STYLE by CHOICE

Joinery Guide

V2 | 2021

ANMAR Group

Contents

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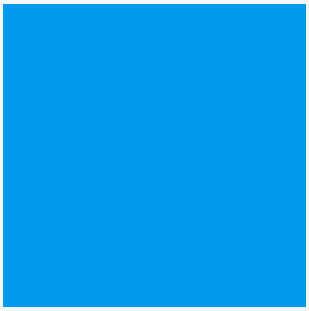
OVERVIEW

With the application of over 35 years of experience, **Style by Choice** is a guide for the Australian building and joinery industry that has been formulated by the team at Anmar Group to aid designers and manufacturers alike.

This guide enables smart design and construction of kitchens and other joinery. It can also be used as a training module for those entering the design arena, to learn the subject, its terminologies, and become confident with their design flair.

Whilst the purpose of this document is to make the designing of kitchens easier, it helps to ensure building regulations are safely met, and that the process is systematized in a user-friendly manner, right through to manufacturing. It is also intended to eliminate potential issues with incorporating appliances, handles, handle-less options, heights to ceiling, construction methods and much more.

Most of all, it promotes consistency in product design for the industry, eliminating errors or delays, and keeping prices affordable for customers.



INTRODUCTION

Glossary

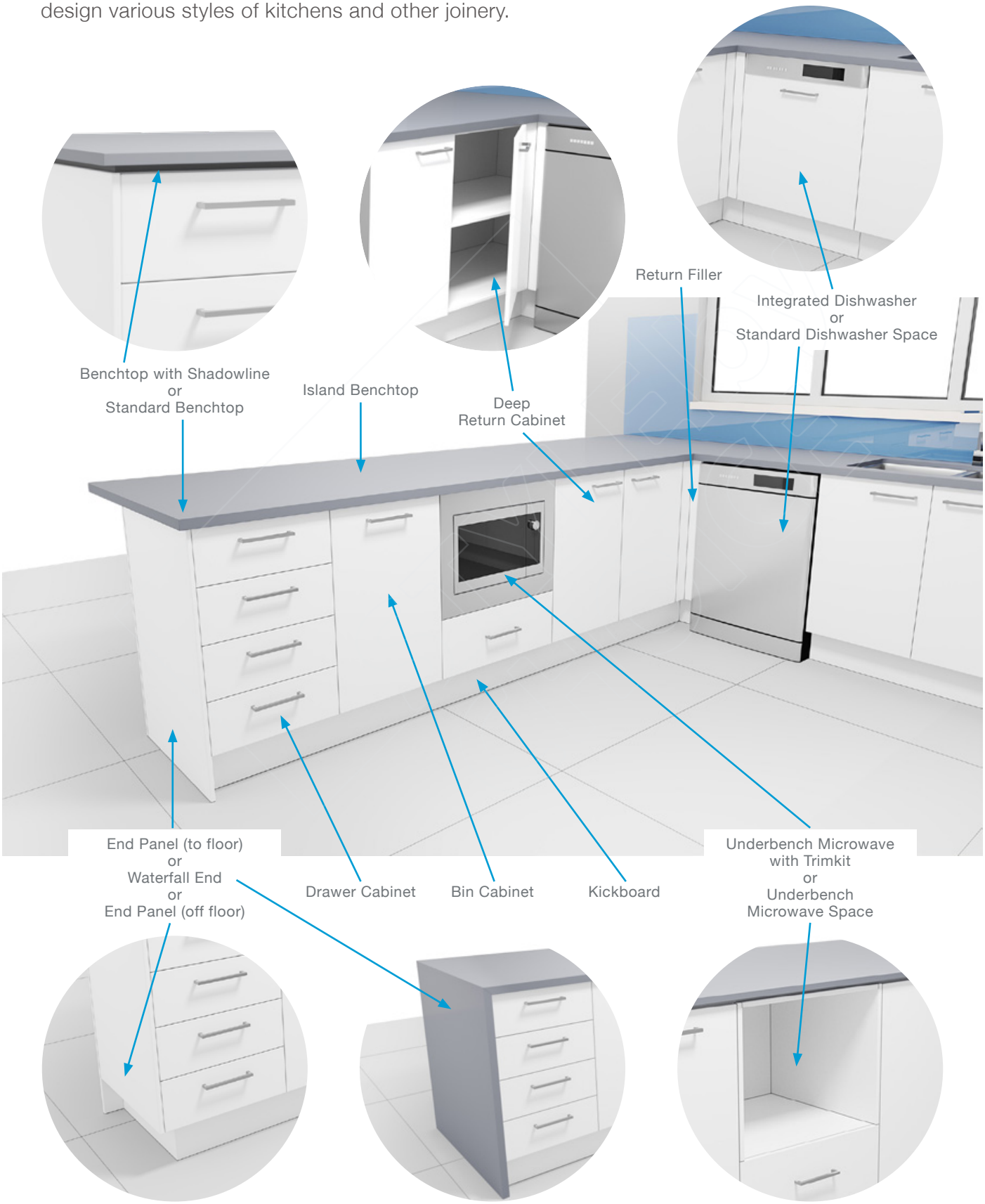
LANGUAGE FOR JOINERY

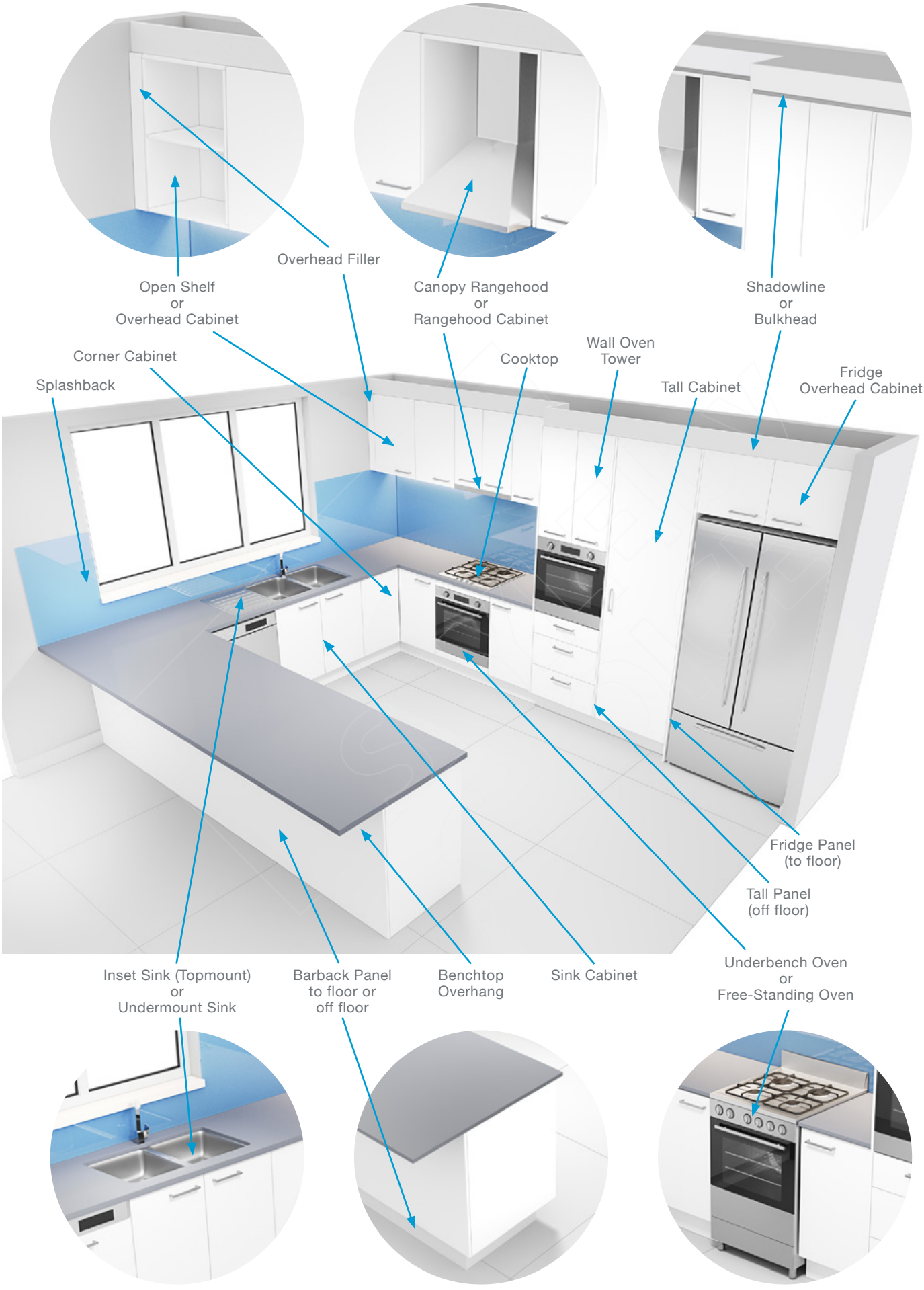
Carcase	INTERNAL - These are generally White Board boxes or the skeleton of the kitchen. They can be attached to other carcases in sequence to form a 'Wall Run' or 'Island Run' and are usually fixed/secured to a wall and/or floor.
Door Fronts & Drawer Fronts	EXTERNAL - Door Fronts and Drawer Fronts are attached to the surface of carcases using select hardware components such as hinges and drawer runners.
Panel	A Tall Panel, Base or Overhead End Panel, and Barback Panel is the decorative surface piece used to make the exposed sides of a Base or Overhead cabinet run look more appealing. Panels typically do not have a functional or structural purpose since they are added to the carcase after it is assembled. They are usually made from the same material as the Door and Drawer Fronts.
Hinge	Is a joint that holds two parts together so that one can swing relative to the other. eg. it is used to attach a door to a carcase.
Drawer Runner	Is a sliding mechanism that facilitates the opening and closing of a drawer.
Drawer Bank	Consists of 2 or more drawers stacked on top of one another. They are fixed to the carcase with hardware components called Drawer Runners, which facilitate fluid motion during opening and closing.
Soft Close Hardware	Is a smooth, silent motion feature offered in Hinges and Drawer Runners which prevent the cabinet doors and drawers slamming shut. It is also a safety feature with reduced closing speed preventing fingers from being jammed.
