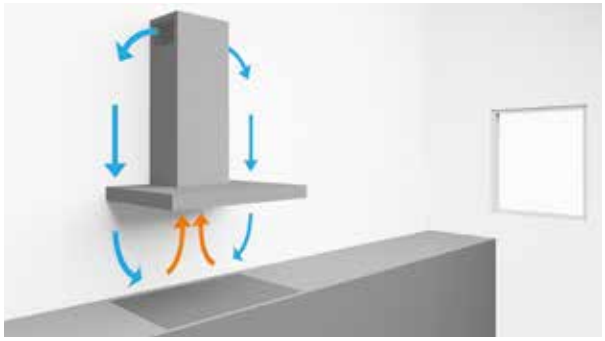
The distance of the ventilation appliance to the cooktop is essential for the methods used to determine the air requirement

Up to a distance of approximately 1.20m between the ventilation appliance and the cooktop, it can be assumed for proper planning that the majority of the resulting cooking vapours will be extracted directly. In this case, the choice of cooktop is the decisive factor for calculating the required air flow rate.

As the distance increases, it's more likely the cooking vapours will no longer be completely captured by the ventilation appliance, but will also be distributed in the room. In this case, the ventilation appliance must ensure air exchange within the entire room. Ventilation appliances with a follow-up function – which continue to run even after cooking – are advantageous in this context. The air requirement for this should be calculated using the room volume.

5 The operation mode

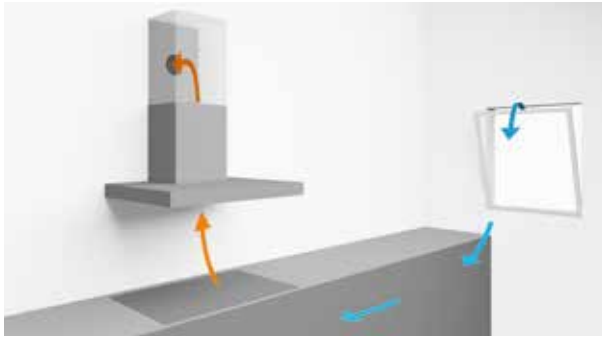
All Gaggenau ventilation appliances can be installed for either air extraction or air recirculation modes. Your choice of ventilation appliance type depends entirely on aesthetic preferences and installation conditions in the room.



Air recirculation mode

Air recirculation mode

In air recirculation mode, cooking vapours and grease particles are purified by the grease filter and the air is fed back into the room. The activated charcoal filter removes the entrained odour particles prior to feeding the air back into the room. It should be noted that the additional activated charcoal filter leads to reduced air performance in comparison with air extraction mode. The larger the surface area of the activated charcoal filter, the more comparable the ventilation appliance is to an air extraction solution in terms of its air output and noise level.



Air extraction mode

Air extraction mode

Cooking vapours, grease particles and odours are purified by the grease filter and fed into the atmosphere. Sufficient supply air ensures optimal air flow and therefore a good indoor climate. Under pressure allows fresh air to flow through open windows and adjacent rooms. In air extraction mode, the actual air performance is dependent on the ducting in addition to the fan power.

Good to know

Irrespective of the operating mode, all Gaggenau ventilation appliances initially guide kitchen vapours through a grease filter, which retains grease particles and protects the ventilation appliance and air pipe from grease deposits. All grease filters from Gaggenau are easy to remove and can be cleaned in the dishwasher.

	Air recirculation mode	Air extraction mode
Advantages	• Easy installation • No heat loss in winter • No loss of cooling in summer	• More effective air purification • More power
Disadvantages	• Slightly higher noise level • Activated charcoal filter needs to be changed once or twice each year • Activated charcoal filter reduces the air flow rate by approximately 20 to 30 percent	• Heat loss in winter • Loss of cooling in summer • More complex installation

6 Remote fan units

External remote fan units

Powerful fan module with highly efficient brushless direct current motor (BLDC) to combine the motorless units of the 200 and 400 series. Thanks to the variety of remote fan units, the modular system allows for installation in the cabinet, plinth, cellar, ceiling and in outdoor areas.

Fan units that are compatible with AL 400, VL 414 and VL 200:

Remote fan unit AR 401 142

Installation in outdoor areas makes it possible to reduce noise levels in the kitchen. Installation on an external wall. Air extraction mode.

Remote fan unit AR 401 142

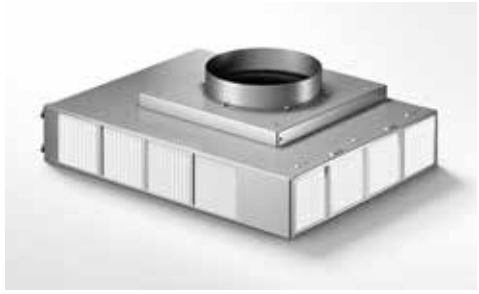
Remote fan unit AR 403 122

For compact and space-saving installation in a plinth of at least 10cm in height. Installation in the plinth. Air extraction mode.

Remote fan unit AR 403 122

Remote fan unit AR 413 122

For compact and space-saving installation in a plinth of at least 10cm in height. Installation in the plinth. Air recirculation mode with integrated filter.



Remote fan unit AR 413 122

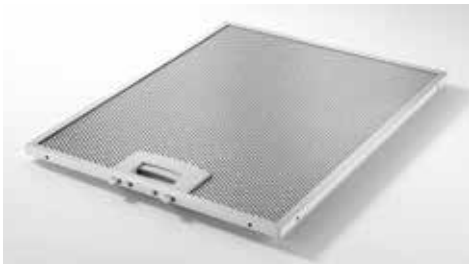
Remote fan unit AR 410 110

For compact and space-saving installations in a cupboard, possible with a cut-out in the furniture base or behind the cupboard. Suitable for a combination with Vario downdraft ventilation for 400 series and 200 series. Air recirculation mode.

Remote fan unit AR 410 110

Filter systems: Grease filter

In all of Gaggenau's ventilation appliances, the air with grease and odour particles first passes through a grease filter, which absorbs up to 95 percent of the grease from the air. This allows it to protect the inside of the ventilation appliance and the air extraction pipe from deposits. It can be easily cleaned in the dishwasher.



Metal grease filter

Metal grease filter

Grease separation is between 83 and 95 percent. The filter can be easily removed for cleaning.

Filter systems: Recirculation modules

AA 200 890

Air recirculation module
for AL 200 190

Activated charcoal filter

For ventilation appliances in air recirculation mode, the filter purifies the cooking vapours before the air is released back into the kitchen.

AA 200 812

Air recirculation module with charcoal filter
for AW 240

Activated charcoal filter with increased surface

In air recirculation mode, the activated charcoal filter absorbs the odour components immediately thanks to the increased surface and ensures an odour reduction of 75 percent.

The activated charcoal filter has an extended change interval of up to 30 times. It can be regenerated in the oven at 200°C.

The air output

The air output of the entire ventilation appliances must be specified to correspond to the air requirement. The following factors affect the air output:

- The performance characteristics of the chosen ventilation appliances.
- The duct system.
- The installation.

In addition, it is advisable to plan for sufficient power reserves to ensure that the ventilation appliances do not have to constantly work at the highest power level. This helps to reduce noise while simultaneously improving energy efficiency.

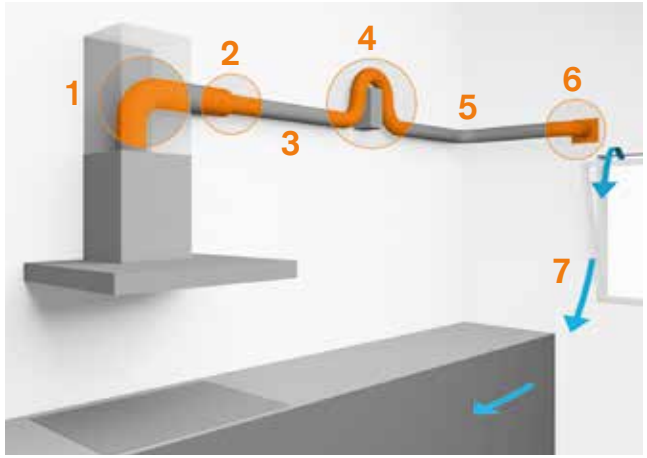
The performance characteristics of the ventilation appliances

The performance characteristics of a ventilation appliance are the result of optimal coordination of the following factors: the construction itself, the filter that is used and the fan. Gaggenau ventilation appliances are equipped with very powerful fans, or they can be combined with correspondingly powerful remote fan units for air extraction or air recirculation. These fans are also extremely resistant to pressure. They overcome possible pressure losses in a duct system and work very effectively at a low noise level.

The fan output is supported by features, such as the rim extraction or vapour collection area, which boost the effectiveness of the ventilation appliances.

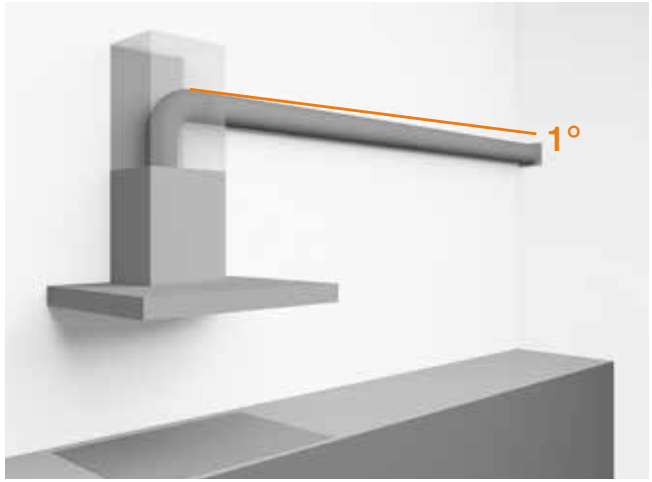
The duct system

Intelligently selecting and installing the duct system not only has a very positive effect on the output of the ventilation appliances; it also minimises the noise generated. It is therefore integral for the efficiency of the entire ventilation appliance. This applies especially to air extraction solutions, but also to air recirculation solutions with external remote fan units. A good guideline here is: the duct diameter should be as large and constant as possible, while the ducting should be as short and straight as possible. The wall outlet must correspond to the duct diameter.



The seven main factors responsible for loss of extraction rate and a simultaneous noise increase are:

1 Bend immediately after exhaust opening
2 Narrowing of the cross-section
3 Selected pipe diameter is too small
4 Use of pipe elbows
5 Piping routes are too long
6 Wall boxes
7 Insufficient air supply



Ideal piping meets the following criteria:

- Settling section of 30cm after the exhaust opening, only then attach the necessary elbows
- Additional elbow for pipe bends.
- Keep piping as short as possible.
- Aim for as large a pipe diameter as possible.
- Avoid cross-section narrowing. If cross-section narrowing is unavoidable, then taper as late as possible.
- Smooth interior pipe surface.
- Wall boxes with fins, no close-mesh grid, low counter-pressure.
- Guarantee air supply.

Further recommendations:

- Please note the slightly sloping installation of the air extraction duct with an incline of 1° to avoid condensation return flow.
- In the event of junctions in an exhaust shaft, place the pipes in the direction of flow as much as possible.
- When installing a single motor, maximum distance for ducting is 8m. Each bend is considered a 1m equivalent.

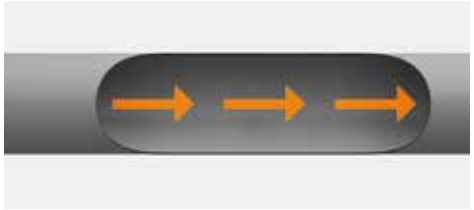
The duct type

In Gaggenau's accessories catalogue, customers can select the type of duct appropriate to their needs, whether aluflex duct, round duct or a flat duct system. Depending on the duct type, they can choose from the nominal sizes DN 125, DN 150 and DN 200. For maximum output with minimal noise, the diameter should always be as large as possible. Refer to accessories 400 series and 200 series on page 36–37.

The duct diameter

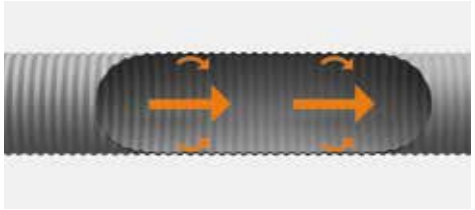
It is also important to consider the duct diameter. In principle, the nominal size of the duct should equal the size of the ventilation air outlet. Generally, the larger the diameter, the fewer the output losses and the lower the noise level. Even with a rangehood whose connecting pieces have a nominal size of DN 150, it is advantageous to use ducting with a nominal size of DN 200 for longer stretches in order to minimise losses in the long air circulation.

