



# ASSEMBLING INSTRUCTIONS

## KITCHEN I-SERIES

MONT-004

Montagesupport/**Assembly support**

+46 512 30 10 71

[montagesupport@kvanum.com](mailto:montagesupport@kvanum.com)

*We reserve the right for possible printing errors and product changes.*

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# Introduction

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## To the installer

Make sure that you have the necessary qualifications to assemble and install kitchen units from Kvänum.

Complaints cannot be dealt with if the installation work has not been carried out in a professional way. Read through all the assembly and installation instructions before beginning work. If you are not sure what to do, contact the salesperson or the factory.



## Note that these instructions are for the i series with inset doors

Kvänum's other model series are; f-series with rebated doors and h-series with full overlay doors.

## Before you begin

Make sure that all surfaces in the room are in perfect condition so that installation can be carried out without interruption.

Cover floors with Masonite boards or similar so that they won't be damaged during the installation work.

Walls must be straight, prepared for papering or painted. The ceiling should be completely finished. Flooring should also have been laid where the units are to be fitted.

Remember that sandpapering and building dust can be damaging, to both the exterior finishes of the units and the appliances.

All piping and ducts for electricity, gas, water, drains and ventilation must be ready for use as far as possible. Note that these installations must be carried out by an authorized person.

## i-series (recessed door).

- Cabinet with recessed door
- Outside, visible whole cabinet front edge and door hinge pins
- Door opening angle 185°
- Hinges with damping is not available in i-series. Soft closer available as an option and fitted internally visible inside the cabinet.
- Drawer runners is standard with closing damping



The i series has inset drawer fronts and doors

# Introduction

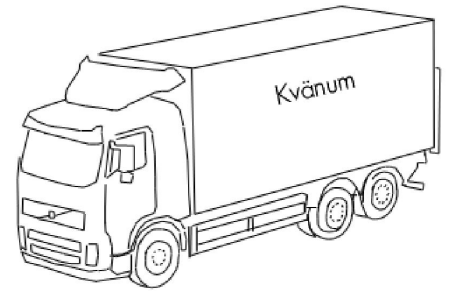
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## Receive cargo delivery

The recipient and the driver go together through the delivery.

The person who received the goods from the freight forwarder is obliged to check that the package on all packages is undamaged before the consignment-note is signed. With the signing, responsibility for the goods is transferred to the delivery addressee.

- Check delivery pallet, package etc. after visible damage
- The number of pallets and packages is checked to match the consignment-note.
- The recipient signs the transmission document
- Any deviations or damages should always be noted on shipping documents
- Hidden damage is reported within 7 days to the seller



In case of visible freight damage, this must be reported on the consignment-note, see instructions on consignment-note. Otherwise, the damaged goods cannot be advertised. At the registration, shipping part number must be entered. Be sure to get the driver's approval by marking on that part of the consignment-note that there is a damage.

Hidden transport damage should be notified no later than seven days after receipt of the goods, see instructions on consignment-note.

The registration, consignment-note number must be entered. The packaging must also be saved.

Photo.

If possible, please take pictures of damaged packaging / goods.

Damaged or improper goods must under no circumstances be fitted.

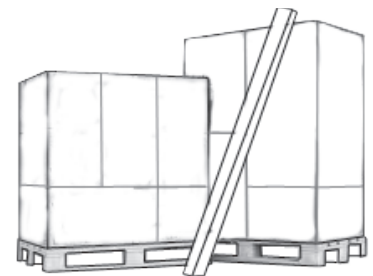
Additional costs for disassembling and replacing damaged details are not taken by Kvänum

## Storage of furnishings and doors

If cabinets, doors and parts need to be stored before installation, storage should take place in a temperate room + 18–22 ° C and the relative humidity between 40–60%. When receiving goods, it is important to cover the goods if there is precipitation and that the cabinets are quickly unpacked to prevent moisture damage.

It is important to protect visible surfaces as the wood can become unevenly matured. Especially if they are allowed to stand for a long time. Protect from light.

Materials that are incorrect must not be mounted.



## Packaging

Unpack all goods immediately. Plastic and corrugated cardboard can cause color shifts in the interior if it is exposed to sunlight. If marks appear, they will disappear over time, a process that can take several months. Joinery made by Kvänum is packed with cardboard corners that are held together by plastic tape. Pre-loaded pallets are packed with stretch film. All packaging is recyclable and easy to sort at source.

# Introduction

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## Assembly procedure



**To facilitate assembly and installation it is advisable to plan the order in which the units are to be handled. Further along in these instructions you will find more detailed information.**

- Remove the packaging from all the base units and tall units. Don't forget to remove the metal clips holding the protective masonite board under the tall unit. If you forget these they could cause scratch marks. Remove all packaging from the room as each unit is unpacked.
- Make sure that all units that have contact with water are mounted with an approved floor water protection.
- Attach the adjustable legs according to the instructions and position the units. Assemble according to the plans and make allowances for the length of the worktops. Make sure that the units are perfectly level.
- Fit the worktops.
- Measure out the distance to the support rails for the wall units and screw them in place. Hang the wall units. Make sure that the lighting wiring from the spotlights is placed on top of the units.
- Fasten the wall units to the wall with mounting brackets in order to prevent the wall units to slip out of the mounting rail.
- Fit the filler panels, canopies and cornices, covering sides and backs.
- Fit the plinths and plinth corners.
- Clean out the units. Be careful with runners and drawers with inserts.
- Putty-up and paint where required.
- Attach doors and drawer fronts. Adjust them so that they are positioned correctly and that the doors can be opened and closed easily.
- Fit screw hole covers and filler plugs.
- Remove the protective floor covering.

## Fittings and accessories box

A box containing screws, brackets, plinth corners, screw hole covers and other small fittings needed for assembly and installation is included in the delivery.



Fittings and accessories box with various small parts needed for assembly.

# Introduction

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## Painting the interior



**All interior parts in the i-series are delivered with primed carcasses, moulding and covering sides. Note that these have to be painted on site.**

In order to achieve a site-built feeling and an authentic style true to the time-period, doors and internally veneered units are delivered painted from factory (in some cases doors and internally veneered units can be delivered primed).

Kvänum has chosen a robust paint with good wearing resistant qualities. Remember that it takes about 2-3 weeks for the paint to be fully hardened. Be very careful with the interior during the paint hardening period.

For more information regarding painting, see separate instruction enclosed with the handpainting kit.



**It is important that the preparation work is performed correctly with thorough sanding in order to make the paint stick properly.**



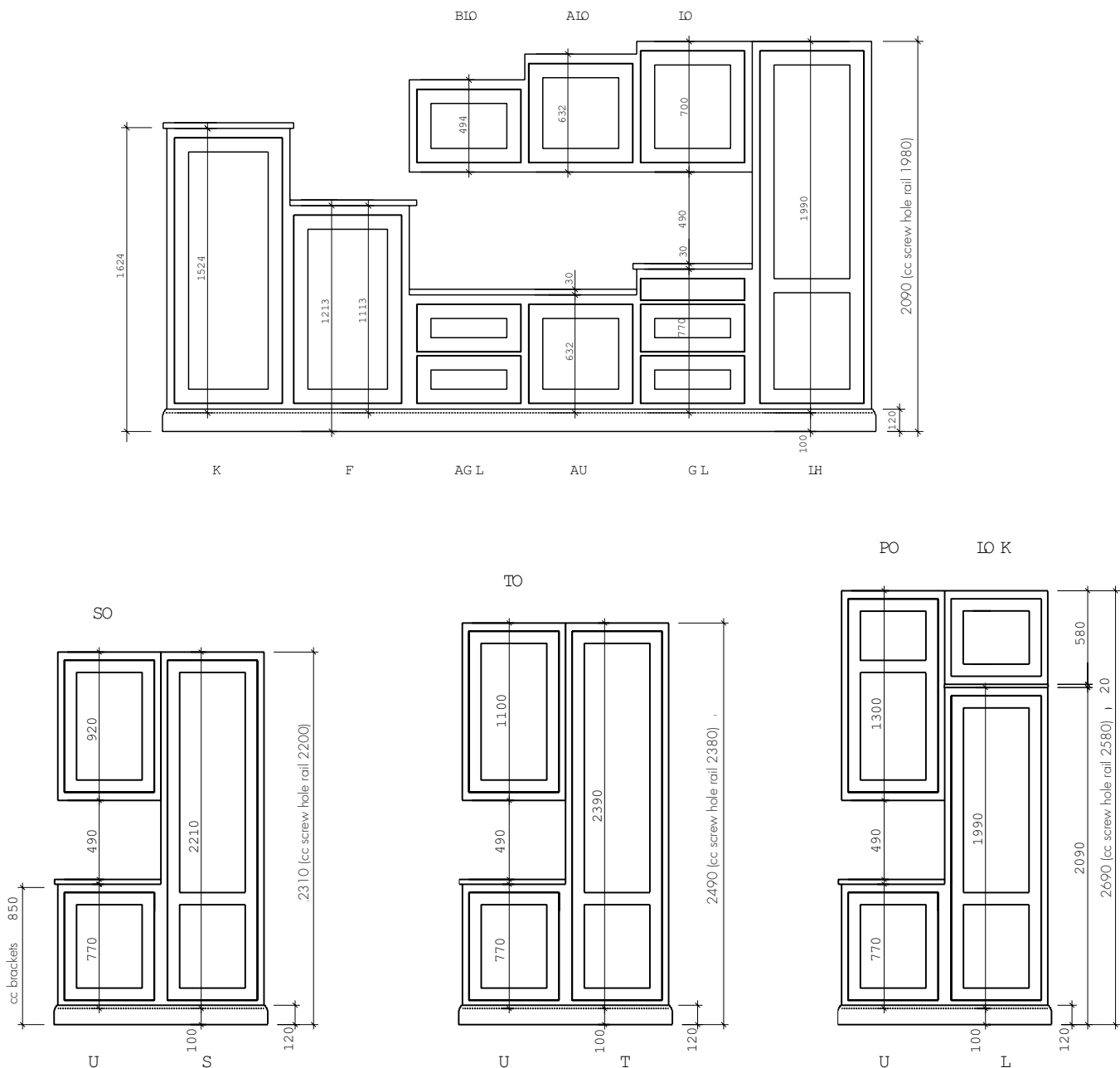
# Heights and dimensions

## Installation heights

Kvånum supplies units in a large number of heights, depths and widths. All tall units and wall units are attached to walls using a support rail that is fitted 110 mm under the top edge of the units. The standard installation heights for the i series units are shown in the drawing below.