Kickboard / Kicker	Is a fascia that fits across the bottom of a base cabinet run. It conceals the cabinet legs and is usually made of the same material/colour/finish as the cabinet doors or a feature colour.
Benchtop / Countertop	Is a horizontal work surface that is frequently installed upon and supported by cabinets. Benchtops are available in different materials, styles and thicknesses.
Waterfall End	This is also known as a Benchtop End Panel which is usually made of the same material as the Benchtop. It is fixed vertically to the carcase at the end of a cabinet run, from the Benchtop to the floor.

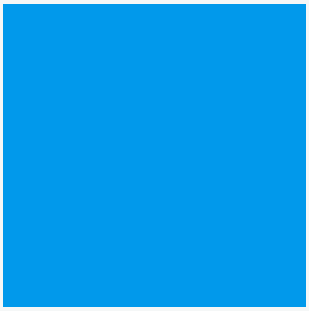
Butt Joint	Is a technique used for joining two Benchtop or Panel sections together. The two pieces of material are joined by butting their square ends together without any special shaping.
Mitre Joint	Is a technique used for joining two benchtop or panel sections together. The two pieces of material are each cut at an angle (usually at 45°) to be joined together to form a corner (usually at 90°).
Mason's Mitre Joint	Is a type of benchtop joint where two pieces of benchtop are joined at right angles, but features a small curved section at the front that appears mitred. The two edges being joined are machined to fit perfectly where one piece receives the other, forming a seamless finish.
Filler or Infill	A Tall, Base or Overhead Filler is used to fill the gap between a cabinet and the wall. It is usually made of the same material as a Door or Drawer Front.
Bulkhead	Is a fascia that encloses the gap between the top of an Overhead cabinet and the ceiling. They can be made of the same material as the Door and Drawer Fronts. MDF (Medium Density Fibre Board) or Plaster can be used, which is later painted on-site to match wall or ceiling paint colour.
Shadowline	A design detail usually applied between a Carcase and a Benchtop or between Overhead cabinets and a plaster Bulkhead. It is commonly used for aesthetics but also to prevent doors from fowling when plaster Bulkheads exceed the depth of the Overheads.
Wall Run	Is a row of cabinets designed to attach to one another in sequence, then fixed to a wall. A 'Wall Run' may have a Hotplate or a Sink. These wall runs are sometimes referred to as the 'Hot Plate Run' or the 'Sink Run'.
Island Run	Is a row of cabinets designed to attach to one another in sequence and is free-standing.
Nogging	A Nogging is a horizontal member that is placed between wall studs to provide lateral support to the wall. Joinery may sometimes be fixed directly to wall studs or noggings for support.
Stiles & Rails	Stiles are vertical sections of an outer frame of a door or drawer profile. Stiles along with top and bottom rails make up an outer frame.

Kitchen Components

Kitchens are made up of a variety of components to accommodate different functions and purposes. This guide highlights efficient methods and principles that can be used to design various styles of kitchens and other joinery.