Ducts with diameters of less than 125mm (DN 125) are not recommended because they have a very negative effect on the ventilation output and significantly increase noise.



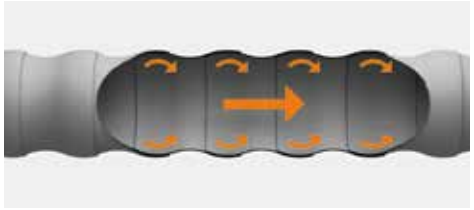
Smooth pipe: ideal

For straight ducting, the use of plastic or metal ducts with smooth, level inner surfaces is recommended. These enable a laminar flow of air during extraction, without air turbulence.



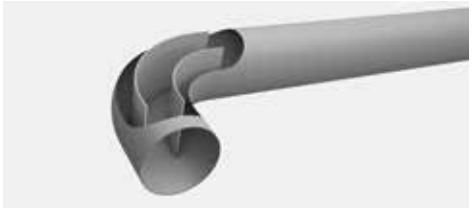
Aluflex pipe: good

For sections that are not straight and for bends, flexible aluminium ducts are preferred because they make it possible to avoid hard edges. The distinct design with special guidance fins in elbows and connectors allows for a very low height for large nominal diameters and therefore ensures highly efficient air flow.



Spiral hose: bad

We strongly advise against using other flat ducts due to the high loss of power in pipe elbows, channel corners and connectors. As a general rule, it is not advisable to use spiral or corrugated hoses. Comparatively speaking, they exhibit the poorest flow conditions and also tend to flutter, which leads to noise production.



Gaggenau flat duct system with guidance fins: highly efficient even when space is limited and bends are present

Where space limitations are a concern, the first choice is the Gaggenau flat duct system. This also applies in situations where there are many bends. In addition to the flat duct system, there are bends with guidance fins.

The installation

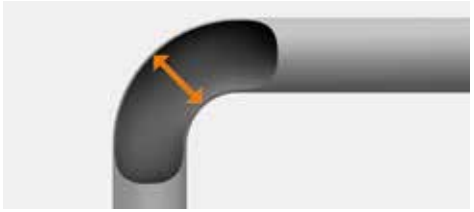
The choice of the appropriate duct type with the optimal nominal size and careful installation influence the efficiency of the ventilation appliance. The ducting should be kept as short as possible and have few bends and a large diameter.

Large duct diameters result in a lower flow velocity and far less turbulence. On the whole, there is an audible reduction in the noise generated by the ventilation appliance. Narrowing the cross-section, creates air turbulence, increases resistance and has a negative effect on the noise level and output of the ventilation appliance.

A straight stretch of ducting measuring approximately 30cm in length must be installed immediately following either the air outlet opening of the ventilation appliance or the remote fan unit, in order to allow the laminar flow of the extracted air. Bends should only be installed after this stretch.

Bends should always be laid out with the greatest possible radius because air turbulence forms at sharp turns/curves, which is also where air flow breakaway can happen. Bends that allow good air flow can be achieved with flexible aluminium ducts or our flat duct system.

Any narrowing of the cross-section should be avoided



Round pipe elbow: flow-enhancing

The section of the pipe downstream of the air outlet should be at least 30cm long

Angular pipe elbow: not flow-enhancing

The section of the pipe downstream of the air outlet should be at least 30cm long


GAGGENAU

Gaggenau Ventilation Service

The Gaggenau Ventilation Service is committed to providing the best information and content available for the planning of ventilation configurations, setting a benchmark worldwide.

From the Gaggenau factory in Lipsheim, France, the Ventilation Service creates tailored solutions that are designed in collaboration with your architect's kitchen plans. The aim is the successful planning and execution of even the most complex ventilation solutions, while keeping with the design language, brief and demands of each unique project.

Planning support, hints for installation, finished product drawings and design optimisation are offered to your architect and design team based on the submitted plans. This process addresses the barriers often encountered to effective ventilation (including vaulted ceilings, open living spaces, island benches and concrete slabs) in the design phase. Consequently, the optimisation of your cooking and ventilation appliances can be realised early, therefore avoiding disruptions to deadlines or causing haphazard compromises that may downgrade performance. Efficient, powerful and quiet extraction is the aim for every Gaggenau ventilation appliance.

This service is available to Gaggenau customers and their kitchen designer or architect on request. Please contact your Gaggenau representative with your requirements.

"We do things a certain way, not to impress or differentiate, but because that is what is required to achieve perfection."

Sven Baacke, Head of Design, Gaggenau

Ventilation Form Example

BSH Contact

Contact person

Country

Email Address

Phone

Date

Dealer | Kitchen supplier

Installation | Appliances

Type reference ventilation appliance

Type reference remote fan unit

Further appliances (cooktops)

Built-in situation ☐ flush-mounted ☐ surface-mounted

Height of plinth (for VL & AL)

Height suspended ceiling (for AC)

Installation | Kitchen

Date of installation

Kitchen	☐ closed	☐ open-plan
Size of kitchen	square footage_____m^2	ceiling height_____cm
Operation mode	☐ air extraction	☐ air recirculation
Length of duct	to outside wall_____m	to recirculation module_____m

Number of blends (90°)

Requested service

☐ Planning support

☐ Optimisation proposals of existing planning

☐ Hints for installation

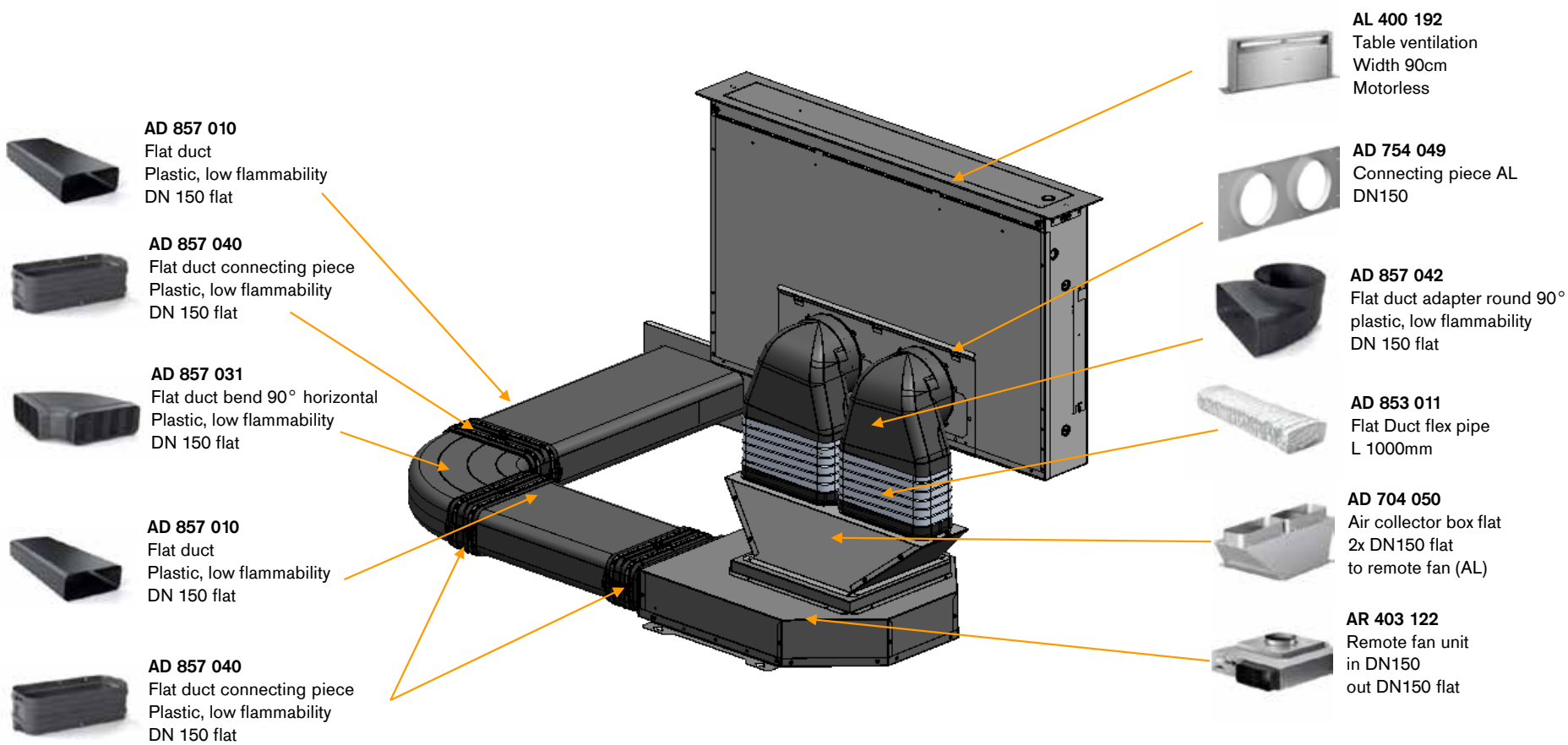
☐ Hints for service (e.g. filter change)

Further notes

Please send us also the kitchen planning

400 Series – Telescopic table ventilation

Installation option one – ducted



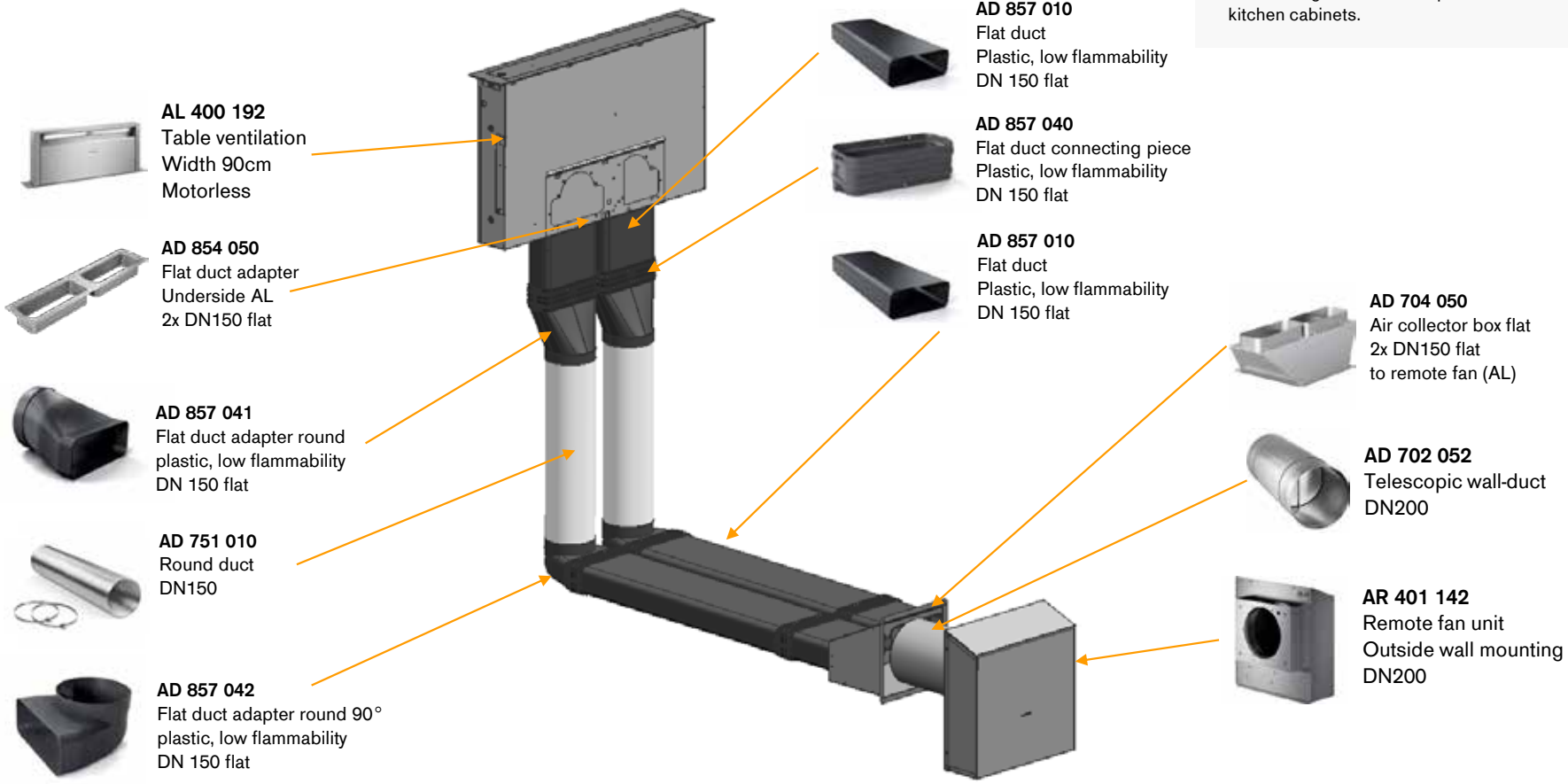
For ducting externally, additional accessories required. Contact your Gaggenau representative.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option two – ducted

Important information

- The AR 401 142 remote fan unit for installation on the outside wall is the ideal solution for compact air extraction.
- The ducting can be directed to outside via the cellar in this example.
- A minimum distance must be maintained for the air exhaust downwards on the AR 401 142 (100cm). Distance ground to central line of the pipe: 60cm.
- Local building regulations must be observed for the cellar breakout (especially with respect to the topic of fire safety).
- The ducting can also be implemented in the plinth area of the kitchen cabinets.