Note that the space underneath the tall and base units is 100 mm, that the overlapping plinth is 120 mm high and that the space between the 30 mm thick worktop and the wall unit's lower edge is 490 mm.

The tall storage units have no rail fittings since these units are fastened to the wall with screws driven through a mounting batten.



# Heights and dimensions

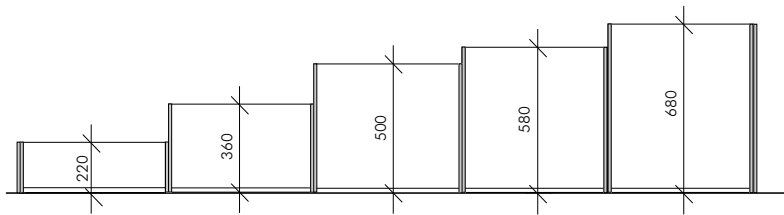
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## Unit depths

Five different unit depths in the i-series are available as standard: 220, 360, 500, 580 and 680 mm. Wall units are 360 mm deep. The backs of the units are recessed 18 mm to accommodate electrical wiring or water pipes.



**Unit rows with 580 mm deep units containing a dishwasher and/or built-under fridge/freezer, must be mounted with a distance of 610 mm from the unit front edge to the wall behind.**



Standard unit depths for the i-series. Note that some unit types are not available in all depths.

## Water leak prevention - Requirements

Prior to mounting the units, the position of the dishwasher unit shall be prepared with an approved water leak protection, i.e. sealed water leak tray, or an approved mat. This cannot be made afterwards. A water leak tray shall be placed under all appliances that requires so. This can be made afterwards.

# A - Mounting of units

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## Legs

Base units and tall units stand on adjustable legs. These are fitted by pushing the leg dowels into the pre-drilled holes in the bottom of the units. Fit four legs per unit. The plinth leg height is adjustable from -5 to +65 mm. For a plinth height lower than 95 mm, screw the leg apart and cut off of the outer groove.

Note that the bottoms of base units with drawers and doors are designed differently, which means that the legs have different heights.

## Base units



### **Check the floor slope before commencing installation work.**

Use a spirit level to check the level of the units and adjust them using the adjustable feet. Make sure that the dishwasher and other integrated appliances will fit even if the floor is not level.

Before starting to mount the units, an approved floor water protection, e.g. a special tray with sealer or an approved mat, must be placed where the dishwasher unit shall stand. This cannot be done afterwards. A floor protection tray must be placed under all appliances that requires floor protection, this can be done afterwards.

Use clamps to fix the units during installation. Protect surfaces from scratches by using furniture felt under the clamp jaws.

Before screwing the units together make sure that all filler pieces and any other adjoining sides have been correctly sawn to match the lengths of the worktops. This is especially important when stone or stainless steel tops are used, as the dimensions of these cannot be adjusted.

## Kitchen island

After adjusting the plinth legs, the plinth legs shall be fixated to the floor with screws in order to prevent the kitchen island from falling over and thus cause personal injuries.



Use clamps to fix the units together during assembly. Place the first and last screw as high and as low respectively as possible along the unit front edge.

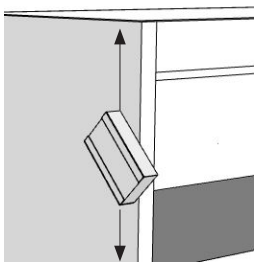
# A - Mounting of units

## Sand and glue

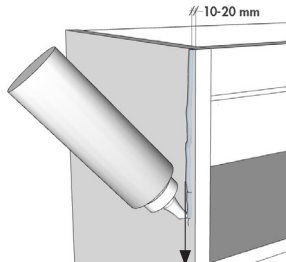
**To get correct meetings between the cabinet frames and avoid movement and cracks, the cabinets must be glued and screwed tightly together. Gluing and screwing according to these instructions is necessary for the end result after filling and painting to be good.**

**The goal is for the two joined cabinets to be experienced as an entire surface without a visible joint.**

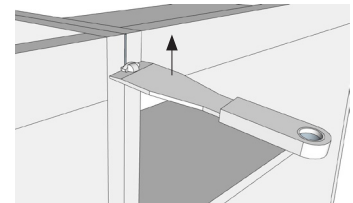
First, the surface to be glued must be sanded and roughened. Glue with white glue for outdoor use. Lay a glue string all the way on the side from the top and down along the front edge of the frame. Let the glue be pressed out on the front edge of the frame when tightening. Immediately scrape off excess protruding glue.



Sand the side along the front edge before gluing.



Lay an adhesive string all the way from the top down the front edge of the frame.



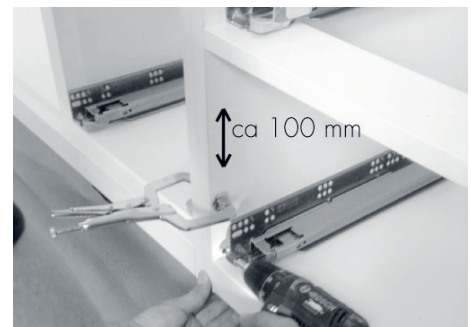
Scrape off excess sticky glue.

## Screw

Use the enclosed assembly screws, 3,5 x 35 mm, that are especially designed to pull the units together. The screws shall be placed close to each other, approximately 100 mm distance. Fit the screw so that the screw fits into the material approximately 1 mm. Be careful that the screw does not pass through oncoming material.

After spackling and sandpapering an almost invisible join will result.

When the units have been screwed together they are fixed to the wall behind using the mounting brackets supplied in the accessories box. Note that it is sufficient to fix the units at a few places along the run of units. When the base units are to be brought forward from the wall to accommodate deeper worktops, extra wall battens should be attached to the wall to support the units. These battens will also form the support for the rear of the worktop.



Place the screws closely, approximately 100 mm distance from each other.



Place as close as possible to the unit top and bottom respectively.

# A - Mounting of units

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## Wall units and tall units

Wall units and tall units have mounting rail fittings placed behind the recessed unit backs. The system includes 2000 mm long support rails that are attached to the wall 110 mm under the upper edge of the units and along the whole run of units. The distance is measured the centers of the screw heads. Adjoining units have to be rebated to allow for the rail. Note that the rail ends 10 mm short of the end of the last unit.

Ending units sides are normally fitted with covering sides or dummy doors. These are glued and screwed to the unit.

The storage tall units have no mounting rail fittings since these units are fastened to the wall using screws driven through a mounting batten.

Most wall units are equipped with spotlights that must be connected to a transformer. See section "Electricity installations".



Support rail attached to wall.



**To prevent accidents caused by units falling off the wall, the rail must be securely fixed to the rear wall.**

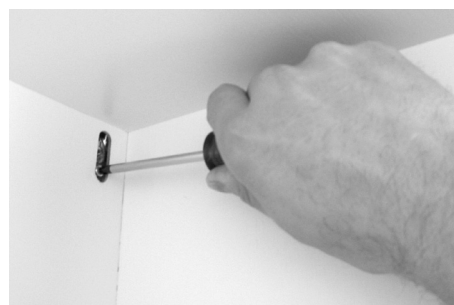


**It is extra important to fasten units that stand on the floor to the wall, in order to secure them from falling over.**

Hang the units on the rail and adjust them sideways and vertically. The mounting rail fitting can be adjusted from the inside of the unit using the adjusting screws. These can be seen in the oval holes in the back of the unit. The units can be adjusted  $\pm 6$  mm vertically and  $\pm 5$  mm in depth.



**Cover the hole with the supplemented covering plate after finishing the adjustment.**



Adjustment of support fittings is easily carried out using a flat head screwdriver. Cover this hole after adjustment.

# A - Mounting of units

When the units have been adjusted they are to be screwed together using the assembly screws. At least 6 screws per unit are enclosed in the delivery.



**Fix the upper edges of the units using mounting brackets so that the units cannot slide out of the rail.**



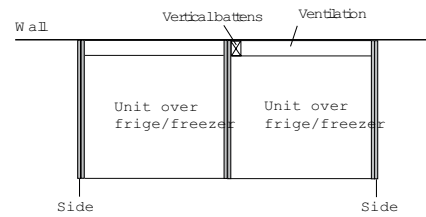
**Wall units that are higher than 1100 mm must also be attached at the base to ensure secure installation.**

When mounting a tall unit beside a base unit, a dividing filler piece is often used. This filler piece must be mounted in order to obtain the designed worktop overhang.

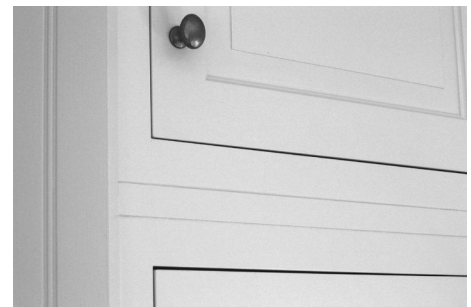
Make sure that the space left for ventilation for fully integrated fridges/freezers is not reduced. Check the appliance manufacturer's instructions carefully.

Wall units above freestanding fridges and freezers must be fixed to adjoining tall units, wall units or covering sides. Top wall units above fridges/freezers are to be fixed to the rear wall or vertical battens behind the units using mounting brackets. Be sure to check that the machine fits under the cabinet.