Overhead Filler
Open Shelf
or
Overhead Cabinet
Canopy Rangehood
or
Rangehood Cabinet
Shadowline
or
Bulkhead
Corner Cabinet
Splashback
Cooktop
Wall Oven
Tower
Tall Cabinet
Fridge
Overhead Cabinet
Fridge Panel
(to floor)
Tall Panel
(off floor)
Inset Sink (Topmount)
or
Undermount Sink
Barback Panel
to floor or
off floor
Benchtop
Overhang
Sink Cabinet
Underbench Oven
or
Free-Standing Oven

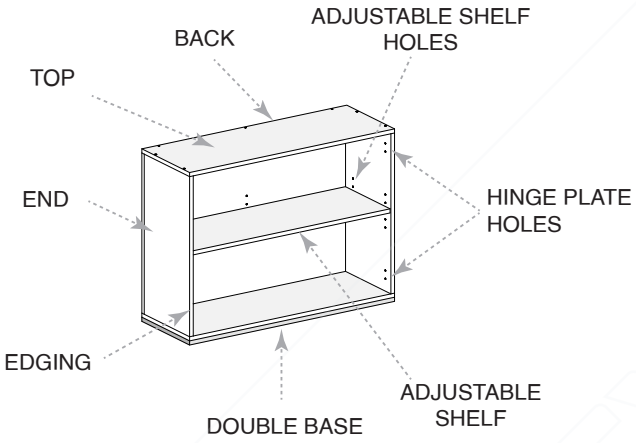


Cabinet Components

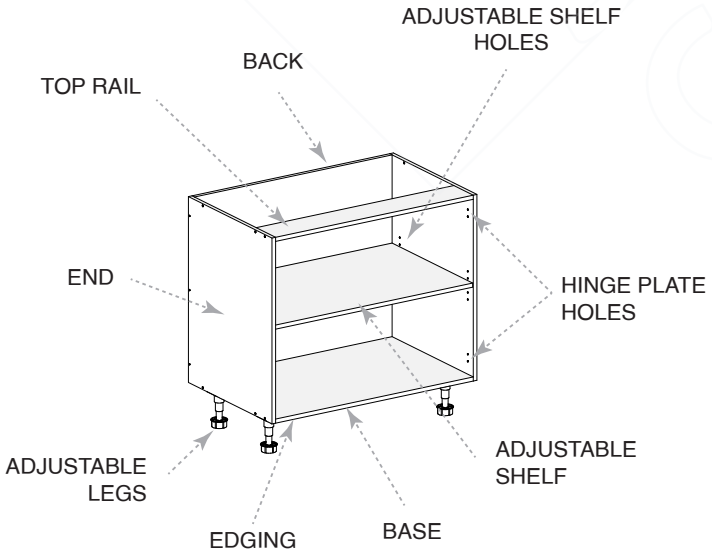
Standard carcases are made from 16mm white High Moisture Resistant (HMR) particle board.

Each base carcase is drilled for adjustable legs to assist with fast and accurate installation on uneven floors.