AL 400 192
Table ventilation
Width 90cm
Motorless

AD 854 050
Flat duct adapter
Underside AL
2x DN150 flat

AD 857 041
Flat duct adapter round
plastic, low flammability
DN 150 flat

AD 751 010
Round duct
DN150

AD 857 042
Flat duct adapter round 90°
plastic, low flammability
DN 150 flat

AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

AD 704 050
Air collector box flat
2x DN150 flat
to remote fan (AL)

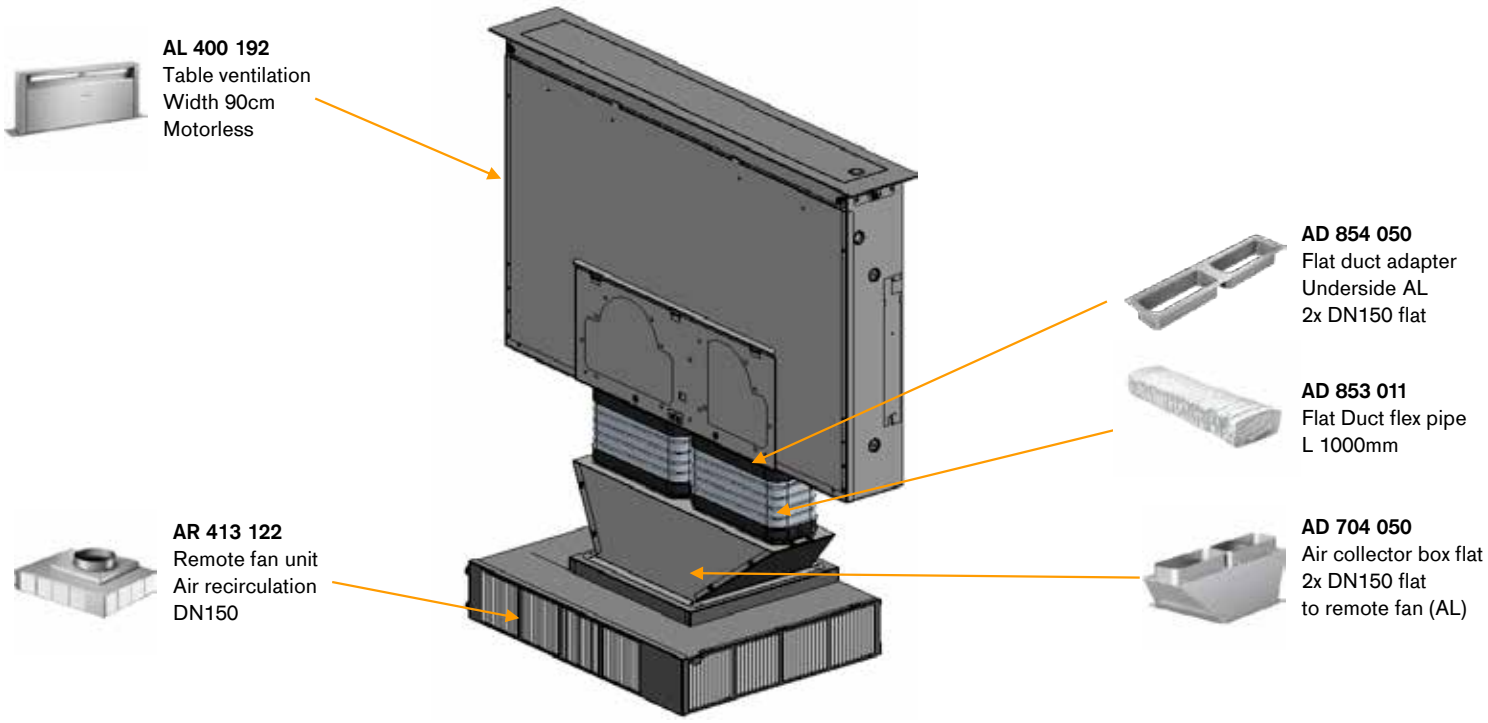
AD 702 052
Telescopic wall-duct
DN200

AR 401 142
Remote fan unit
Outside wall mounting
DN200

For ducting externally, additional accessories required. Contact your Gaggenau representative.
For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

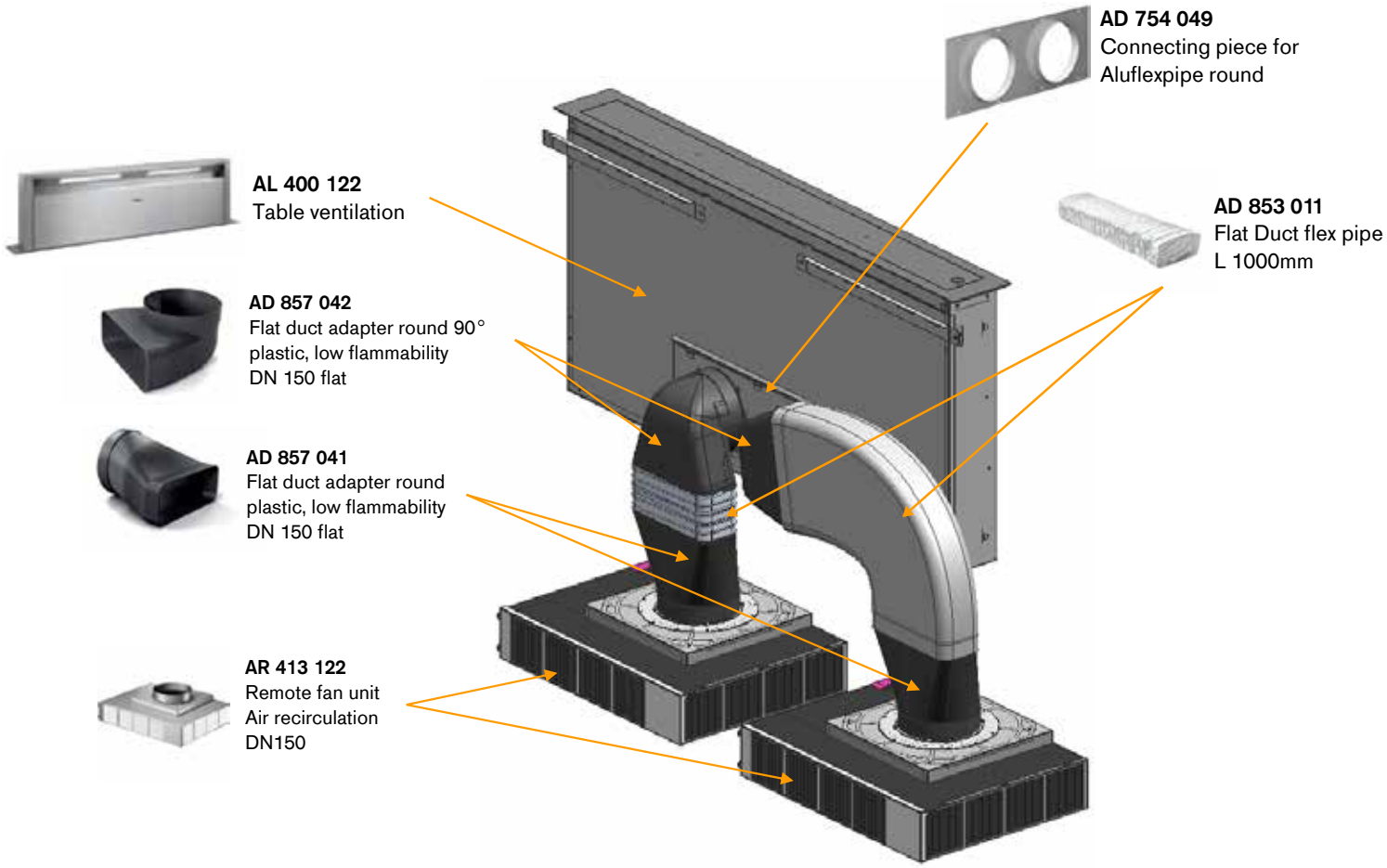
400 Series – Telescopic table ventilation

Installation option three – recirculated



For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option four – recirculated with two motors