Tall units for P height designs are normally created by combining an L height unit with a 20 mm thick spacer and a 580 mm high wall unit. The spacer is proud of the frames and forms a horizontal shadow moulding.



Positioning fixing batten for units above fridges.



Detail showing the 20 mm thick spacer for a P height wall unit

# A - Mounting of units

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## Covering sides and dummy doors

Covering sides are smooth end pieces that are used on open ends of a unit to create an equal width on both sides of a door or drawers. Dummy doors are made as a frame door and are used in the same way as a covering side.

It can be advantageous to attach covering sides or dummy doors before positioning the unit. This will make it easier to handle, especially if it is a tall unit or a wall unit. Note that the covering sides are to be glued to the unit. Sandpaper the sides of the unit lightly to ensure good adhesion. Use construction adhesive or similar. Fix the side using clamps and possibly use hidden screws from inside the unit.



**Note that the larger panel on tall dummy doors should be uppermost.**



Covering side mounted to the side of a wall unit.



Dummy door mounted to the side of a wall unit.

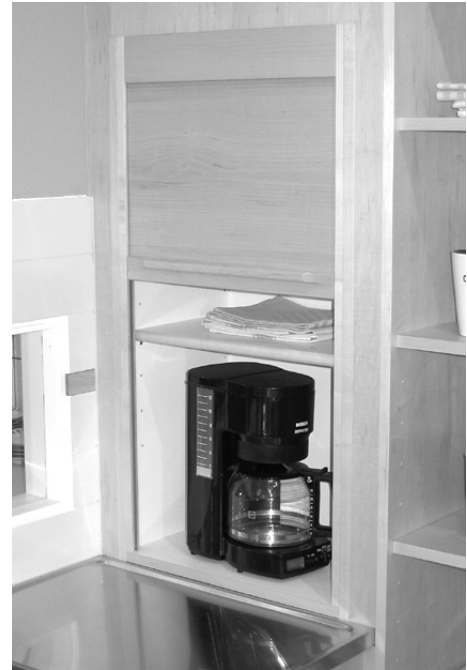
# A - Mounting of units

## Roll-front unit

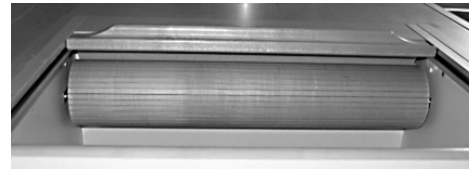
The roll-front unit is assembled in a similar way to other units. Take extra care to ensure that the unit is not pressed together or pulled apart when attaching to adjacent units. It could cause the roller to jam.

The runners recessed in the unit sides can be greased. The roller spring can be adjusted by first removing the handle. This is accessed from the inside of the unit. The screws are at the back of the handle. Raise the roll-front past the white runners and tighten or loosen the spring by turning the roll-front. If the roll-front is removed make sure that the arrows at the ends of the white plastic dowels point upwards before reinstalling it. Pull the front back through the runners and attach the handle. After some time of usage, an adjustment of the spring might be needed.

Note that when in use coffemakers and other small appliances must be placed outside the cupboard. Steam and moisture may cause damage to the unit.



Roll-front unit with partially open door. Be careful when assembling not to press the sides together, since it could cause the roll-front to jam.



Completely open unit with the roll-front coiled under the top of the unit. Photographed from below.

# A - Units for integrated appliances

## Base units for oven

Base unit for oven are either 640 mm or 940 mm wide. Two spacers for the oven are included in the delivery and these are screwed into the sides of the unit. The spacers should be placed deep enough to allow the front of the oven to be flush with the front edge of the unit.

## Tall units for integrated ovens/coffee machines/microwave/steam ovens etc.

Tall units for integrated appliances are 640 mm wide. Two spacers for the oven are included in the delivery and these are screwed into the sides of the unit. The spacers should be placed deep enough to allow the front of the oven to be flush with the front edge of the unit.

The space for the appliances has a standard height. If there is a gap above the appliance, cover with a filler panel. Fix with adhesive and screws.

The unit's back is recessed 45 mm in order to make room for pipes and give enough ventilation space.



**If the appliance requires ventilation, make a cutout in the base of the plinth and/or insert a grille.**



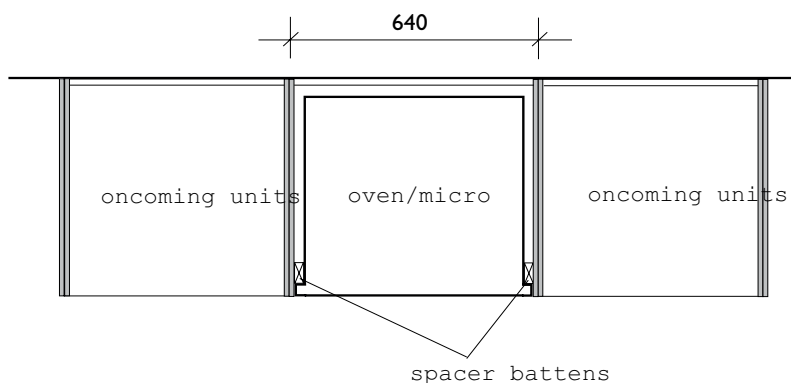
**The warranty does not comprise damage caused by steam from a steam oven.**



**Note! Waterproof with the floor protection!**



Tall unit for integrated oven or micro. Note the front of the micro is flush with the front edges of the frame.



Horizontal section through an integrated oven.



Detail showing the spacers for an integrated oven.

# A - Units for integrated appliances

## Tall units for integrated fridge/freezer

Tall units for integrated fridges are i regel 640 mm wide. Note that not all types of integrated fridges and freezers can be fitted with recessed doors. Be sure to check that the appliance fits in the cabinet.

Install the fridge according to the manufacturer's instructions.



**Note that the fridge must be placed in the center of the unit otherwise the coupling mechanisms between the unit doors and the appliance doors will not work.**

Battens for positioning the appliance is mounted inside the unit. In order for the door to close properly the battens must be recessed 30 mm compared to the unit's front edge.

First mount the appliance, and then the door. Remember to mount the handle or knob to the door before mounting the door to an appliance.

Make sure that the door of the fridge/freezer closes tightly when closed.



**The appliance requires ventilation, make a cutout in the base of the plinth or insert a grille. The unit must also be ventilated from above or through the filler panel via a grille.**

If the unit is designed for an appliance with ventilation only in the lower end, follow the instructions from the respective manufacturer.



**Note! Waterproof with the floor protection!**



**Integrated doors for free standing fridge units, Gaggenau RB 492 and RY 492**

We recommend the width of the unit over fridge/freezer to be 952 mm. Mount two 19mm sides under the unit for fridge/freezer, on each side of the fridge/freezer.

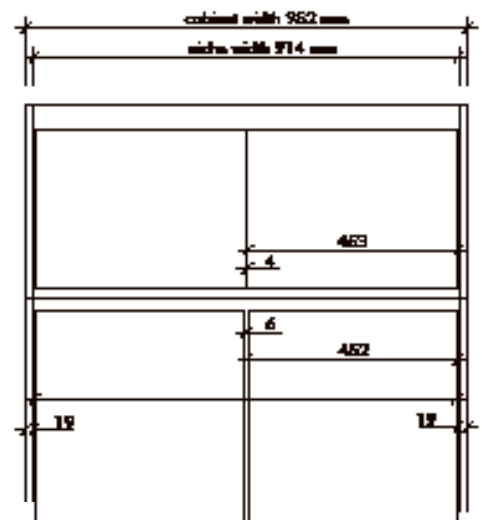
Sundby plinth **does not** work together with these fridges.



Ventilation of a tall unit with integrated appliances via an opening in the base of the plinth. Alternatively, an aluminum grille can be inserted in the plinth and painted to match the kitchen's color scheme



Integrated fridge installed in a tall unit. Note the door stop batten.



# A - Units for integrated appliances

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## Integrated built-under fridges and freezers

Integrated built-under fridges and freezers are installed in 640 mm wide openings.

Start by measuring out a 640 mm wide space. Install the filler sides and then the appliance. Fix the lower battens using steel brackets so that they are flush with the front edges of the filler sides. Attach the door according to the manufacturer's instructions. Don't forget the handle.

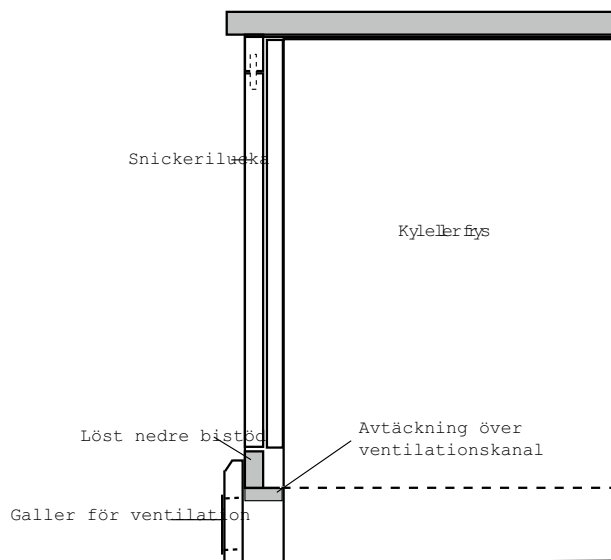
The fridge is only ventilated at the bottom of the unit. Make sure that you follow the manufacturer's instructions regarding airflow requirements. The ventilation openings are visible when the door is open. Cover them with a filler piece or similar and install an aluminum grille in the plinth. Paint the grille and plinth.



**Make sure that the plinth can be easily removed if servicing is required.**



**Note! Waterproof with the floor protection!**



# A - Units for integrated appliances

## Integrated dishwasher

Fully integrated dishwashers are installed in a 640 mm or 490 mm wide opening.