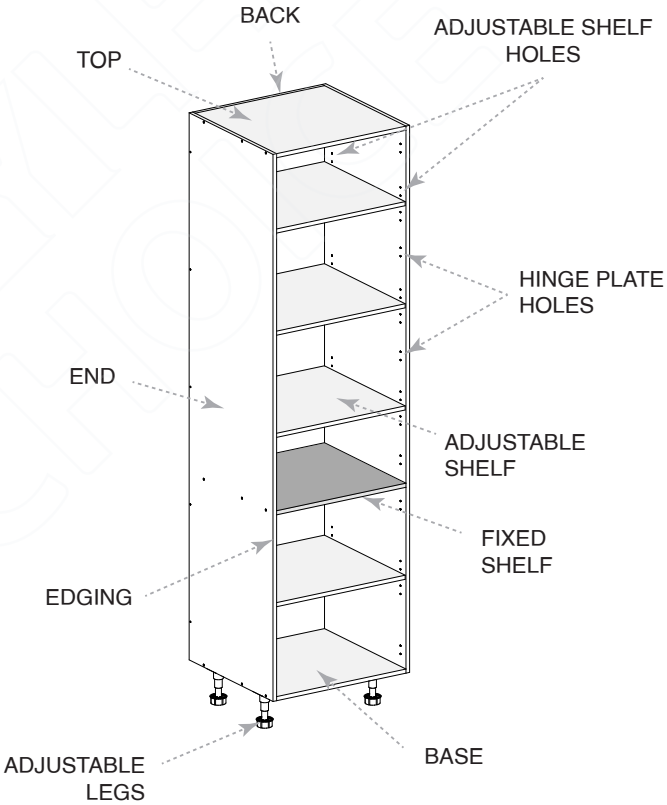
OVERHEAD



BASE



TALL



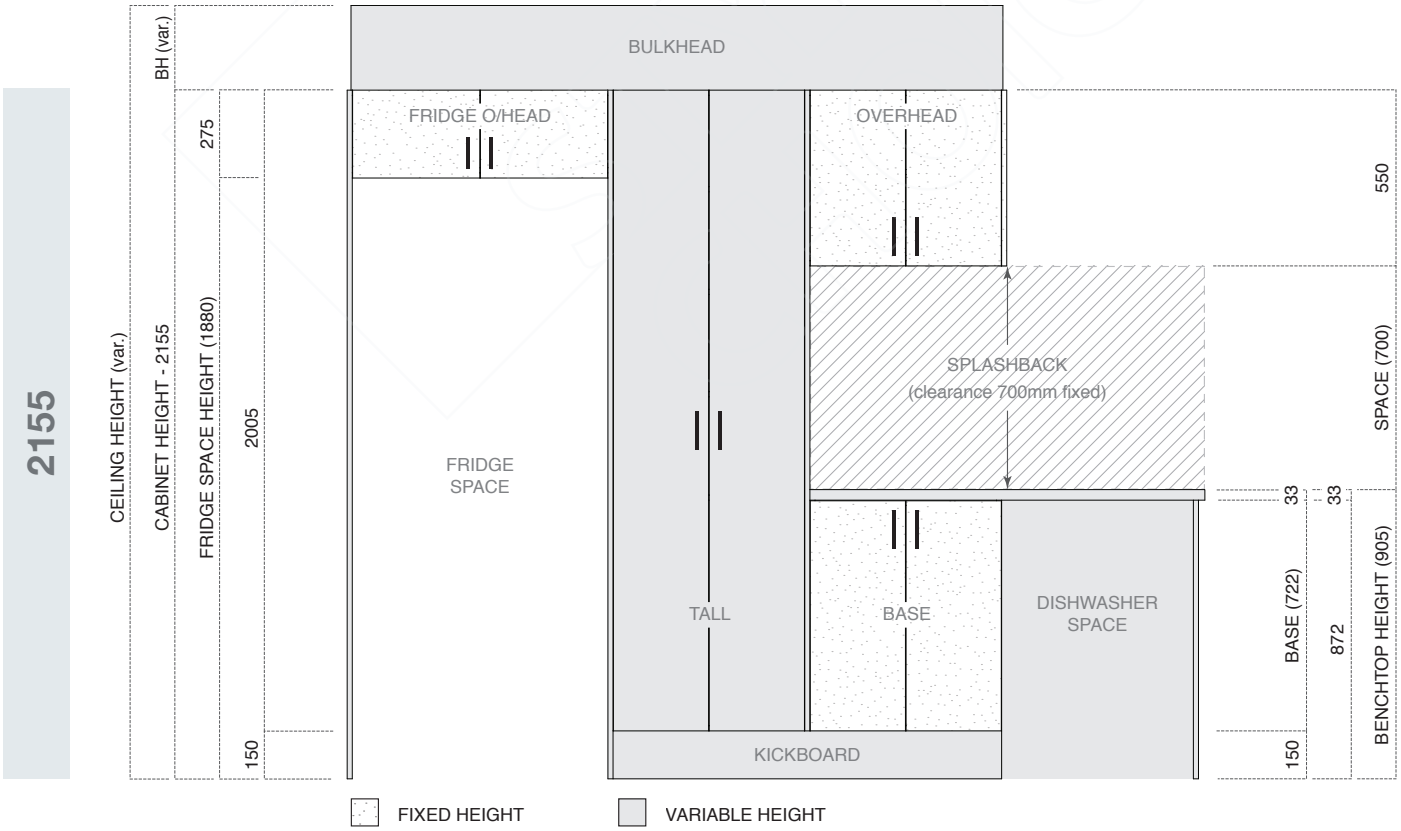
Heights Guide

In kitchen design, the ceiling height dictates the overall cabinet height. Three overall cabinet heights have been selected to conform to various Australian ceiling heights, while maintaining set heights for cabinets.

There are 3 Overall Cabinet Height options	2155	2275	2395
Overhead Cabinet Heights	550	670	790
Fridge Overhead Heights	275	395	515

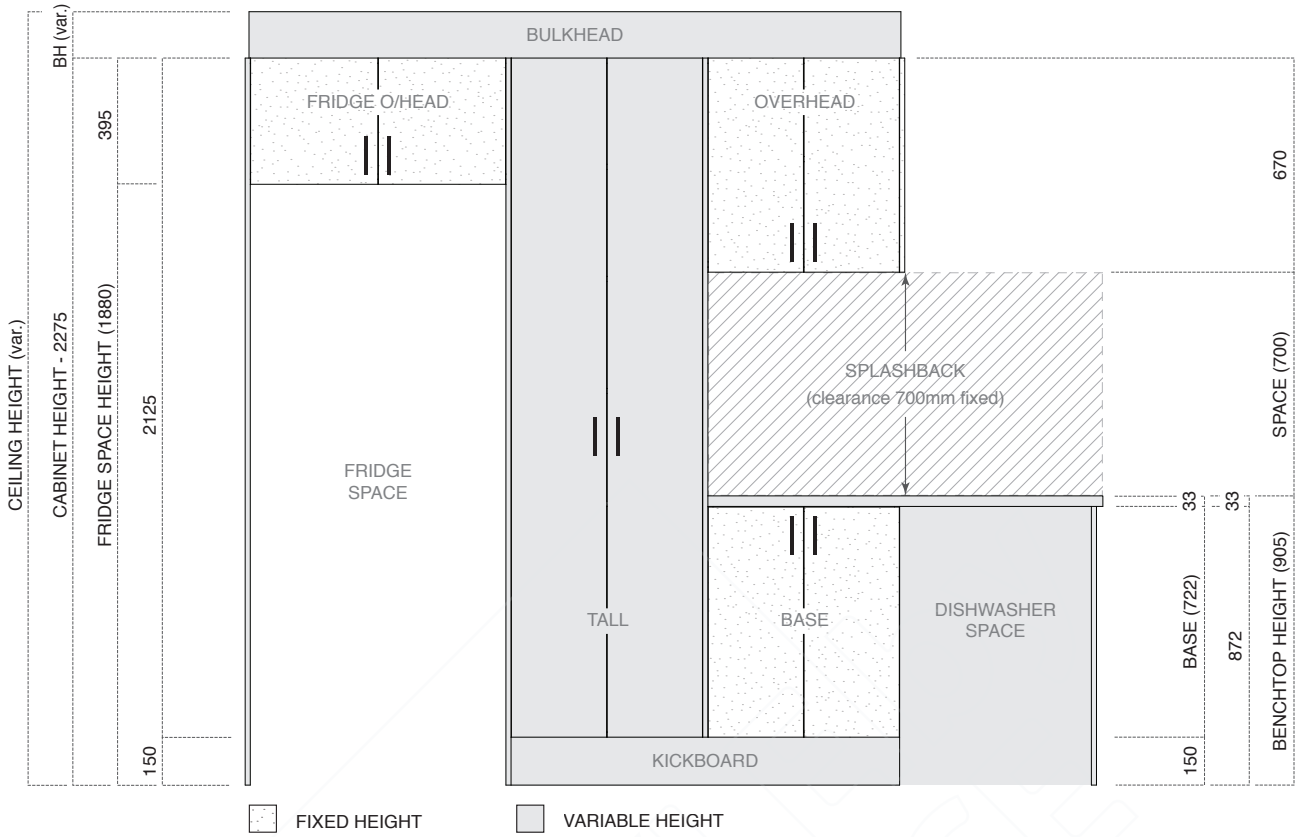
Refer to the Overall Cabinet Height illustrations shown.

Design Note:
Fixed 700mm clearance between benchtop and overheads to suit regulations.