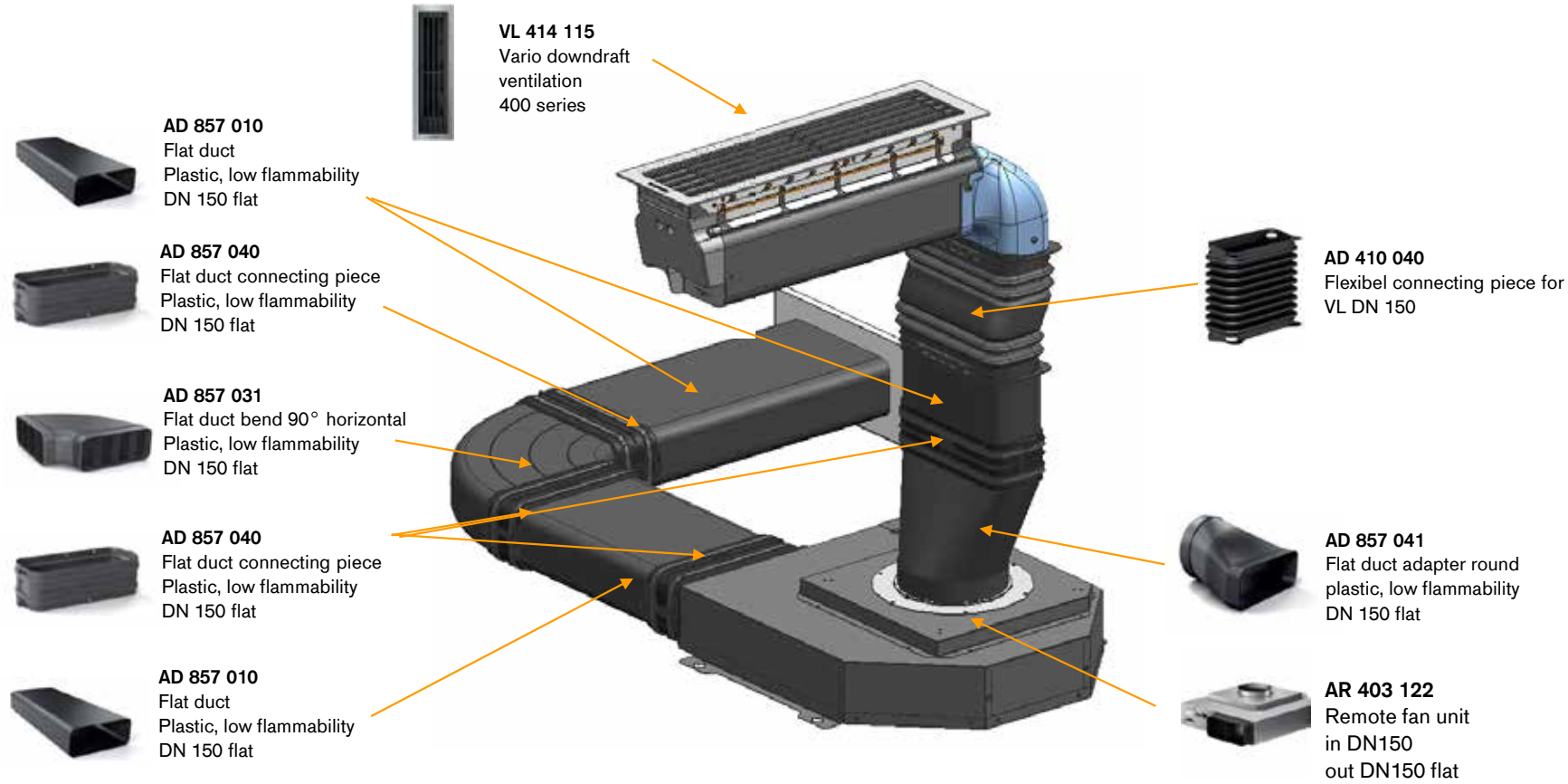
Important information

- The ducting can be connected to the front, rear or below with the AL 400 table ventilation. The respective connecting pieces are available for this purpose.
- Plastic ducts can be used for installation behind a gas appliance. The maximum permitted performance of the cooktops is 18 kW / 61.2 MJ.
- We recommend ducts with DN 150 for optimal air circulation.
- 2 flat ducts and 2 round ducts must be connected using a pipe connector.
- 2 bends (e.g. 90° horizontal with 90° vertical) require one flat duct pipe for connection, which can be shortened to the required length by cutting.
- It is equally important to ensure proper sealing of the ducting to avoid air leakages, for example with adhesive tape AD 990 090 (UV and heat resistant).
- If the AL 400 122 is installed in air recirculation mode and intensive cooking (e.g. Vario Teppan Yaki) is involved, we recommend to use a second remote fan unit AR 413 122 to support the vapour catch behaviour.
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki or Vario electric grill should be placed central in front of the ventilation appliance; in case of Vario electric grill air recirculation is not recommended.
- The air collector box can be screwed directly to the remote fan unit. The reducing piece supplied is not needed in this case.
- For optimum performance, the recirculated air requires sufficient space to escape (outflow surface area of at least 720cm² for each remote fan unit). For this, we recommend the air exhaust grill AA 010 410.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

400 Series – Downdraft ventilation

Installation option one – ducted



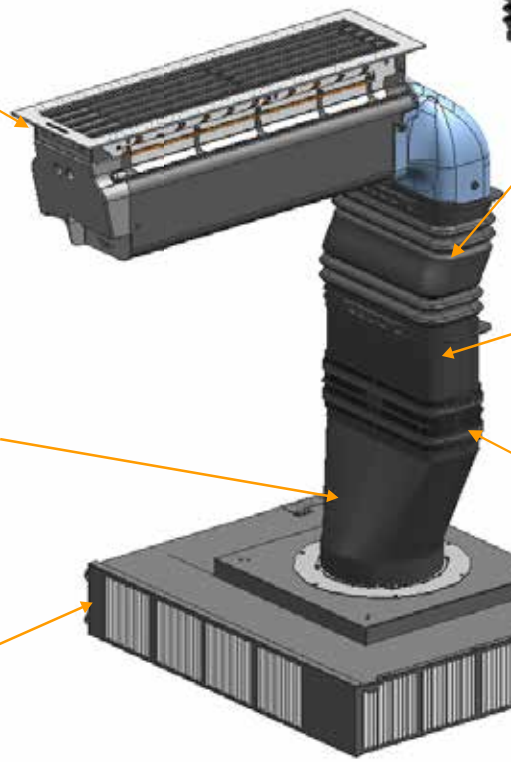
For ducting externally, additional accessories required. Contact your Gaggenau representative.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option two – recirculated

VL 414 115
Vario downdraft ventilation
400 series

AD 410 040
Flexibel connecting piece for VL DN 150



AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

AD 857 041
Flat duct adapter round
plastic, low flammability
DN 150 flat

AR 413 122
Remote fan unit
Air recirculation
DN150

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

Important information

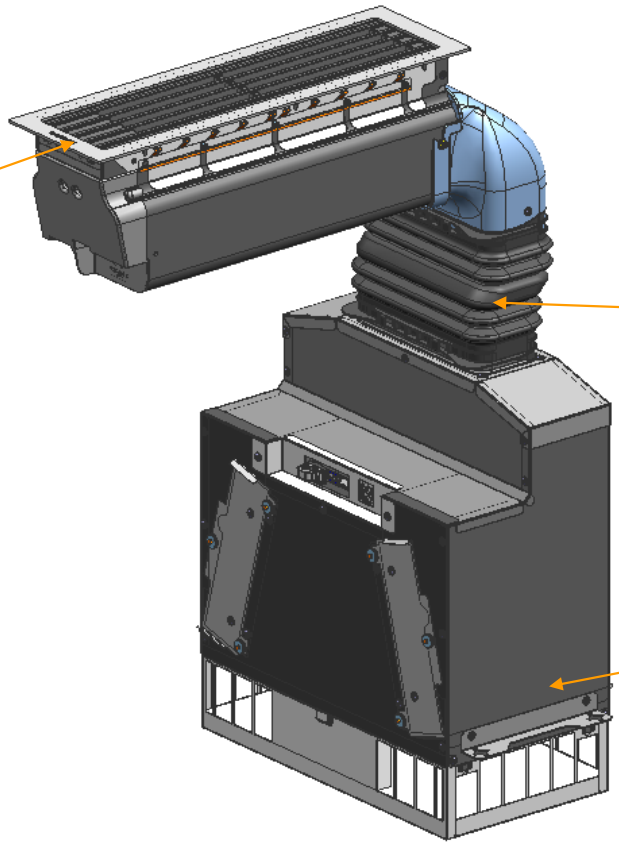
- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- With the Vario downdraft ventilation, the ducting can be connected from the rear.
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki or Vario electric grill should be placed centrally in the cooktop configuration. In case of Vario electric grill air recirculation is not recommended.
- The remote fan unit can be turned in all directions, depending on the desired direction for the exhaust air or filter removal.
- For optimum performance, the recirculated air requires sufficient space to escape (outflow surface area of at least 720cm²). For this, we recommend the air exhaust grill AA 010 410.
- The recommended minimum distance between filter openings and cupboard wall if there is no ventilation grill directly in front: 15cm.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

400 Series – Downdraft ventilation

Installation option three – recirculated (installation within drawers)

VL 414 115
Vario downdraft
ventilation
400 series

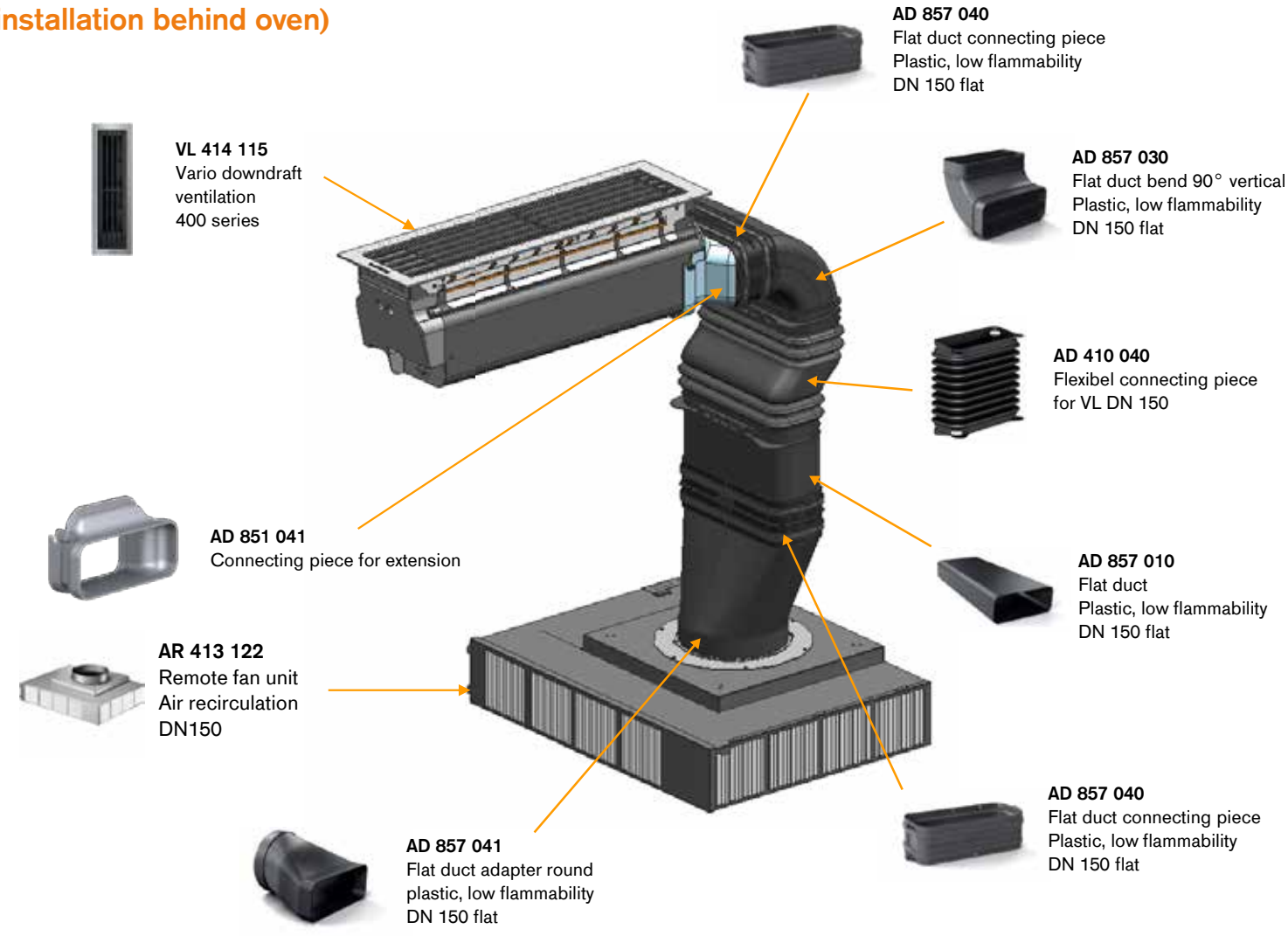


AD 410 040
Flexibel connecting piece
for VL 200 DN 150

AR 410 110
Remote fan unit
Air recirculation
DN150 flat

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option four – recirculated (installation behind oven)



AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

VL 414 115
Vario downdraft ventilation
400 series

AD 857 030
Flat duct bend 90° vertical
Plastic, low flammability
DN 150 flat

AD 410 040
Flexibel connecting piece
for VL DN 150

AD 851 041
Connecting piece for extension

AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

AR 413 122
Remote fan unit
Air recirculation
DN150

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

AD 857 041
Flat duct adapter round
plastic, low flammability
DN 150 flat

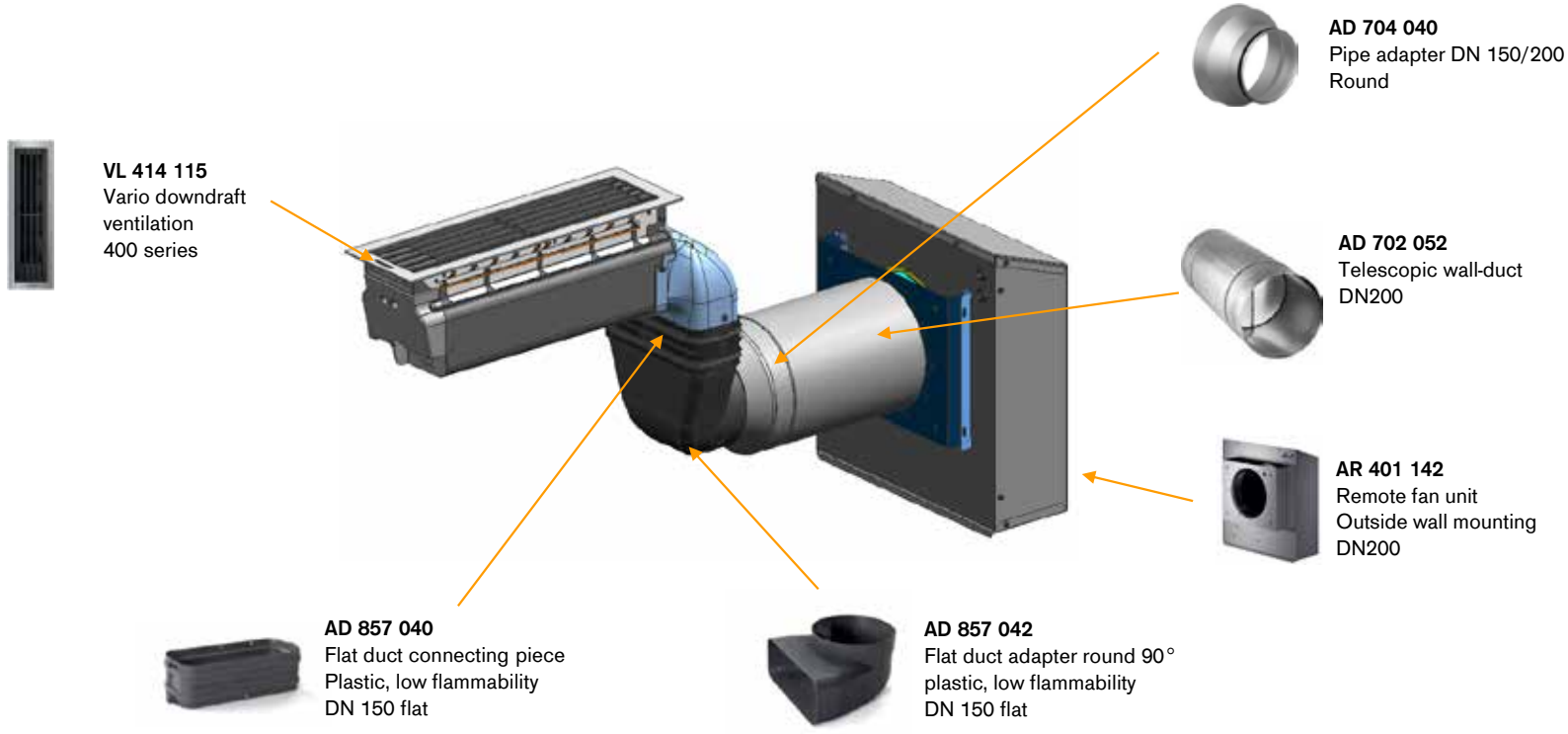
Important information

- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- For configuration recirculated option behind drawers, depending on the depth of the island a second flat duct AD 857 010 might be needed.
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki or Vario electric grill should be placed centrally in the cooktop configuration. In case of Vario electric grill air recirculation is not recommended.
- The charcoal filter exchange is possible from both sides for AR410110 remote fan unit.
- Allow accessibility to the charcoal filters in the lower cabinet for replacing the filter.
- It is possible to position the remote fan unit direct on the floor or fix it with the retaining brackets with a cut-out in the furniture base.
- For optimum performance, the recirculated air requires sufficient space to escape (outflow surface area of at least 720cm²). For this, we recommend the air exhaust grill AA 010 410.
- The recommended minimum distance between filter openings and cupboard wall if there is no ventilation grill directly in front: 15cm.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

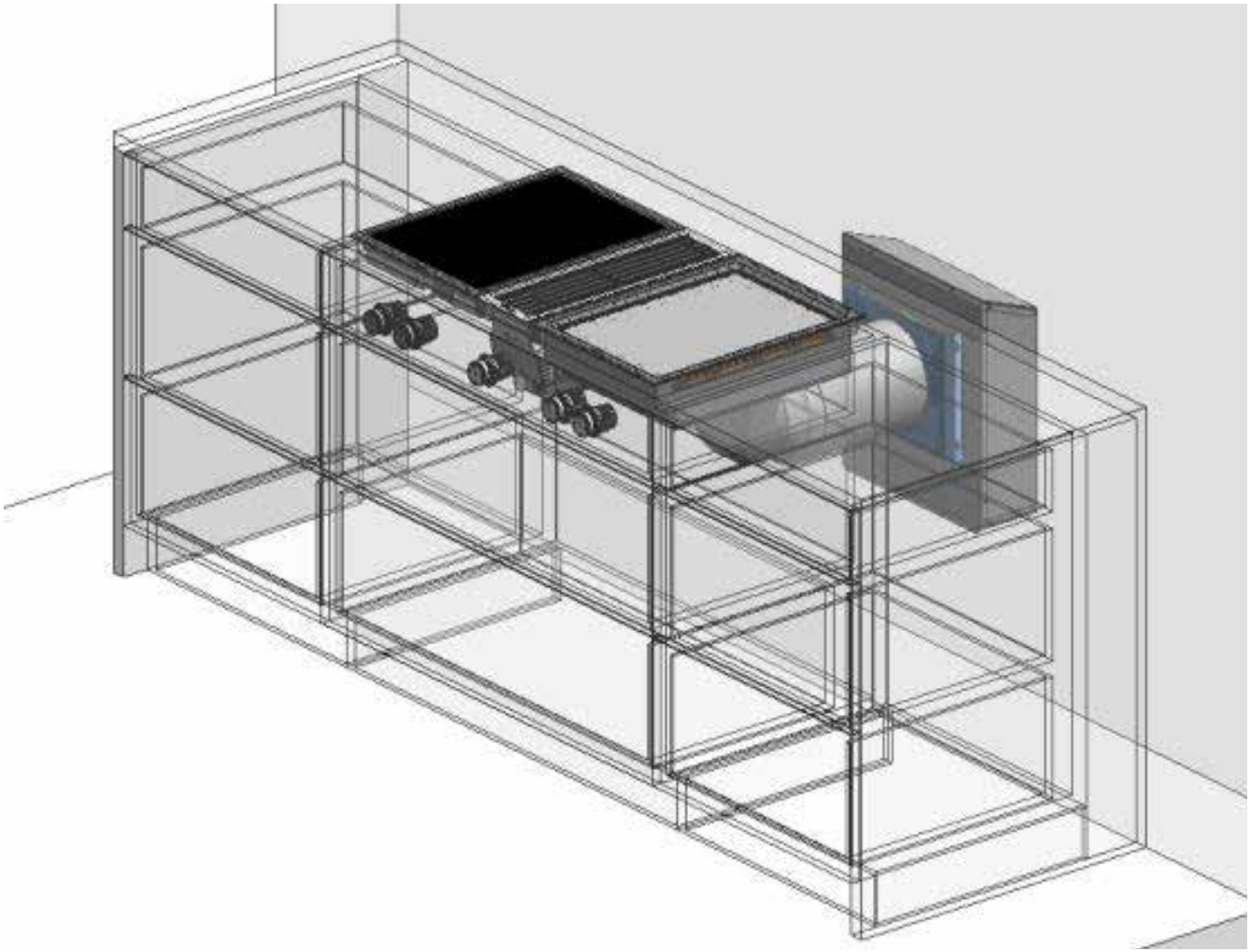
400 Series – Downdraft ventilation

Installation option five – ducted



For ducting externally, additional accessories required. Contact your Gaggenau representative.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.



For each VL, one remote fan unit is recommended.

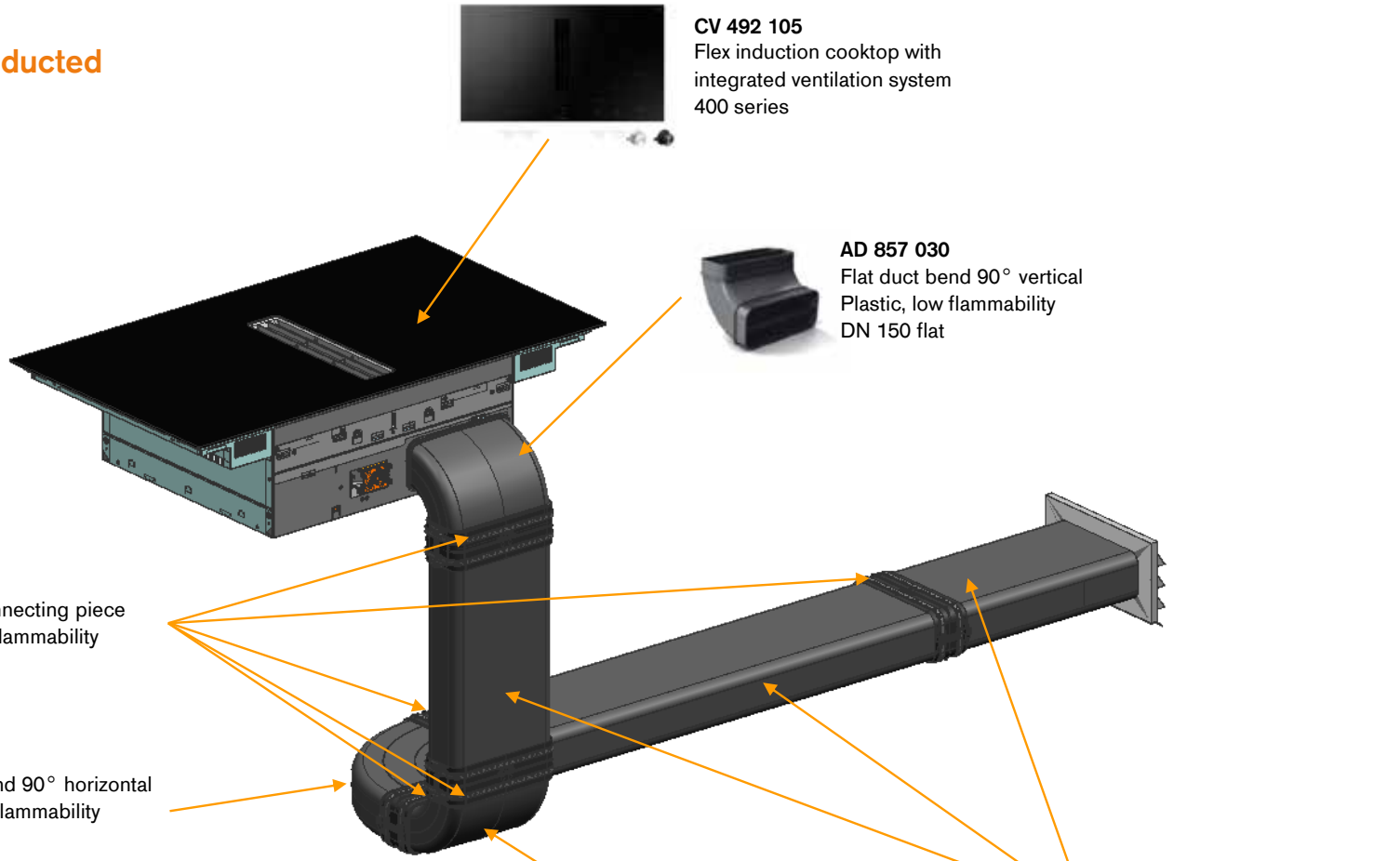
Important information

- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki or Vario electric grill should be placed centrally in the cooktop configuration. In case of Vario electric grill air recirculation is not recommended.
- A minimum distance must be maintained for the air exhaust downwards on the AR 401 142 (100cm). Distance ground to central line of the pipe: 60cm.