**Note that the depth of the opening must be at least 610 mm to ensure there is room for the appliance and the door.**

Always fix a 19 mm filler side on each side of the dishwasher. This will ensure the right width between the dishwasher door and the doors of the adjacent units.

Install the dishwasher according to the separate instructions supplied together with dishwasher ceiling.

The DWV-ceiling is to be used only for low appliances.

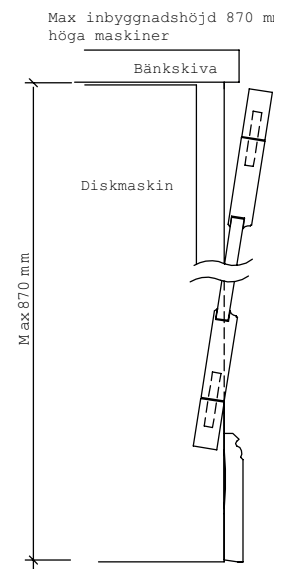
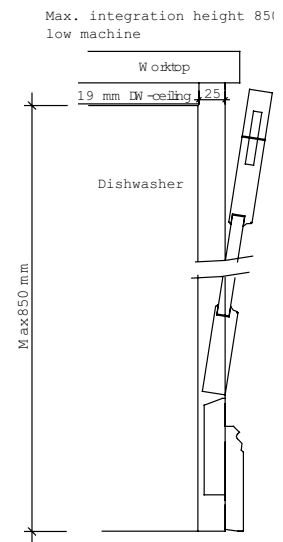
The plinth shall be mounted in front of the dishwasher in the same way as an ordinary unit. It might be necessary to make a cut out from the top edge of the plinth in order to enable the door to pass.

**Make sure that the overlay plinth can be easily removed for service.**

**Note! Waterproof with the floor protection!**



**It is important to secure the interior from water damage. The warranty is not valid for damage caused by e.g. opening a dishwasher too early, since steam can damage the interior.**



Detail of the door with the mounted dm-bar.

# A - Units for integrated appliances

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## Tall units for integrated dishwashers.

Tall units for integrated dishwashers are fixed in position using adjacent units or sides in the normal manner.

Attach the enclosed steam protection plate under the worktop according to the dishwasher manufacturer's instructions.

The floor protection, which normally is included in the delivery, shall be placed on the floor under the dishwasher.

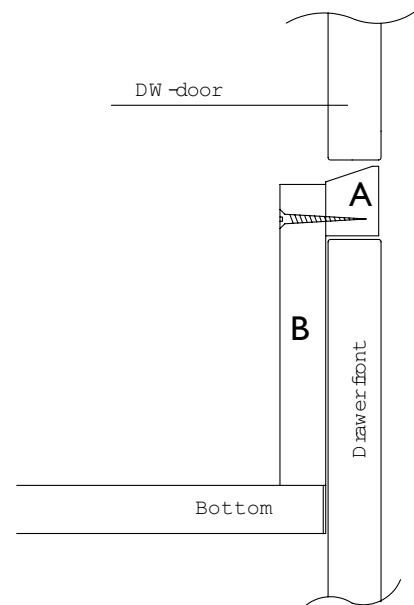
Position the dishwasher.

Fix the sides or top of the machine according to the manufacturer's instructions.

Attach the wooden front to the front of the washer. Don't forget to fit a knob or handle before the front is fitted to the machine.

Mount the dishwasher filler piece according to the separately enclosed instruction.

### **Note! Waterproof with the floor protection!**



Detailed sketch of mounting the dishwasher filler.



# Other units and details

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## Filler panels and cornices

Always fit filler panels flush with the sides of the units. Filler pieces between walls and wall units with externally veneered bottoms are to be beveled 45° in order to form a 90° mitre joint, which shall be glued together when fitting.

Glue or screw on the filler panels from the inside of the unit. Position the screws so that they will be as unobtrusive as possible. Wide filler panels will need extra support on the walls or ceiling.

Wall units in the i series are fitted with a 49 mm high batten at the front edge of the frame. If the ceiling panel can be fixed directly to this batten then no other support is necessary. If the distance to the ceiling is large, an extra batten is available that can be glued and nailed to the fitted batten and up to the ceiling. This batten is supplied in dimensions 2400 x 195 x 10 mm. Fix a sturdy batten to the ceiling to support the cornice and filler panel.

## Moulding

Cornices and ceiling coving can with an advantage be made of the same type of moulding. The cornice is a concave moulding with the dimensions 65 x 65 mm which is delivered primed in random lengths. The moulding is glued and nailed when mounted.



Filler panel between ceiling batten and the upper part of a wall unit.



Cornice in the form of a concave moulding

# A - Mounting details

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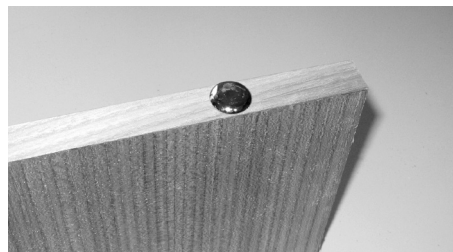
## Covering sides and boards

In some kitchens veneered sides and boards are used e.g. for covering kitchen islands or stand-alone fridge/freezers. Sides/boards are supplied according to the dimensions given by the designer and might have to be adjusted slightly on site.

Backs for islands or bars should be screwed and glued on from the inside of the units.

Sides adjacent to free standing fridge/freezers, or used at a unit row ending with a dishwasher, shall be fastened to the wall and floor with mounting brackets. Note that some supporting sides between base unit and fridge/freezer starts from plinth height. If a veneered side is standing on the floor, adjustable feet shall be mounted to the side's floor facing edge. The side's height then needs to be cut.

**When sides and boards are cut, the cut edge must be sealed in order to be secured from moist damage.**



Dummy side fitted to a wall unit.

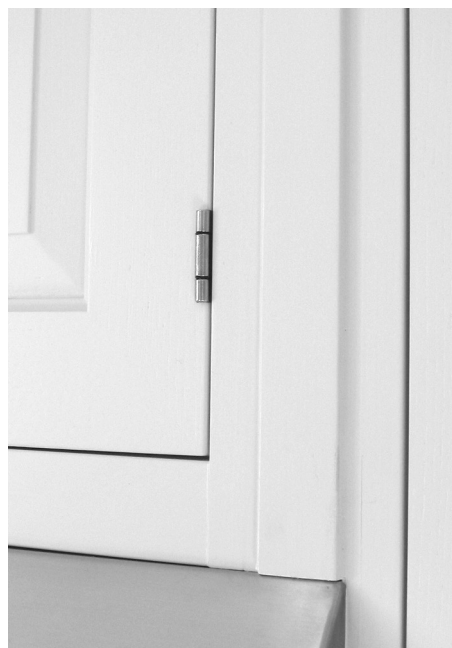
## Pilasters



Kvänum supplies milled, straight and beveled pilasters available in widths of 50 and 75 mm. The pilasters are normally fixed in place by screwing from inside an adjoining unit. The pilasters are normally placed proud of the adjoining unit, according to the planner's recommendations.

Note that if a pilaster rests on a pilaster base that is wider than the pilaster itself, a filler piece must be placed between the pilaster and the adjacent unit.

**If a pilaster stands on a worktop, a soft sealant must be used for moisture protection.**



Straight pilaster installed next to an extractor hood.



# A - Mounting details

---

## Shelves, grocery units and shelf antiques

Shelves are supplied with keyhole fittings for hidden assembly or in some cases with a rear batten, through which the shelf can be screwed to the wall. Some shelves have hidden fixtures that are screwed into the wall and the shelf is then slotted into them. These fixtures have eccentric fastenings, which means that the shelves can be adjusted vertically after installation.

Hidden shelf supports can also be made by gluing steel fixtures into holes drilled into the wall. The shelf is then glued to the fixtures.

Check the type of wall that is going to be used.

The best solution for walls of board material is to put a batten behind the shelf so that there is plenty of material in which to fix the supports.

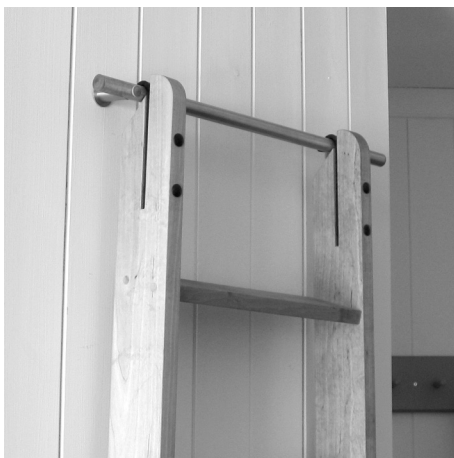


Shelve with space for glass grocery and storage drawers.

## Ladder and rail

The rail is made of a steel tube that is attached to a 75 or 50 mm spacer moulding. The batten is installed 20-25 mm proud of the front edge, depending on design, and 10 mm proud of the sides. Attach the moulding securely from the inside of the upper and lower unit so that it can carry the weight of the ladder and an adult person.

Put on the correct number of rail fittings and place them in agreement with the seller. Maximum distance between the rail fittings must be 1000 mm. The rail ending shall be mounted with glue.



Wall attachment for the ladder.



Ladder leaning on a rail. Note that the rail is fixed to the spacer batten between the units.

# A - Mounting details

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## Wooden extractor hoods

Although extractor hoods are available in many different designs they are all installed a similar way.



**Note that all questions regarding ventilation must be dealt with by qualified installation technicians.**

It is important that the technical specifications for each specific model are readily available. Ask your designer to supply the necessary specifications.

In some case the hoods have pilasters that go down to the worktop. Make sure that the bottoms of the pilasters are sealed with silicon. The silicon will also glue the pilaster to the worktop. Then attach the hood's edging to the pilasters. Finally, install any wall unit or front panel and the fan.

## Sundby

The extractor hood Sundby is mounted to the wall with the sides free and not directly adjoined to other units.