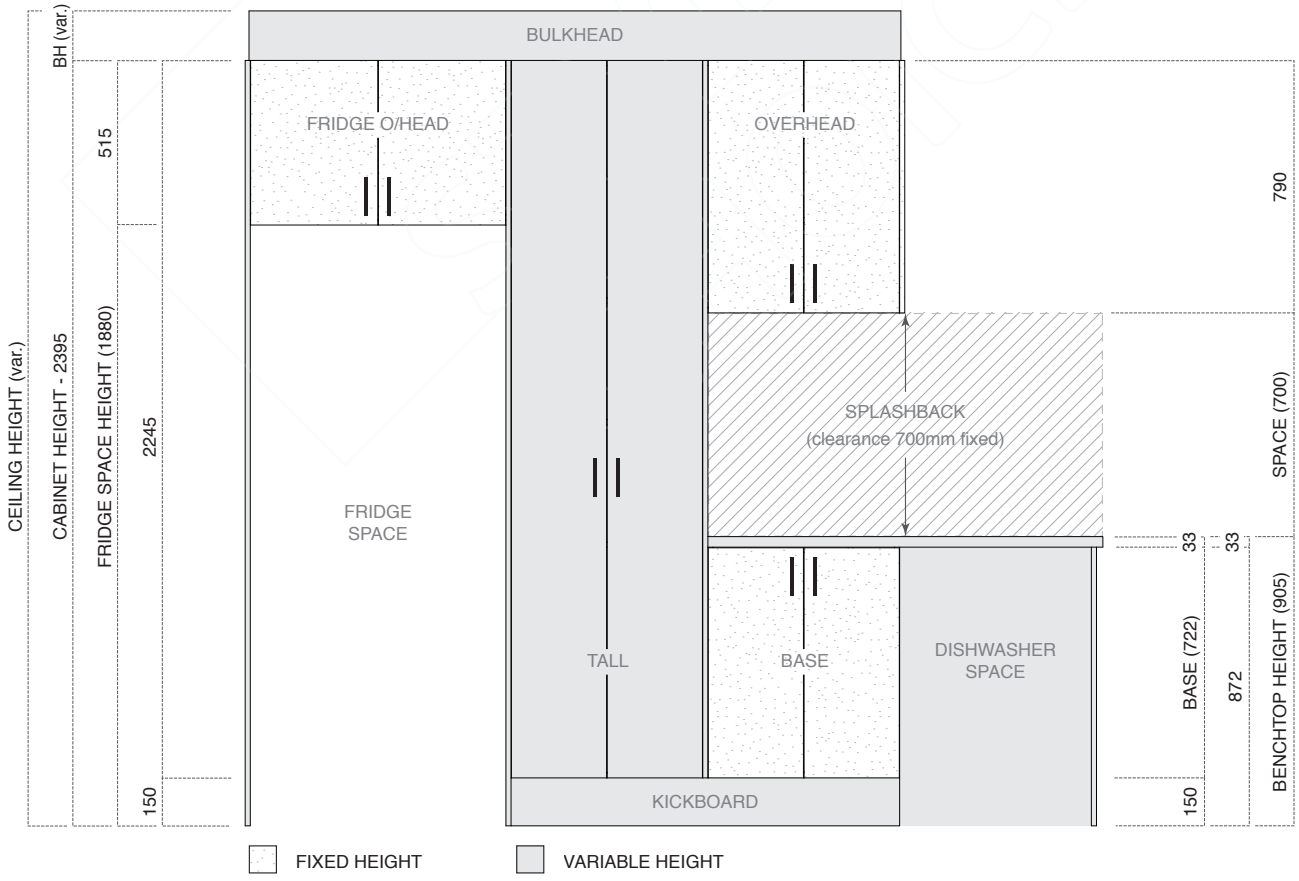


Design Note:
This is a general overview of our Cabinet Heights, Widths and Depths.

2275



2395



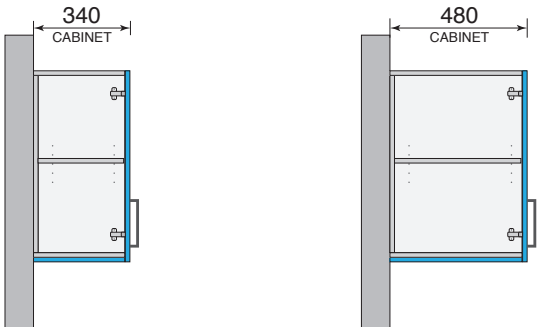
Design Note:
This is a general overview of our Cabinet Heights, Widths and Depths.

Heights Alignment

The illustration below shows how a selection of cabinets can contribute to these overall heights and how drawers can be aligned with each other to create an aesthetically pleasing design.

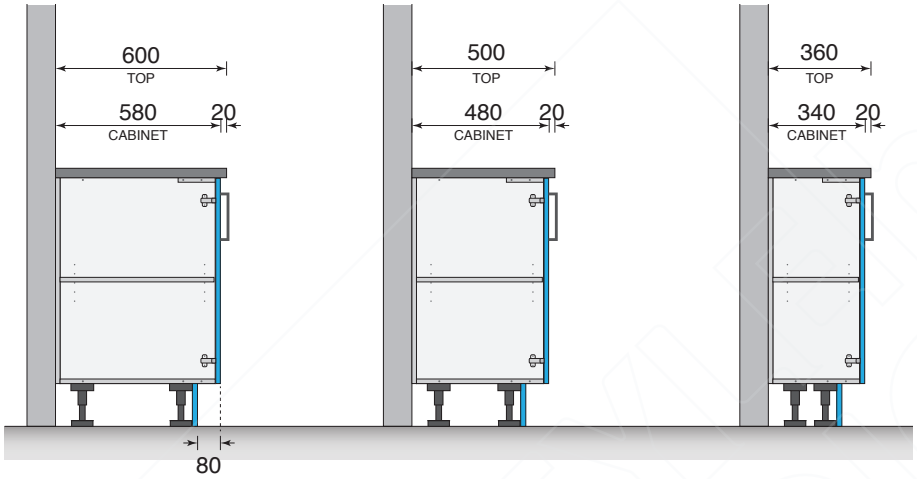
Depths Guide

OVERHEAD

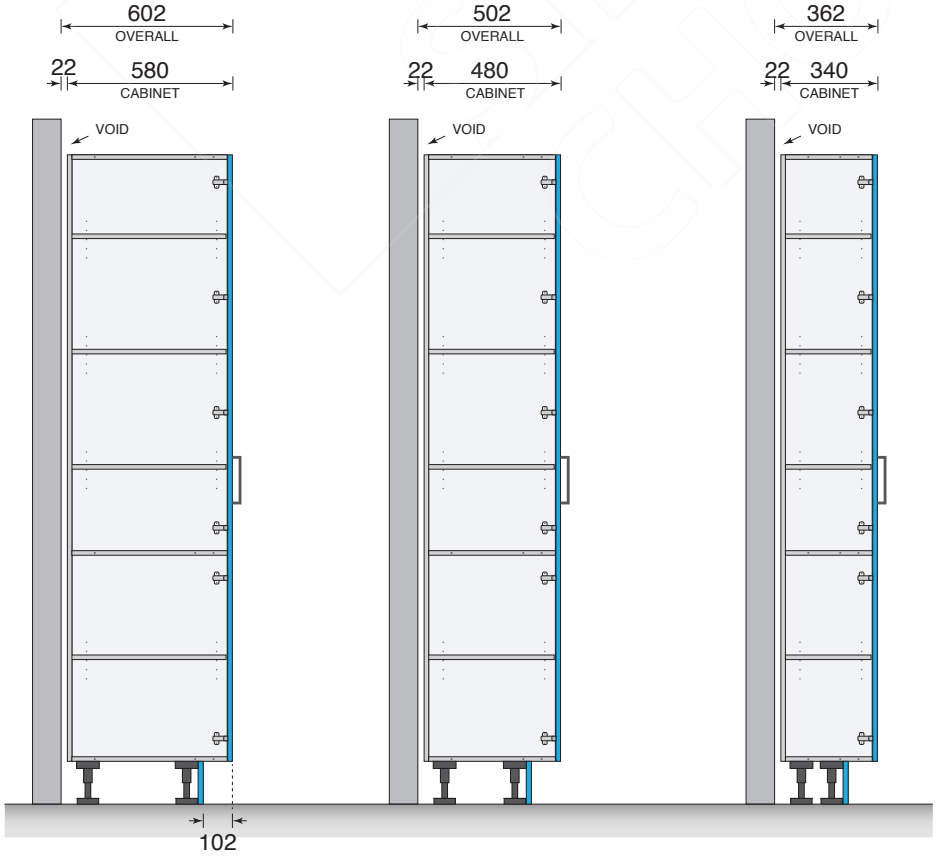


Design Note:
In cases where sinks and hotplates are used with handle-less cabinets, a smaller 4mm overhang (flush-look) is required.