Recommended configurations of the 400 series integrated ventilation system

400 Series – Downdraft ventilation

Installation option one – ducted



CV 492 105
Flex induction cooktop with
integrated ventilation system
400 series

AD 857 030
Flat duct bend 90° vertical
Plastic, low flammability
DN 150 flat

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

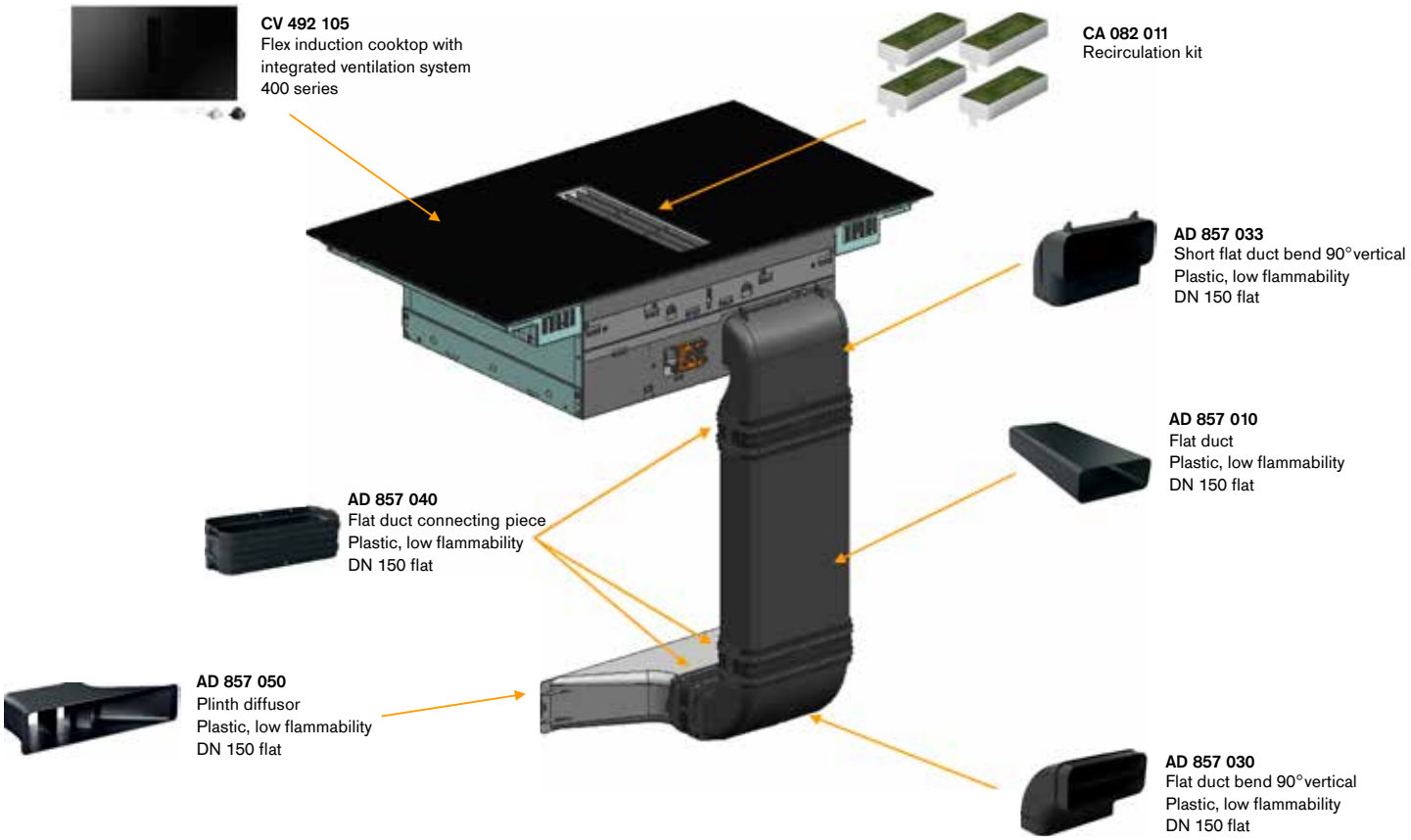
AD 857 031
Flat duct bend 90° horizontal
Plastic, low flammability
DN 150 flat

AD 857 030
Flat duct bend 90° vertical
Plastic, low flammability
DN 150 flat

AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

For ducting externally, additional accessories required. Contact your Gaggenau representative.
For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option two – recirculated

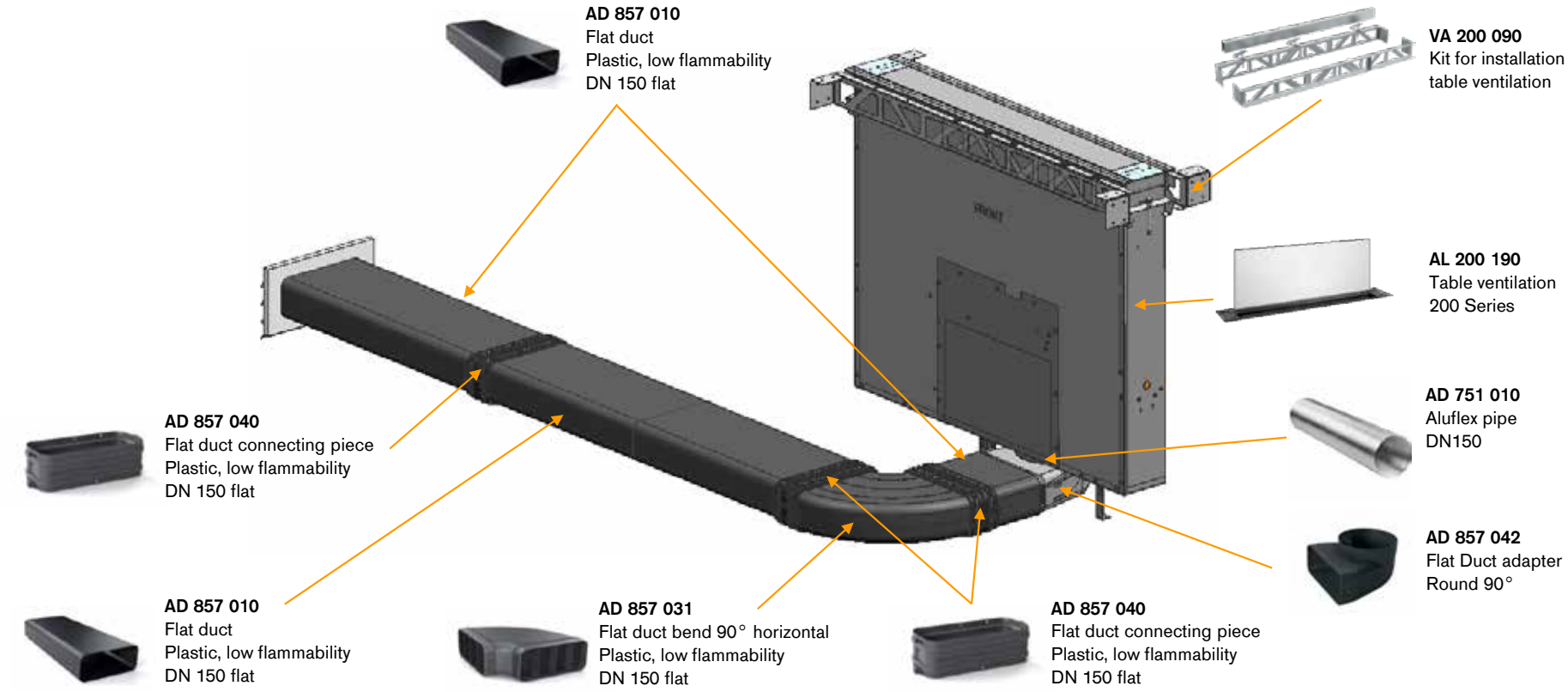


Important information

- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Minimum recommended worktop depth of 650mm for ducted and ducted recirculated installations.
- Minimum recommended worktop depth of 600mm for unducted recirculated installations using CA 082 011 recirculated set possible.
- The unducted recirculation set CA 082 011 requires a vertical aperture of minimum 25 mm behind the backpanel of the furniture.

200 Series – Downdraft table ventilation

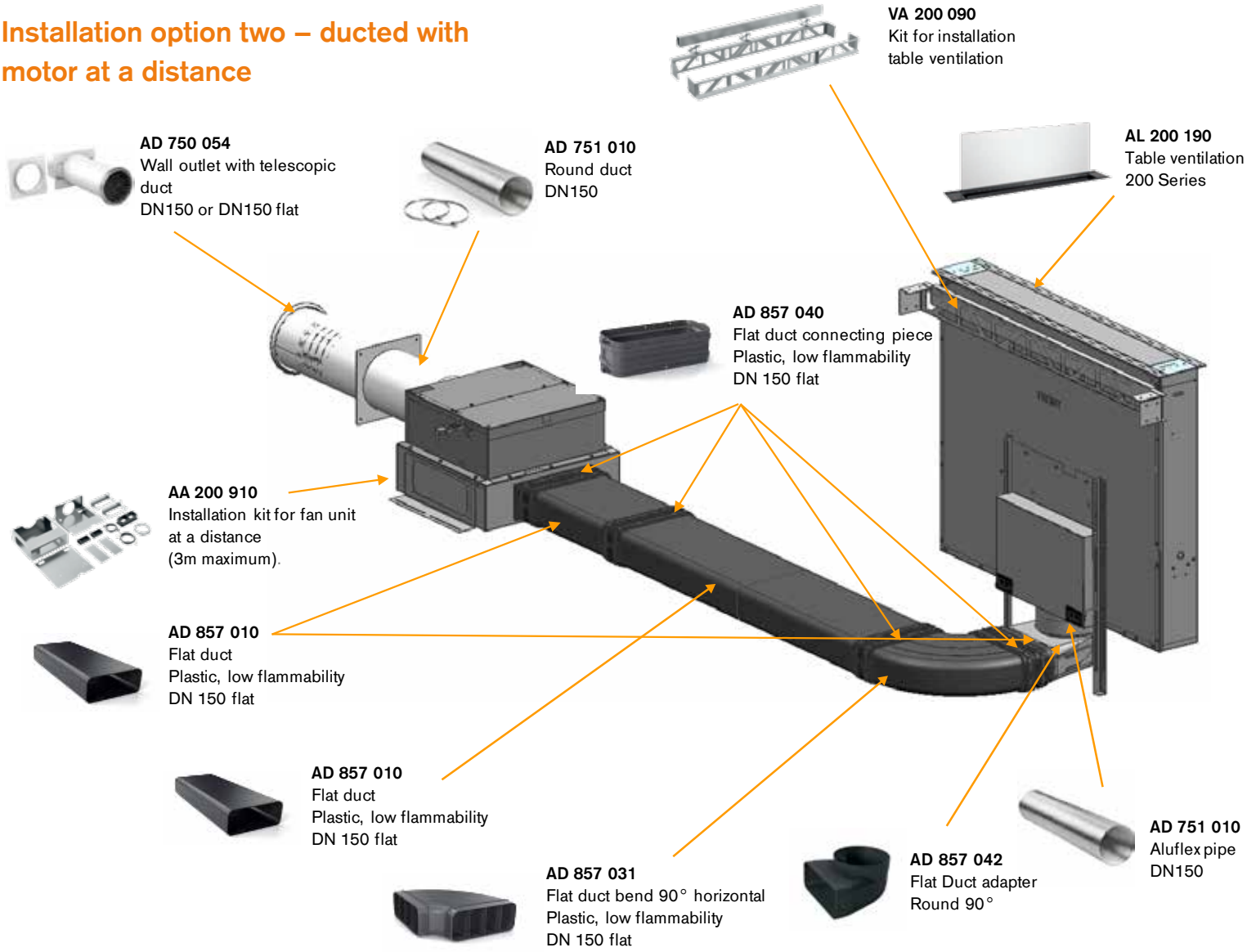
Installation option one – ducted



For ducting externally, additional accessories required. Contact your Gaggenau representative.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option two – ducted with motor at a distance



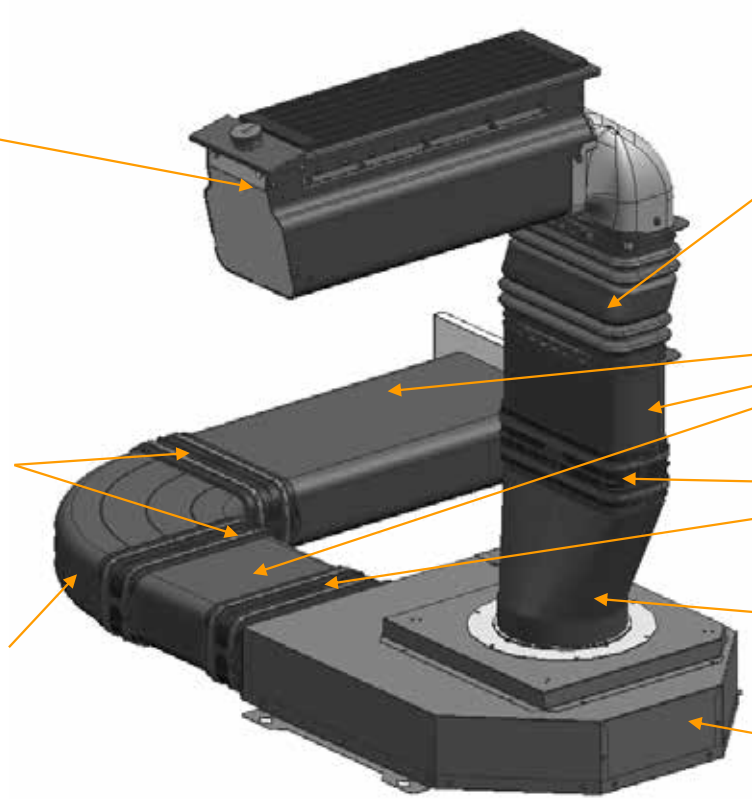
Important information

- AL 200 is compatible for installation in a single cut out with frameless induction cooktop models CX 492 101 and CI 292 102
- For installation in a single worktop cut-out the installation accessory VA 200 090 must be placed between the appliances
- For surface mounted installation in separate cut-outs, the accessory AA 200 900 is required
- No upper cabinets should be installed above the table ventilation AL 200 to maintain optimum performance.
- The following distance should be observed: 50cm left and right of the table ventilation to the wall or neighbouring tall cabinets; and 5cm from the table ventilation frame to the wall.
- The pressure drop resistant blower allows for ductings up to 8m with 3 x 90° bows while keeping sufficient performance.
- To install the fan unit at a distance, an installation kit AA 200 910 is required (with spare covers for closing air outlets). Maximum distance of motor from AL 200 is 300cm.
- Whatever installation situation, the fan unit should always be accessible.
- For optimum performance in air recirculation we recommend an outflow surface area of at least 440cm².
- For air recirculation an air recirculation module is required.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