The hood is fastened to the wall using a sufficient amount of mounting screws depending of the wall type, driven from the inside of the hood directly through the hoods back.

Sundby extractor hoods with width 1340 mm also have a mounting batten to drive mounting screws through, in order to add extra support to carry the weight of the hood.

The hood top is delivered primed to be hand painted on site. The hood's inside is lined with high pressure aluminium laminate.



The Sundby fan hood, the upper part of the hood is spackled and painted on site.

# A - Mounting details

## Trolmen and Råbäck

The Trolmen and Råbäck mantelpieces are made in standard widths to fit 900 mm or 1200 mm wide units.

The mantelpieces shall always be combined with pilasters.

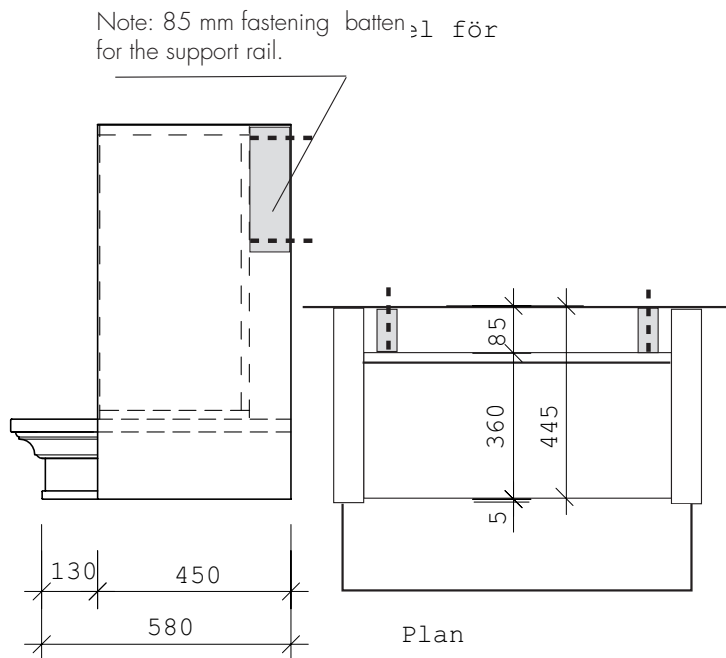
For worktops with greater depth, the hood solution is joisted another 85 mm further from the wall. The total depth for the hood solution will then be 580 mm, see sketch below.



**Note that it is not sufficient just to fasten the hood solution to the pilasters with screws. Support rails fixed to the wall or to support battens are required to hold up the hood solution and prevent it from falling down.**



Detailed view of the profiled moulding on the Råbäck hood solution.



Note that 85 mm thick battens must be used for the support rail to be firmly fixed onto when installing the 580 mm deep extractor hoods. Screw the battens into the wall and make sure that the screws are long enough to give sufficient support to the support rail.

# A - Plinths

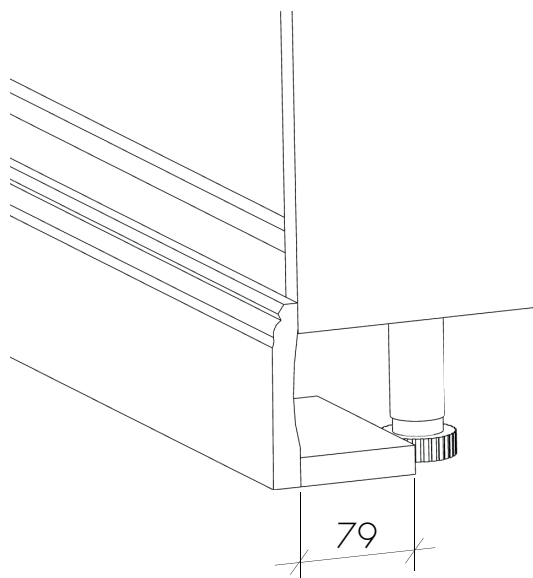
## Overlay Plinths

Units in the i-series are normally fitted with an overlay plinth. The plinth connects to the cabinet's bottom trim. It is delivered primed in variable lengths.

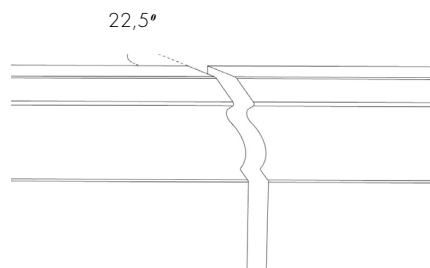
Small blocks are included with the overlay plinths; these are placed at the base of the plinth legs to provide support at the bottom edge. Attach the blocks lightly to the floor using glue or double-sided tape.

The cabinets are normally mounted 100 mm above the floor. The overlay plinth covers this space and overlaps the cabinet's bottom trim by approximately 20 mm. However, depending on the floor's slope, different amounts of the bottom trim may be visible in the finished kitchen.

Spacer block



Length joints are mitered at the intersections.



# A - Plinths

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## Mounting a plinth in front of an appliance

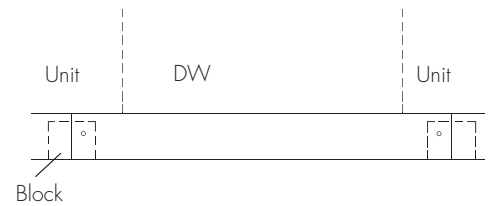
It is often convenient to make a part of the plinth in front of an appliance removable in order to make it easy to pull out the appliance for service purposes. In such cases it is suitable to cut the plinth on either side of the appliance.

Make the cuts approximately 200 mm outwards each side of the appliance.

Glue and screw a wooden block from the back side of the plinth ends adjacent to the removable plinth piece, as a support behind each joint.

Fasten the removable plinth piece underneath the appliance with a screw from the front side (please refer to the picture). It might be necessary to adjust the height of the removable plinth piece in order to make it possible to open a dishwasher door.

**Make sure that plinths in front of integrated appliances will be easy to remove if servicing is required.**



## Sealing towards the floor



The plinths are delivered sealed with paint, and if one wishes to enhance the sealing just add another coat of paint.

When a recessed plinth stands on a tile floor, a rubber sealing strip can be used in order to achieve a neater connection.

The rubber strip is attached to the plinth with double-sided adhesive tape.

The rubber strip is not included and has to be specifically added to the order.

# B- Appliances

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## General



**All installation work for water, electricity, gas, wastewater and ventilation must be carried out by authorized persons.**

If this is not done then guarantees and insurance policies might be void. Take care to read the suppliers installation instructions and follow the directions regarding ventilation, insulation, fire safety etc.

Many buildings and apartments have old electrical installations. Check with your electrician that the appliances chosen can be connected to the existing power supply.

**Dishwashers** – These are made in three versions: for complete integration with a wooden door, semi-integrated with a visible panel and a wooden panel, or integrated with the machines own front visible. Integrated machines are installed according to manufacturer's instruction, see section on integrated dishwashers.

Miele's totally integrated dishwashers have an indicator light at the top of the door. The indicator lamp is hidden in some types of installation.



**Note that dishwashers must never be opened during the drying program to prevent that steam can escape and condense on adjacent woodwork.**

**Note! Waterproof with the floor protection!**

**Ovens** - These are made in standard sizes to fit 640 mm or 940 mm wide units. Ovens for installation in tall units are ventilated through the fronts of their own frames. Despite this, it is often advisable to allow for extra ventilation by making a cutout in the plinth to facilitate free flow of air behind the unit.

**Steam ovens** – Available with or without connections for water and waste. Check which model you have ordered from your supplier. Read the installation instructions carefully; check the connections and electrical requirements before starting installation work.



**Note! Waterproof with the floor protection!**



Fully integrated 45 cm wide dishwasher.

## B- Appliances

**Microwave** - These are normally made for installation tall units and for shallow wall units. In some cases a filler panel is needed to cover the hole above the microwave. Cut to required height and attach on from the inside using steel brackets.



**Microwave can also be placed in standard units but must not be used when the doors or roll-fronts are closed.**



**Note! Waterproof with the floor protection!**

**Coffee machines** - Some manufacturers supply coffee machines that can be integrated into tall units or wall units. Install according to manufacturer's instructions. Be careful to note if any water supply or drain connections have to be made.

**Fridges and freezers** - These are made in a number of versions and sizes. Fridges and freezers that are made for total integration are to be installed according to the manufacturer's instructions.



**Make sure that the plinth has an opening or is ventilated in some way so that there is a sufficient flow of air. See manufacturer's installation instructions.**

**Note! Waterproof with the floor protection!**

**Icemakers** - Large fridges often include icemakers. Note that some appliances often require connections to water and drains. Check with each supplier. Ice makers are often required to be placed in spaces built on site. Take special care to ventilate around the unit. Remember to measure the thickness of the doors and the opening angles.



Microwave oven with stainless steel frame.



Icemaker with stainless steel doors.

## B - Appliances

**Fans** - Fans are made in a large number of models, designs and sizes. It is important to make sure early on in the installation process that the necessary fan ducts have already been installed or can be installed. Otherwise they will not function properly. Ask your ventilation expert about suitable duct diameters and where to place them. Note that every bend in the ducting will noticeably reduce the efficiency.



**The installation must be performed by an authorized craftsman.**

All duct and pipes shall be mounted in good time before mounting the rest of the kitchen units and carpentry.



**When installing a fan the apartment owner must make sure that the system does not cause any discomfort to the other tenants. If this is the case, carbon filter fans can be used.**

If fans are installed near fireplaces then the set-up must be inspected by a chimney sweep. Get in touch with your chimney sweep in good time before starting installation work.

Freely suspended fans must have proper ceiling supports. Check the installation instructions and confer with your joiner or carpenter.

Ceiling mounted fans require conduits for wiring to the control unit and the fan motor.

Fans over gas ranges must not be installed near to the burners. Check the installation instructions for the chosen fan.