BASE



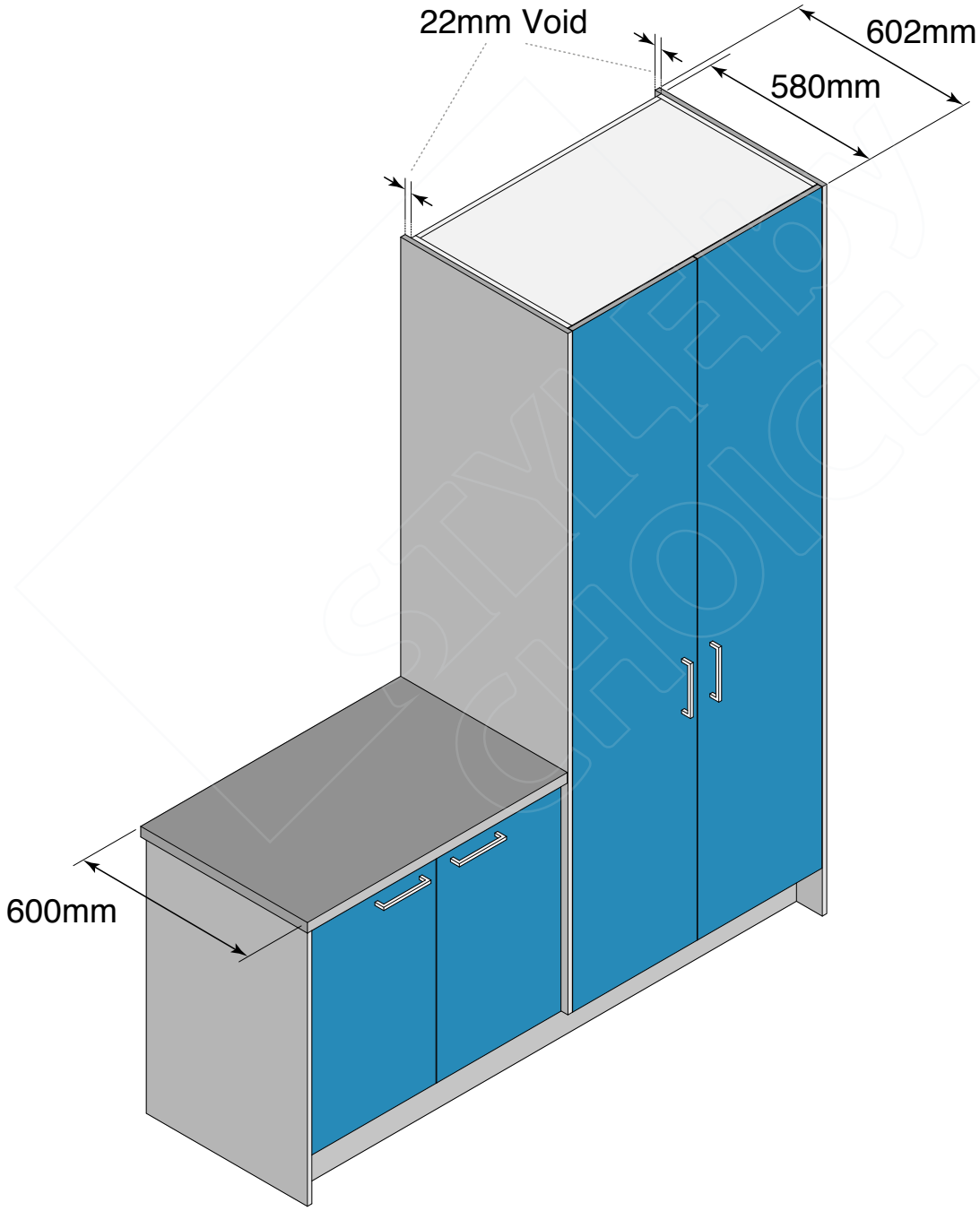
TALL

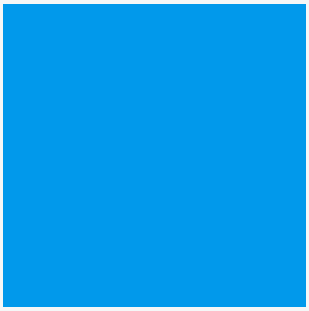


TALL CABINETS WITH VOIDS

Tall cabinets next to benchtops must sit at least 2mm proud of the front of the benchtop.

In order to suit a 600mm deep benchtop, a 22mm void can be used at the back of a 580mm deep tall cabinet, making the total depth 602mm.