200 Series – Downdraft ventilation

Installation option one – ducted



VL 200 120
Vario downdraft
ventilation
200 series

AD 410 040
Flexibel connecting piece
for VL 200 DN 150

AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

AD 857 031
Flat duct bend 90° horizontal
Plastic, low flammability
DN 150 flat

AD 857 041
Flat duct adapter round
plastic, low flammability
DN 150 flat

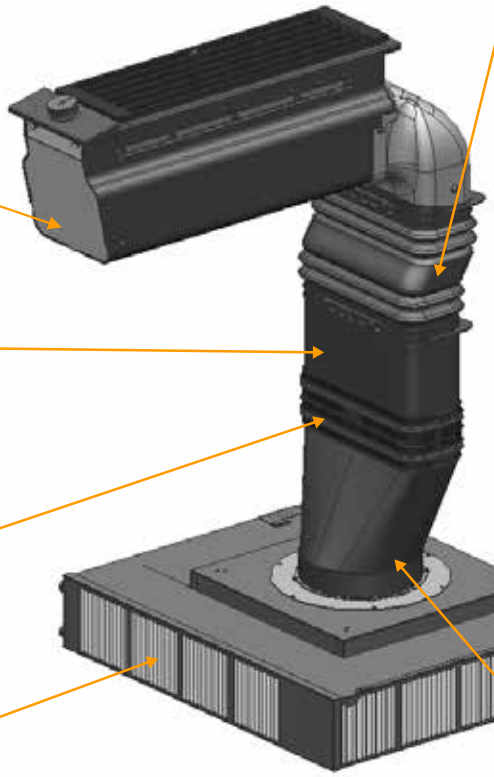
AR 403 122
Remote fan unit
in DN150
out DN150 flat

For ducting externally, additional accessories required. Contact your Gaggenau representative.
For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option two – recirculated

AD 410 040
Flexibel connecting piece
for VL 200 DN 150

VL 200 120
Vario downdraft
ventilation
200 series



AD 857 010
Flat duct
Plastic, low flammability
DN 150 flat

AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

AR 413 122
Remote fan unit
Air recirculation
DN150

AD 857 041
Flat duct adapter round
plastic, low flammability
DN 150 flat

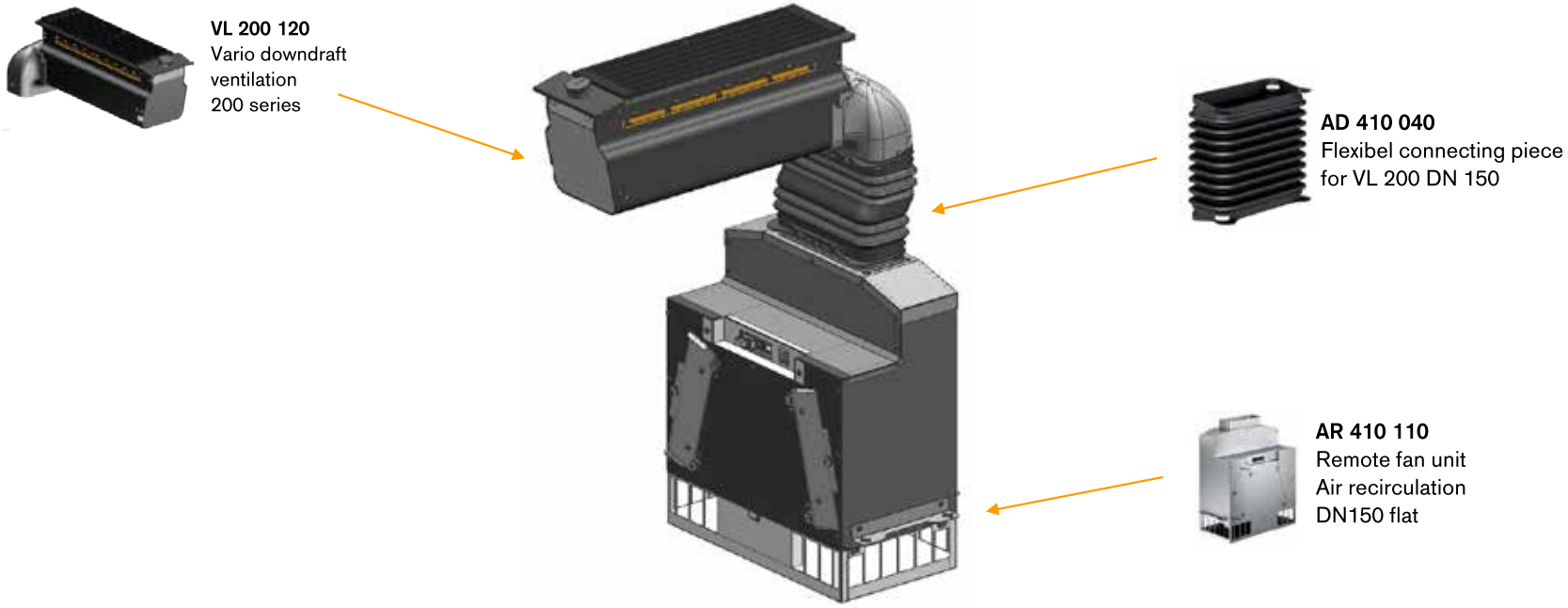
Important information

- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- With the Vario downdraft ventilation, the ducting can be connected from the rear.
- Maximum distance between the Vario downdraft ventilation and the remote fan unit: Cable length in between 1.7m
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki, Vario electric grill should be placed central; in case of Vario electric grill air recirculation is not recommended.
- The remote fan unit can be turned in all directions, depending on the desired direction for the exhaust air or filter removal.
- Allow accessibility to the charcoal filters in the lower cabinet for their replacement.
- The recommended minimum distance between filter openings and cupboard wall if there is no ventilation grill directly in front: 15cm.
- For optimum performance, the recirculated air requires sufficient space to escape (outflow surface area of at least 720cm²). For this, we recommend the air exhaust grill AA 010 410.
- For a plinth height less than 130mm, please refer to installation instructions.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

200 Series – Downdraft ventilation

Installation option three – recirculated (installation within drawers)



VL 200 120
Vario downdraft ventilation 200 series

AD 410 040
Flexibel connecting piece for VL 200 DN 150

AR 410 110
Remote fan unit
Air recirculation
DN150 flat

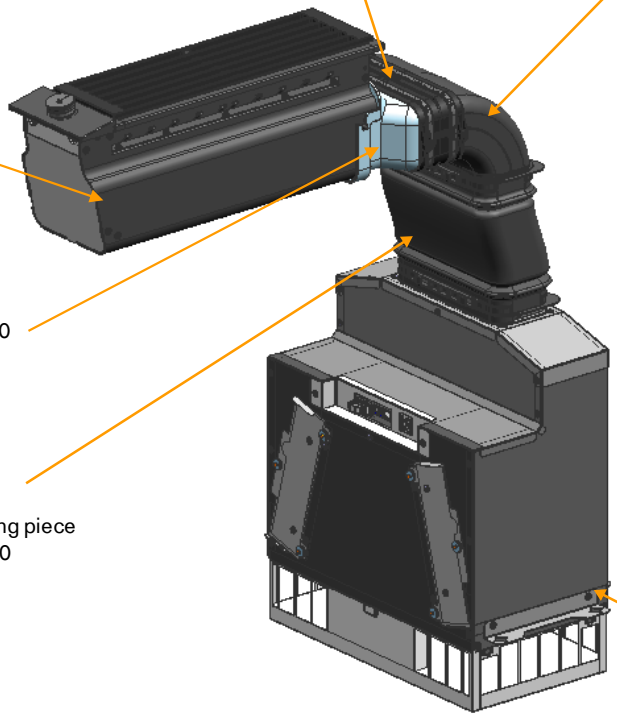
For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

Installation option four – recirculated (installation behind drawers)

VL 200 120
Vario downdraft ventilation 200 series

AD 851 041
Connecting piece VL 200 for extension

AD 410 040
Flexibel connecting piece for VL 200 DN 150



AD 857 040
Flat duct connecting piece
Plastic, low flammability
DN 150 flat

AD 857 030
Flat duct bend 90° vertical
Plastic, low flammability
DN 150 flat

AR 410 110
Remote fan unit
Air recirculation
DN150 flat

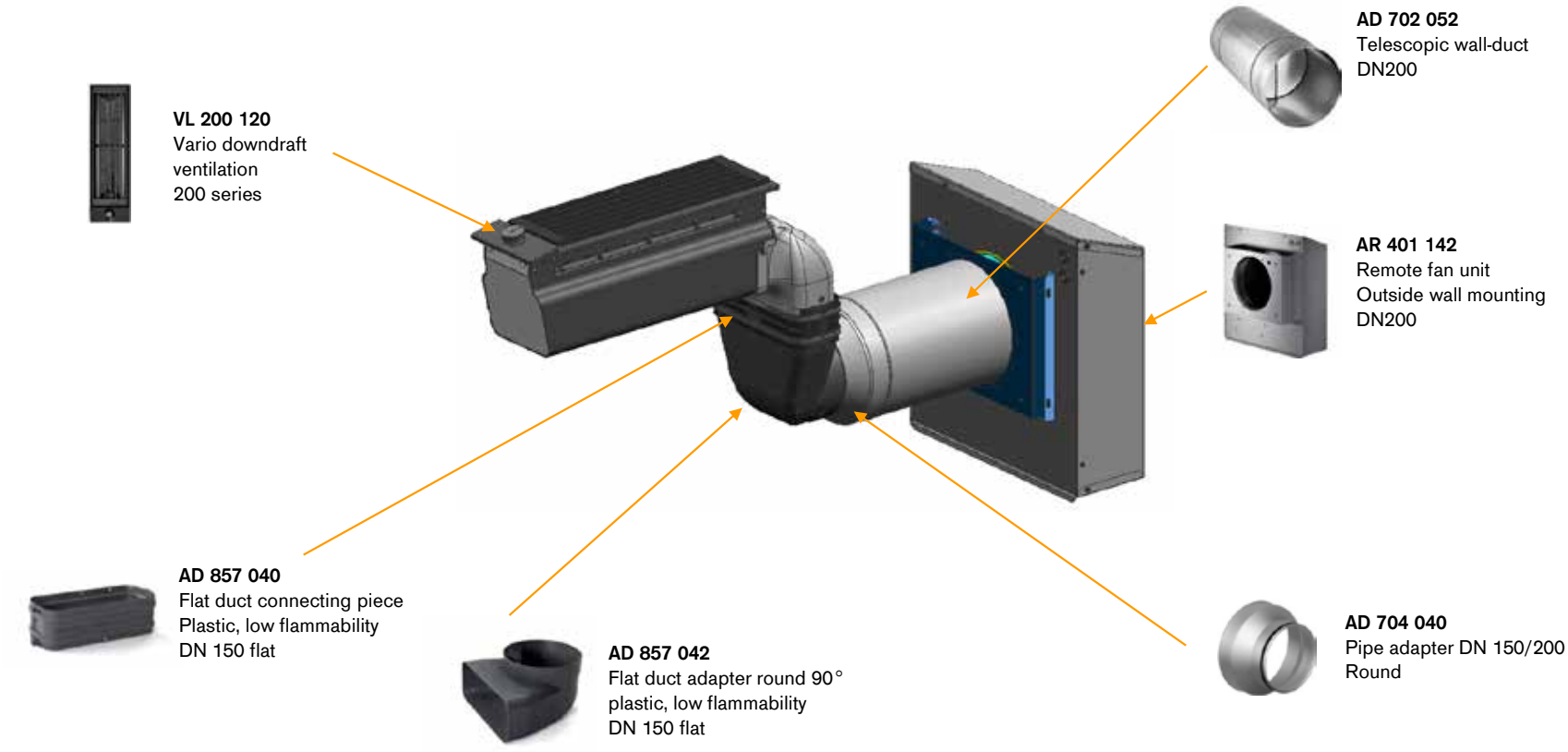
Important information

- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- With the Vario downdraft ventilation, the ducting can be connected from the rear.
- Maximum distance between the Vario downdraft ventilation and the remote fan unit: Cable length in between 1.7m
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki, Vario electric grill should be placed central; in case of Vario electric grill air recirculation is not recommended.
- The remote fan unit can be turned in all directions, depending on the desired direction for the exhaust air or filter removal.
- Allow accessibility to the charcoal filters in the lower cabinet for their replacement.
- The recommended minimum distance between filter openings and cupboard wall if there is no ventilation grill directly in front: 15 cm.
- For optimum performance, the recirculated air requires sufficient space to escape (outflow surface area of at least 720cm²). For this, we recommend the air exhaust grill AA 010 410.
- For a plinth height less than 130mm, please refer to installation instructions.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.