### **Hobs, grills, deep fryers, and steamers**

These are made in numerous versions but they all have something in common: they are built into openings in the worktops.

Hobs are attached using underside fixtures or special moldings fitted to the worktops. Some hobs are also glued to the worktop. Make sure whether the hobs require extra large space in the base unit. Steamers, for example, require drain connections and deep fryers and grills need space for drainage taps. In some cases a dummy unit is required to accommodate the hob. Check the manufacturer's installation instructions.



Freely suspended fan

# B - Appliances

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**Waste disposal units** - Waste disposal units are installed under sinks and grind kitchen waste so it can be flushed through the drain system. Check that this is allowed in your county. Note that nearly all the space under the sink is required for the disposal unit.

**Plumbing** - Mixertaps, sink traps and sinks must be mounted by an authorized craftsman. Note that if nothing else is stated a mixertap is not included in the delivery from Kvänum.

Holes made for pipe passage through the cabinet bottom must be made with consideration to drawers and tall drawers etc. Always place the pipes as close to the unit back as possible, and when applicable on the side that has no tall drawer/pull-out. Pipes can also be placed behind the units or under the units behind the plinth.



**All appliances that have water connected to them, e.g. dishwashers, sink units, fridges/freezers, coffee machines etc. must be equipped with floor water protection. See separate documentation that is enclosed with the appliance.**

## **Gas**



**All installation work must be carried out by authorized persons**

Installation accessories such as hoses, couplings, connectors, pipes and pressure regulators are not included in the delivery.

See your local regulations concerning gas installations.

# B - Electrical Installations

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## General electrical information

Check with your electrician what conditions apply in the property where the assembly will take place. In some cases, it may be necessary to upgrade the power supply to meet increased power demands.

The back panel of all units is recessed by 18 mm to allow for cable routing.

All electrical connections must be made using the components included in the delivery. Connections should use pre-assembled quick connectors on the secondary side and plug connections on the primary side, into power outlets. This ensures the manufacturer's warranty remains valid and allows lamps and drivers to be replaced without tools.

Ensure that cables are not fully stretched during installation. They should run freely behind the units to allow fixtures to be pulled out later for replacement if needed.

Drivers should be installed in accessible locations — inside a unit or behind a panel. In cases where there is a top connection on wall units, a hole can be drilled in the top of the unit using a hole saw. The driver is then fed through the hole, which is covered with a blanking cap. This does not apply to units with veneered interiors.

The driver should not be connected to the same phase as refrigerators, freezers, or fluorescent lighting. Uneven current may cause premature lamp failure.

If the lighting is to be controlled by a dimmer, ensure that it is compatible with electronic drivers.



- Installation must be carried out by qualified professionals.
- Incorrect wiring may damage the products and, in the worst case, cause a fire!

## Positioning of power outlets for appliances

Please note that electrical safety regulations must be followed. Keep in mind that it should be easy to unplug the appliance when needed, without having to twist or move the unit.

A recommended placement of outlets may look as follows:

**Hob unit** – run cables up and place the outlet for example between drawers.

**Oven/microwave unit, L-height** – 1940 mm from the floor, in the space above the appliances.

**Oven/microwave unit, S and T-height** – 2160 mm from the floor, in the space above the appliances.

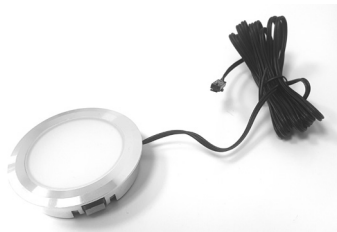
**Top unit for fridge** – place the outlet so it is accessible without needing to move the fridge, for example in the space above.

**Dishwasher** – place the outlet in the adjacent unit, preferably in the sink base unit.

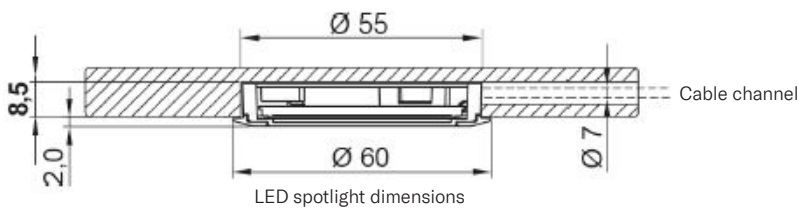
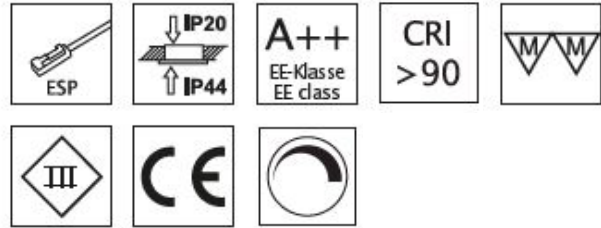
# B - Electrical Installations

## Led-spotlights

Pre-installed spotlights in shelves and the bottoms of top units come with a 2000 mm cable.

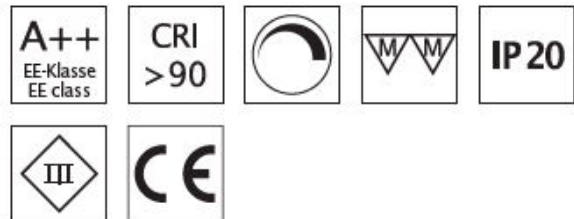
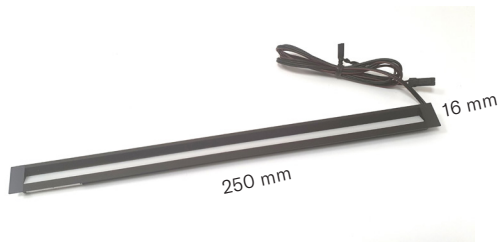


2700 K  
3W/spotlight  
24V  
IP 44  
Dimmable on the primary side

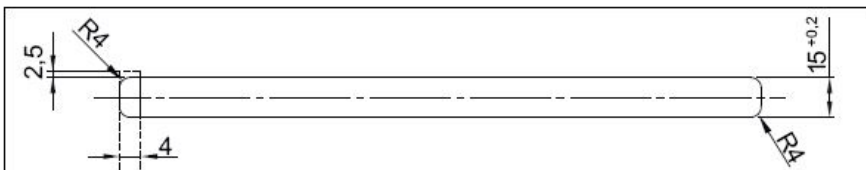


## Led Line 16

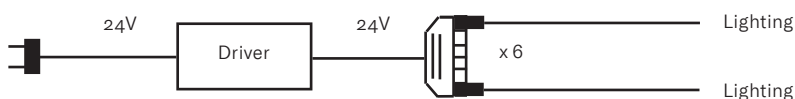
Line 16 is primarily a decorative light and not intended as task lighting.



Cut-out dimensions for possible in-place installation.



## Wiring diagram



Number of Line 16/Driver  
74987 Driver 50 W =  
74167 Driver Dali 20 W =

6 pcs Line 16  
4 pcs Line 16

# LED-Spotlight

## Led Line 24

Line 24 – Task lighting, assembled in the factory, in the underside of the unit.

Connection system



Extension cable

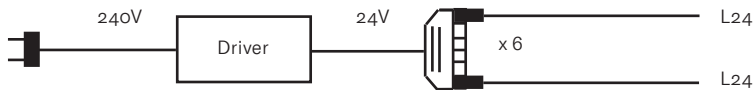


2000 mm



2700 K  
24V  
14W/lpm  
IP 20  
Dimmable on the primary side

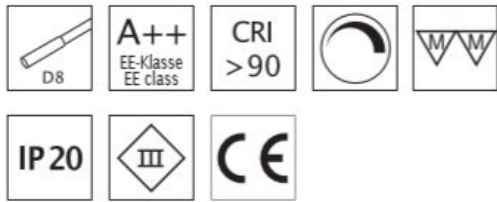
### Wiring diagram



Watt/Width		Line 24 lpm/Driver	
Unit width	Watt	74987 Driver 50 W =	3,5 m Line 24
300 mm	3,5 W	74167 Driver Dali 20 W =	1,4 m Line 24
400 mm	5 W		
500 mm	6,5 W		
600 mm	8 W		
700 mm	9 W		
800 mm	10,5 W		
900 mm	12 W		
1000 mm	13,5 W		

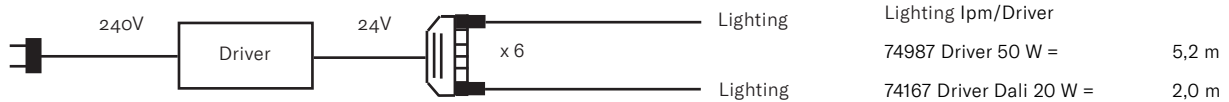
## LED lighting inside unit

The LED lighting is mounted on the inside of the unit sides at the factory.  
 The LED strip is 9.6 W per metre, with one strip on each side.  
 To calculate the number of drivers required, take the unit's height in metres  $\times$  18.2 W.  
 Connection to the driver is made above the unit.