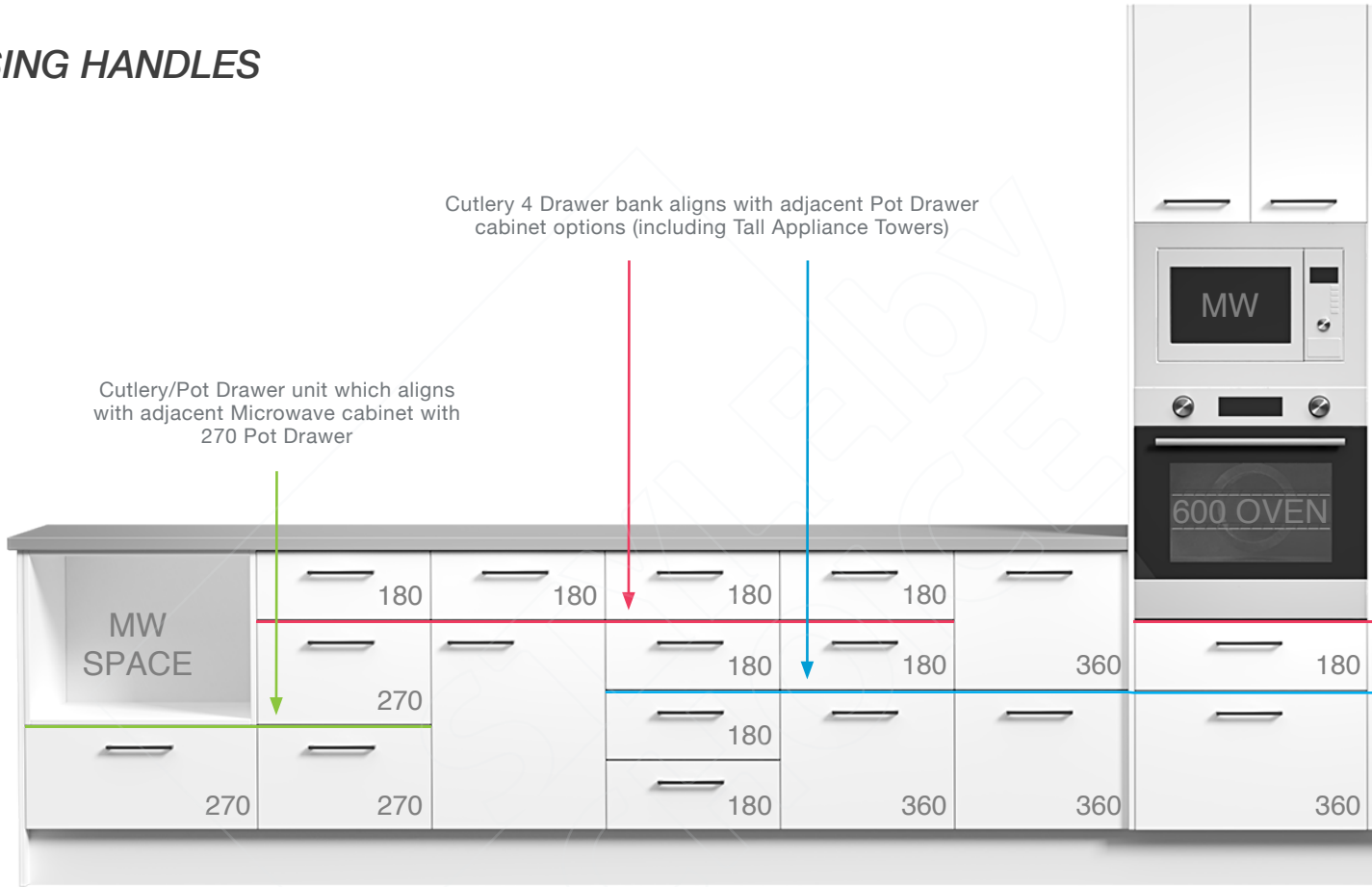


KITCHEN & BUTLER'S PANTRY DESIGN

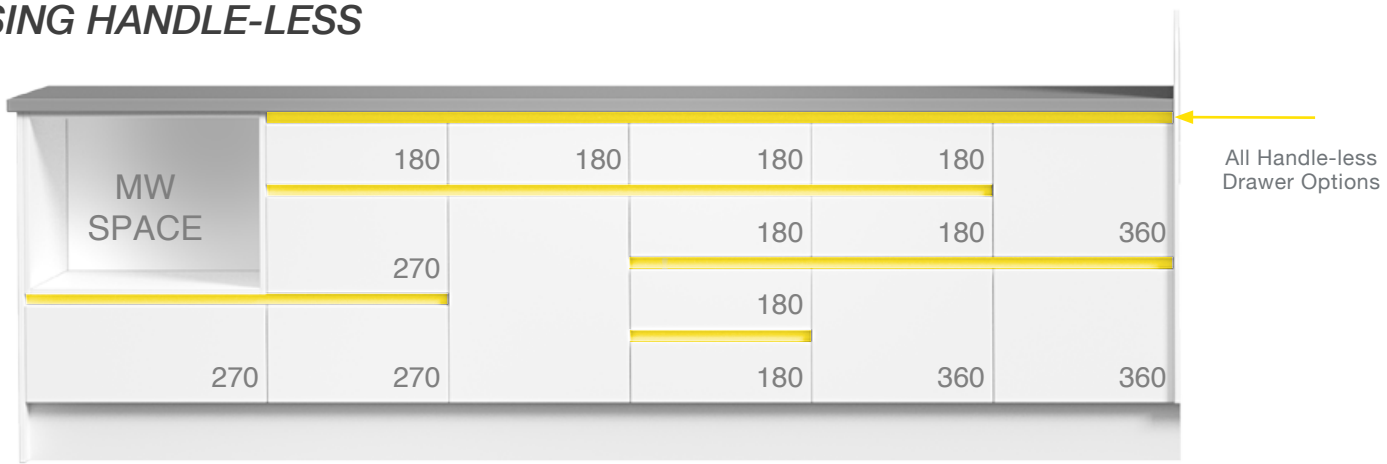
Drawer Alignment

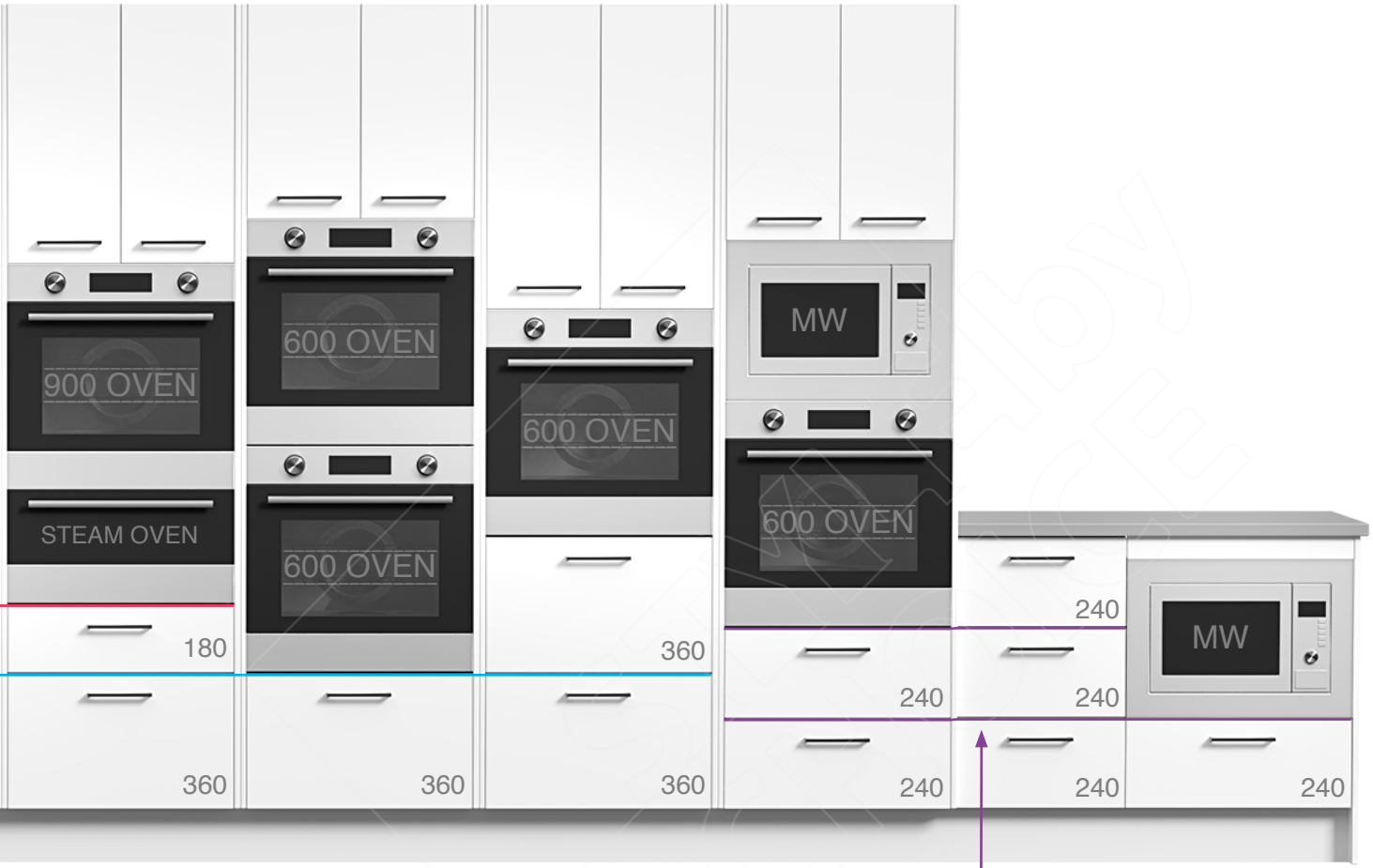
Drawer alignment is an important consideration when designing joinery. Aligning drawer options allow for ultimate flexibility and cutting-edge design, whether it is a simple handle selected or the ultra-sleek look of handle-less fronts. Below are illustrations showing how drawer heights align across the whole range of cabinets.

USING HANDLES



USING HANDLE-LESS





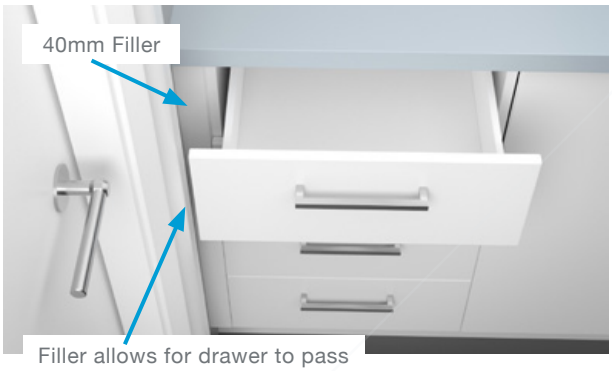
3 equal Pot Drawer unit which
aligns with adjacent Microwave cabinet and
Tall Appliance Tower with 240 Pot Drawer

Void Spaces & Fillers

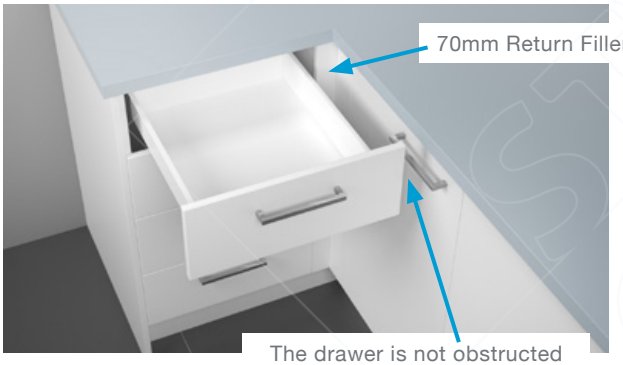