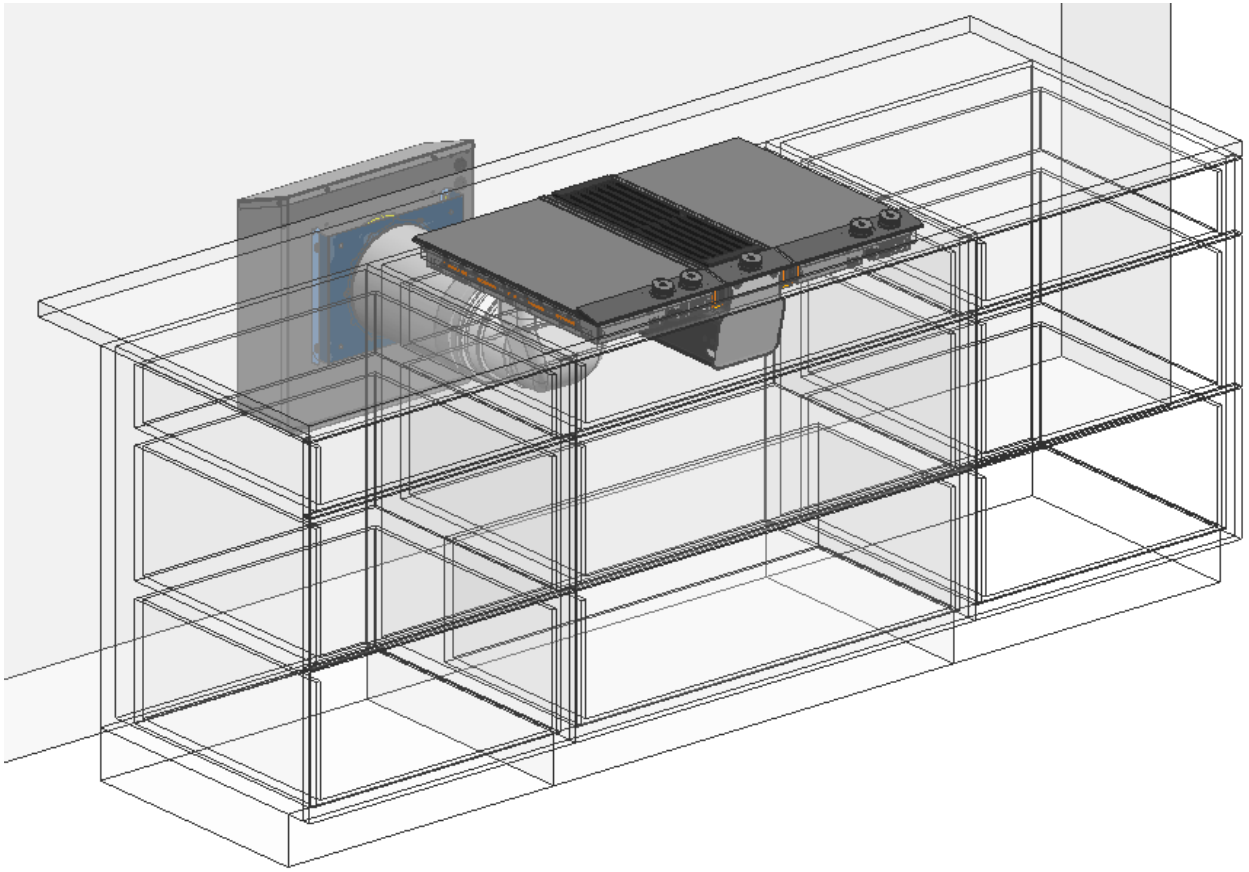
200 Series – Downdraft ventilation

Installation option five – ducted



For ducting externally, additional accessories required. Contact your Gaggenau representative.

For appliance and installation measurements, refer to Gaggenau Models and Dimensions and the installation guide.



Important information

- For depth measurements, take account of the depth of the furniture cavity and worktop overhangs of the kitchen furniture.
- With the Vario downdraft ventilation, the ducting can be connected from the rear.
- Maximum distance between the Vario downdraft ventilation and the remote fan unit: Cable length in between 1.7m
- For optimum air circulation, we recommend ducts with DN 150.
- 2 flat or 2 round ducts must be connected with a pipe connector.
- To connect 2 duct bends together (e.g. a 90° horizontal duct bend and a 90° vertical duct bend), a piece of flat duct is required, which can be shortened to the required length by cutting it to size.
- It is also important that ducting is well sealed in order to prevent air leaks, e.g. by using the adhesive tape AD 990 090 (UV and heat resistant).
- Vario cooktops with intensive vapour formation like Vario Teppan Yaki, Vario electric grill should be placed central.
- A minimum distance must be maintained for the air exhaust downwards on the AR 401 142 (100cm). Distance ground to central line of the pipe: 60cm.

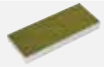
Remote fan unit accessories 400 and 200 series

	**AA 010 410**	Air exhaust grill stainless steel colour for plinth installation, 90cm, optional to suit model AR 413 122
	**AD 700 051**	Wall outlet, stainless steel, DN 200 round duct, for use with telescopic wall-duct AD 702 052; for connection of flat duct use AD 852 042
	**AD 702 052**	Telescopic wall duct connection piece DN 200 round, for use with wall outlet AD 700 051 or remote fan unit AR 401
	**AD 750 054**	Wall outlet connection for optimal temperature insulation, weatherproof stainless steel louvres, magnetic opening and closing, for round duct connection DN 150 to suit AR 403; for connection of flat duct DN 150 use AD 857 042, DN 150
	**AD 704 040**	Pipe adapter DN 200/150 round, metal zinc plated, reduce DN 200 connection to DN 150 connection. If used with AD 702 052 DN 200 and AR 403 / AR 413 DN 150 remote fan unit
	**AD 704 050**	Air collector box, flat duct DN 150 to connect AL 400
	**AD 751 010**	Aluflex pipe round, DN 150
	**AD 853 011**	Flat duct system flex pipe, plastic, DN 150 flat, 1000mm long (for AL 400)
	**AD 857 010**	Flat duct, DN 150, length 1000mm
	**AD 857 041**	Flat duct adaptor round, DN 150
	**AD 857 042**	Flat duct adaptor round 90°, DN 150
	**AD 857 031**	Flat duct bend 90° horizontal, DN 150
	**AD 857 030**	Flat duct bend 90° vertical, DN 150

Remote fan unit accessories 400 and 200 series

	**AD 857 033**	Short flat duct bend 90° vertical, DN 150
	**AD 857 050**	Plinth diffusor for flat duct DN 150 recirculation configurations
	**AD 857 040**	Flat duct pipe connector, DN 150, for combination 2 flat ducts
	**AD 990 090**	Adhesive tape for sealing ducts

Wall rangehood ventilation accessories 200 series

			AW 240 191
	AD 200 322	Stainless steel chimney extension 100cm, suits AW 240	•
	**AA 200 812**	Recirculation module with charcoal filter, suits AW 240	•
	**AA 210 110**	Active charcoal filter to suit AA 200 812 recirculation module	•

Slide out and integrated rangehood ventilation accessories 200 series

			AF 210 192	AF 210 162	AC 200 191	AC 200 161
	**AA 211 812**	Patented air recirculation module (including 1 active charcoal filter)	•	•	•	•
	**AA 210 110**	Active charcoal filter to suit AA 200 812 recirculation module	•	•	•	•
	**AA 210 492**	Lowering frame for AF 210, 90cm	•			
	**AA 210 460**	Lowering frame for AF 210, 60cm		•		
	**AA 210 491**	Assembly kit for 90cm upper cabinet	•			

Telescopic table and downdraft ventilation accessories

			AL 400 192/122	AL 200 190	VL 414	VL 200
	**VA 200 090**	Installation accessory for AL 200 190 & cooktop in a single cutout (flush installation)		•		
	**AA 200 900**	Installation kit surface mounting for AL 200		•		
	**AA 200 910**	Installation kit for remote motor installation for AL 200		•		
	**AA 200 890**	Air recirculation module for AL 200 190		•		
	**AA 200 892**	Regenerable air recirculation module for AL 200 190		•		
	**AA 409 401**	Furniture support for table ventilation AL 400, 90cm	•			
	**AA 409 431**	Furniture support for table ventilation AL 400, 120cm	•			
	**AD 754 049**	Necessary connecting piece for 2 x DN 150 round duct, can be fitted on front or back side of AL 400	•			
	**AD 854 050**	Necessary connecting piece for 2 x DN 150 flat duct, can be fitted on the bottom side of AL 400 (comes in 2 pieces)	•			
	**AD 851 041**	Connection piece for extra deep worktop for VL 200			•	•
	**AD 410 040**	Flexible connection piece for VL 200 and AD 724 042			•	•
	**AA 414 010**	Air baffle for VL 414 installation next to gas appliances			•	
	**LS 041 001**	Air baffle for VL 200 installation next to gas appliances				•

General planning notes

Important factors when planning a ventilation appliance include personal taste, specific architectural conditions and safety considerations.

The design

In visual terms, there are two categories of ventilation: visible and invisible. The preferred version depends entirely on personal taste.

For example slide out rangehoods and integrated rangehoods are installed directly into the cabinet. Or the downdraft units VL 414 and VL 200 are integrated directly into the worktop in between or next to your cooking appliances.

The AL 400 and AL 200 telescopic table ventilation units remain in the background, or disappears completely into the worktop when not in use, leaving the space above the cooktop free.

Architectural conditions

Architectural conditions, such as room layout, wall shape or building materials, often impose limits on the choice of ventilation appliance and the operation mode. In order to avoid such limitations, it is worth making a decision early on about the type and operation mode of the ventilation appliance.

- Low-energy or passive house: only a recirculation variant is possible in this case, because otherwise the energy balance of the house would be negatively affected.
- Long air extraction route: our planning tool helps you to determine whether the performance losses in the planned duct system would be too great for the volume of fresh air that is needed and, if so, what changes in the kitchen planning process solve the problem, or whether a recirculation system would be more suitable.
- Open fireplace: if there is a working open fireplace in the kitchen or an adjacent room, any planned ventilation appliances must ensure a sufficient supply of fresh air.
- A sloping ceiling or a cooktop directly in front of a window: installation of table or downdraft ventilation is recommended in this situation.

Further planning instructions and planning examples can be found in The Models and Dimensions and the installation guide.

Homes built on a concrete slab

Island installation; if the appliances are chosen prior to build the builder can leave provisions in the slab to allow the ducting to be run later and a ducted installation configuration can be used. If the concrete slab has been laid, a recirculation motor and installation configuration needs to be used.

Aspects relating to safety for air extraction mode

Safety and fire protection must have top priority in all planning activities and regulations currently in force must always be complied with.

An adequate supply of fresh air must be ensured, especially in rooms where a fireplace is being operated with gas, oil or solid fuel. This is because the rangehood could divert the oxygen that the fireplace needs for combustion and increase the spread of exhaust gases throughout the room.

Extracted air must not be channelled into any currently working flue or chimney. The air must also not be channelled into any shaft that serves to ventilate rooms with fireplaces.

The minimum distance between the worktop and the bottom edge of the ventilation appliance is listed in the planning instructions of The Models and Dimensions publication and on our website at www.gaggenau.com.au. This minimum distance must always be observed. If the distance exceeds this minimum, the air output is reduced. This should also be kept in mind during planning.

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