2700 K  
 24V  
 9,6W/lpm  
 IP 20  
 Dimmable on the primary side

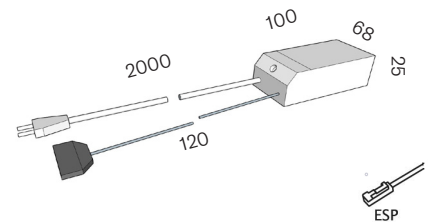
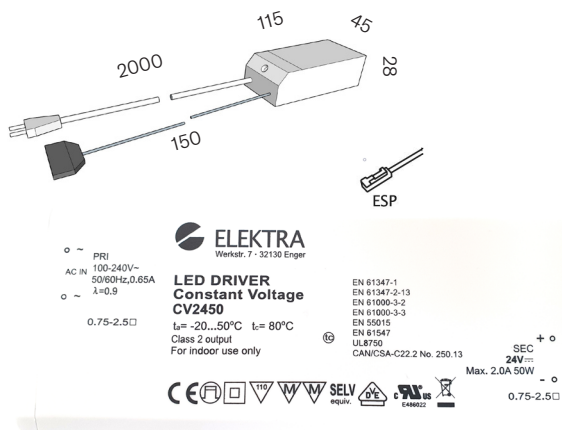
## Wiring diagram



## Drivers

74987 Driver dimmable 24V/50W

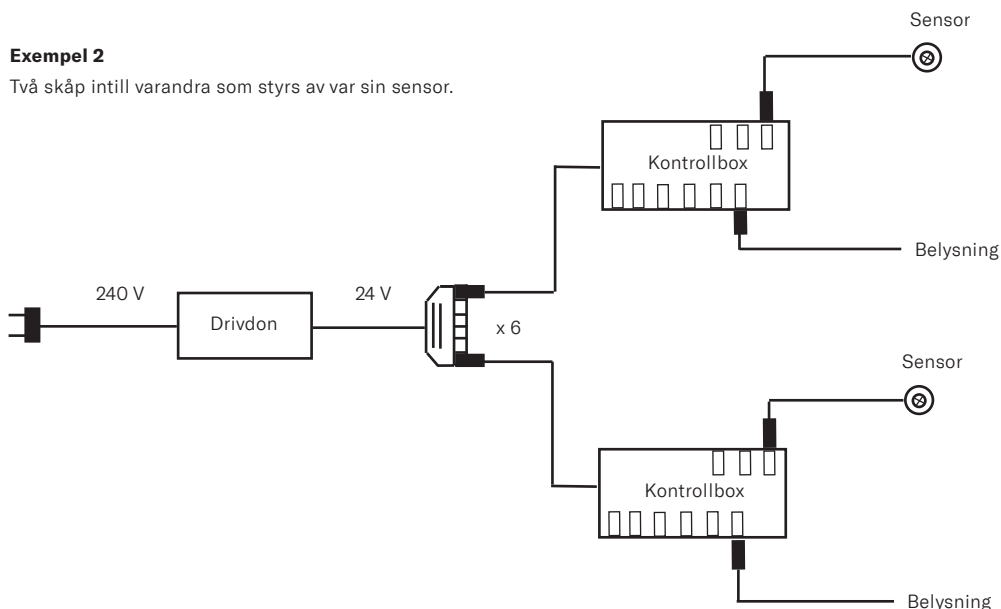
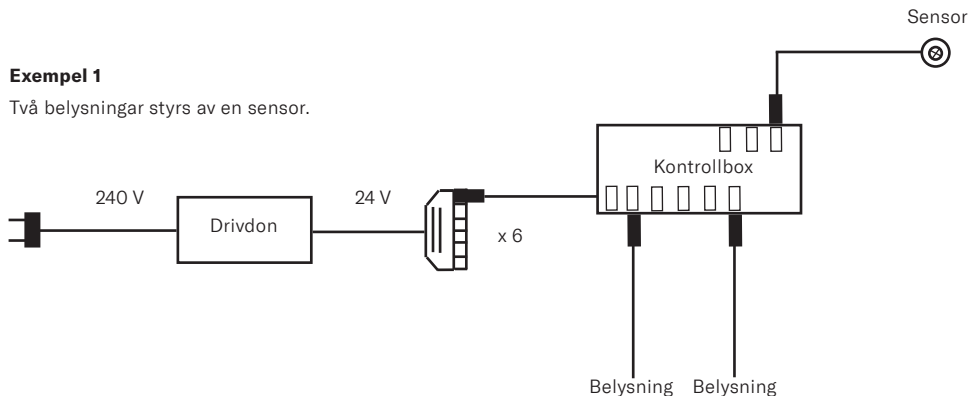
74167 Driver Dali dimmable



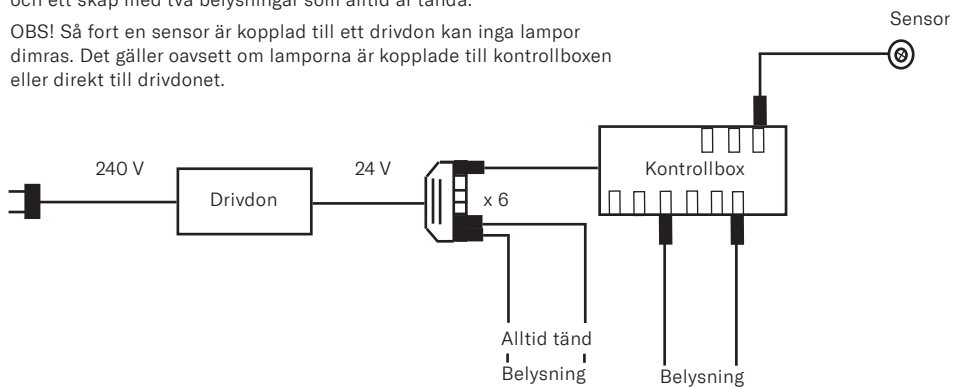
## Led-belysning sensorstyrd

För att tända LED-belysningen i skåpet när man öppnar luckan kan man använda en rörelsesensor. Sensorn är fabriksmonterad i skåpets tak.

OBS! Drivdon som är kopplade till en sensor kan ej dimras.



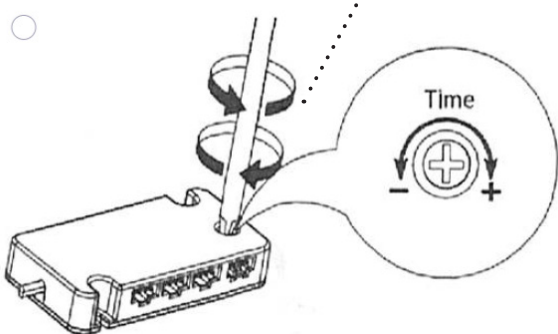
**Exempel 3**  
Ett skåp med två belysningar som styrs av sensor och ett skåp med två belysningar som alltid är tända.  
OBS! Så fort en sensor är kopplad till ett drivdon kan inga lampor dimras. Det gäller oavsett om lamporna är kopplade till kontrollboxen eller direkt till drivdonet.





### Kontrollbox

24 V  
6 portar för belysningar  
3 portar för sensorer



Inställning av fördröjd släckning av sensorstyrd belysning från 5 till 120 sekunder. Lampan slocknar efter x antal sekunder om sensorn inte har registrerat någon rörelse.

# C - Doors and drawers

## Mounting doors

To minimize the risk of damage during transportation and handling, all doors, drawer fronts and GL deep pan drawer fronts are delivered in separate packages. Doors are normally delivered without holes for handles and knobs.

Hinges in the f series are attached to the doors using 3.5 x 1.5 mm Torx T15 screws. Other hinges are fitted without screws using a snap-in-place mechanism.

Install all doors before drilling holes for handles etc.

All doors are supplied with prefitted buffers to ensure that they close gently against frames.

## Adjustment of hinges

Doors are adjusted using the special screws in the hinge mechanism, see photographs.

Up and down – loosen the screw slightly. Push the door in the required direction and tighten.

In and out – loosen the rear screw on the hinge and pull the door in or out, then tighten the screw.

Diagonally – adjust the front adjustment screw to the required position.



**When adjustment is complete hide the screws with the covering plate.**



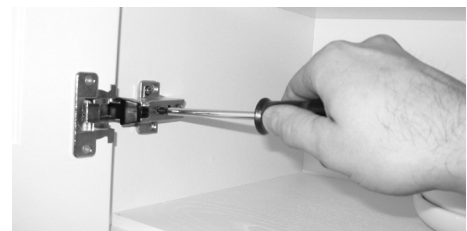
Door damper



Up and down adjustments



In and out adjustments



Diagonal adjustments



Hinges comprise two parts: a mounting plate that is fixed to the unit and a part that is attached to the door. The covering plate is included in the accessory box and is fitted when the door hinges have been assembled and adjusted.

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## Mounting Handles and Knobs

We offer a wide range of knobs and handles in various designs and lengths. There are many possibilities for individual placement, and you can also mix different handles and knobs. Handles can be mounted vertically or horizontally on doors.

For drawer fronts, horizontal mounting is always recommended.

In general, we think handles and knobs should be centered on the frame of framed doors. On flat doors, we recommend placing them approximately 40 mm from the edge, but of course there is room for your own measurements.

Check the handle's center-to-center (CC) measurement. We recommend using the included drilling template—measure the CC distance on the template and choose the preferred distance from the edge. Drill holes in the template and use it to mark where the holes should be drilled in the door. Apply masking tape to the front of the door and mark the drilling points on the tape. Drill with a 5 mm drill bit from the front of the door through the tape, and use backing support on the inside to avoid splintering.

When mounting handles and knobs on shallow drawer fronts, you may sometimes need to drill through both the drawer front and the drawer box front. For this, we offer extra-long handle screws. Another option is to mount the handle/knob on the drawer front before attaching the drawer front to the drawer box. If the back of the drawer front is completely flat, you will need to countersink the screw head into the drawer box front. If the drawer front has a frame with a panel that does not sit flush with the frame, the screw head will fit naturally between the drawer front and the drawer box front.

# C - Doors and drawers

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## Mounting drawer fronts

There are two different mounting methods depending on the cabinet door model. Drawer fronts are most easily mounted with the drawer pulled out and attached to the drawer runners.

### 1. Mounting Ramel and Liljencrantz drawer fronts

The drawer front is mounted using a recessed adjustable front shell.

The drawer is pre-drilled for 4 x M4x20 mm screws (Phillips head).

Centre the drawer front by tightening or loosening the screws. The remaining adjustment is done using the drawer runners (see assembly instructions).

### 2. Mounting other drawer fronts.

Drawer front mounted using pre-drilled screw holes.

The drawer is pre-drilled for 4 x 4.8x25 mm wood screws (Torx T25).

Tighten the screws. The remaining adjustment is done using the drawer runners (see assembly instructions).

## Protect drawer runners

All drawers are supplied with dampened drawer runners as standard.

The drawer runners are comprised of a number of moving parts. Be sure to cover the runners during assembly to prevent wood shavings and sawdust entering the runners. If any does, vacuum them thoroughly and clean them with a soft cloth before fitting the drawers in place.

### NB:

Important Do not tighten the mounting screws too tightly with the screwdriver.

The screwdriver must be set to the appropriate torque, not drilling mode.

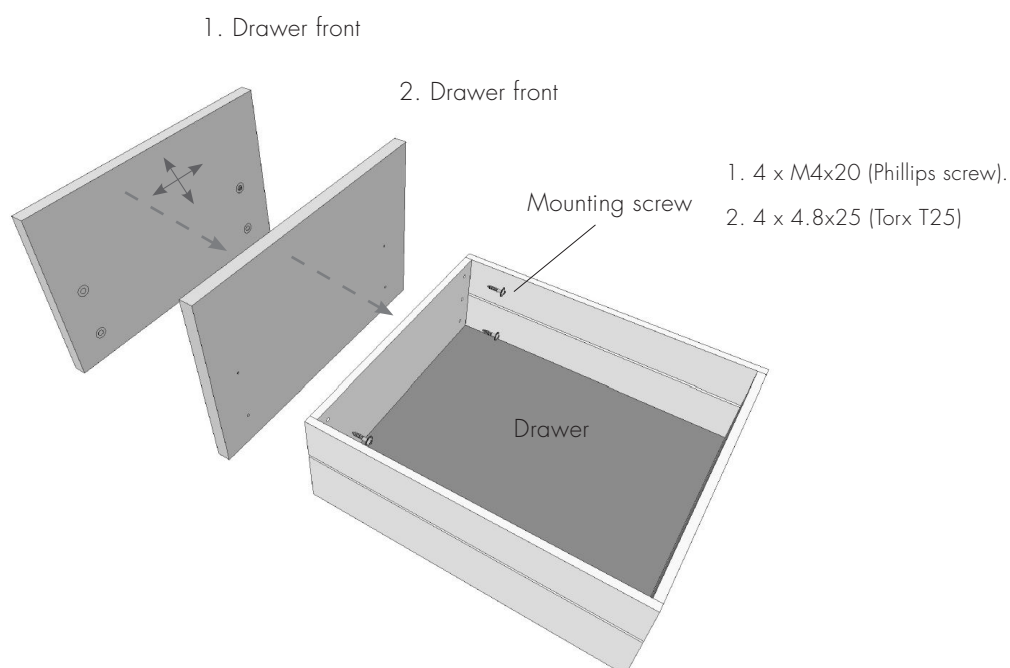
## Mounting handles/knobs

Before drilling holes for handles/knobs, consult the customer and interior designer.

Note that in some cases, the holes for the handles or knobs must pass through both the drawer front and the front section of the drawer.

The handles are fitted once the drawer fronts have been mounted. Use the accompanying drilling template.

Always place a wooden block behind the back of the piece being drilled to prevent splintering.



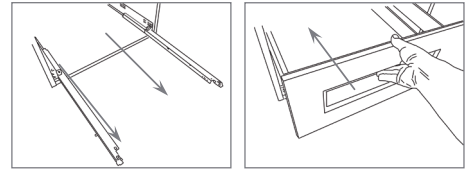
# C - Doors and drawers

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## Mounting a drawer in a unit

Pull out both of the drawer rails, check that they are clean and dust free. Place the drawer on top of the rails. Push the drawer into the unit until it locks onto both rails with an audible click.

By carefully adjusting the drawer fronts position heightwise and sideways a perfect alignment with the adjacent unit fronts and doors is achieved. When alignment is satisfactory, all fronts are fixed by tightening the screws.



# C - Doors and drawers

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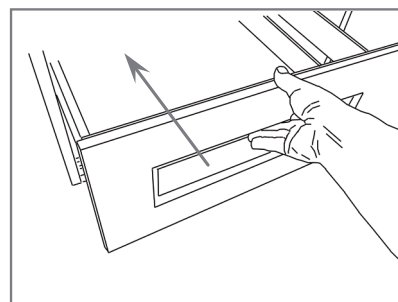
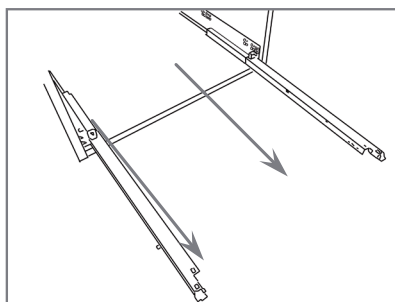
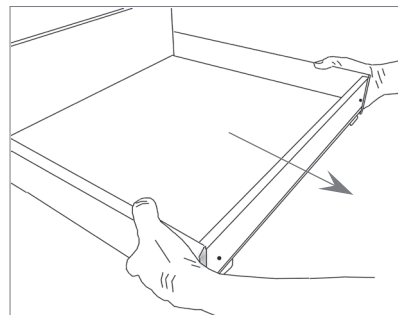
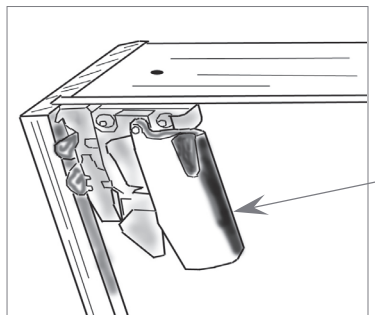
## Pull-out wast disposal

After adjusting the door, an elastic sealant should be applied between the door and drawer. Partly to seal the gap and protect from dirt, but mostly to fasten the door to the drawer firmly.

## Removal of tall drawer from unit

Removal of the tall drawer is made by pressing both the green handles underneath the drawer and at same time pulling the drawer out to the fully extended position.

In order to re-mount a drawer, pull out both rails. Put the drawer on the rails. Push the drawer into the unit until it locks onto both rails with an audible click.



# C - Doors and drawers

## Adjusting drawer front

If a drawer front is not properly aligned with the unit carcass, the drawer front can be adjusted as described in this section.

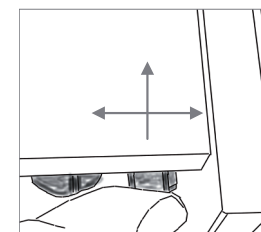
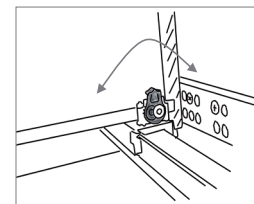
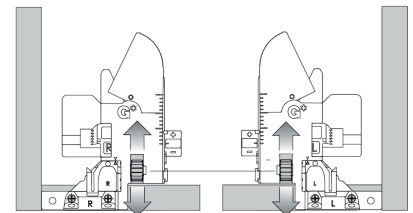
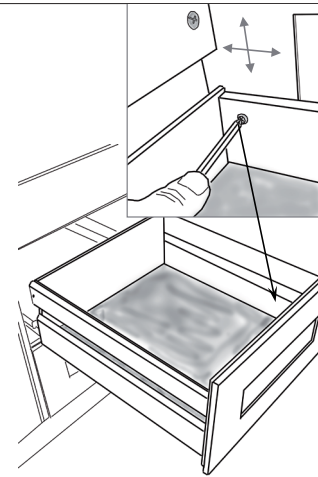
**Important!** It may be necessary to adjust both the drawer front and the drawer itself.

**Drawer front** - If the drawer is not properly positioned on the runners, first loosen both of the M4 screws on the drawer inside lightly. The screws are fastened into a threaded bushing which allows the front to be adjusted both vertically and horizontally with precision. When the drawer front is in the desired position, fasten the screws tightly again.

**Sideways** - If the drawer is not closing properly the fittings might be out of step. Adjust the lever by scrolling back and forth as shown in the picture. Start in the "0" position, i.e. set the arrows pointing towards each other. Note that the wheels shall be scrolled in the same direction, otherwise the drawer will get stuck in the runners.

**Tilting the drawer** - At the drawer back end there is a green lever. By turning this lever to either side the drawer's back end can be raised or lowered.

**Adjustment up and down** - At the front end of the drawer there is a green lever. By first pressing the lever upwards and then turning the lever to either side, the drawer's front end can be raised or lowered.



# D - Worktops

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## General points

Worktops are supplied in a large number of different materials and designs. Make sure that you have read the installation and care instructions that are enclosed with the tops. Joints between different worktop materials are sealed using silicon or other elastic and durable sealant.

Worktops that are installed above dishwashers and next to hobs must to be insulated against moisture and heat. The required foil and tape is normally supplied with the worktops or appliances.



**All worktops require a certain amount of maintenance. Carefully read the instructions from each supplier.**

## Laminated worktops

If long laminated tops are required, joints will have to be made. These should not be placed near wet areas.

## Stone worktops

When fitting stone worktops it is imperative that all the base units are perfectly horizontal and level. Stone worktops that are not properly supported might break.



**Apply glue sparingly! Remember, the tops might have to be removed at some future point in time.**

Gluing of split hob cutouts and joints shall be performed according to the suppliers instructions. Be careful to finish the job properly and not to load the tops until the glue has hardened.

## Wooden worktops

Wood will expand and contract during the year and must be fixed according to the supplier's instructions, otherwise the tops might split or twist. Follow the supplier's instructions regarding maintenance.

## Stainless steel worktops

Stainless steel worktops and hob tops are normally mounted on robust wooden boards. Fix using screws and brackets.



Silicon joint between wooden worktop and adjacent stainless steel sink unit.



Split cutout for hob in a stone worktop. Note the joints between the front and rear sections and surrounding top.







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Kvånum kök AB  
Box 8  
SE-535 21 KVÄNUM

+46(0)512-79 77 00  
[info@kvanum.com](mailto:info@kvanum.com)