Void spaces and 'Filler panels' (or 'fillers'), are necessary to align cabinets and achieve a seamless finish when walls are out of level and corners not at 90 degrees. Fillers are to be between 30mm and 50mm in size, with 40mm being the optimum size that will allow for functional design in all situations.

Below are common examples of why fillers are required.

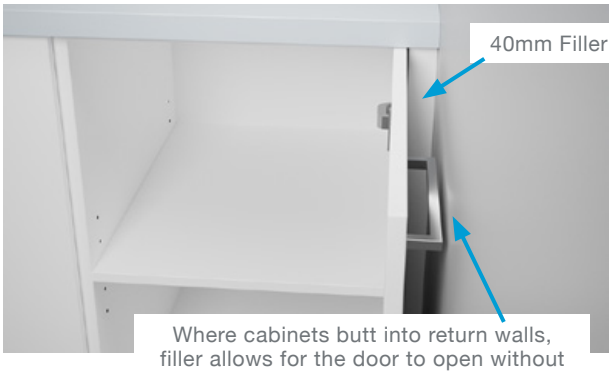
DO'S



Filler allows for drawer to pass by architrave around door.

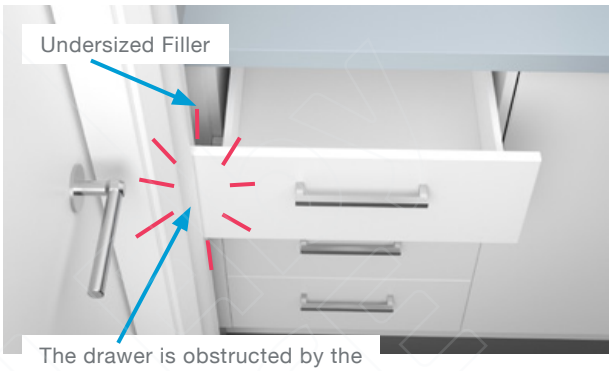


The drawer is not obstructed by door handle on adjoining cabinet and can fully open because the filler is wider.

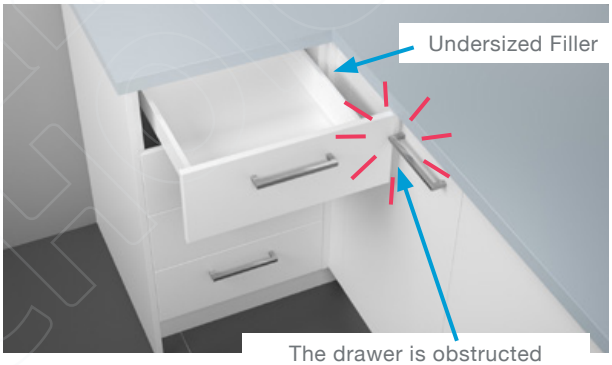


Where cabinets butt into return walls, filler allows for the door to open without the handle hitting or damaging the wall. We recommend 40mm in this situation.

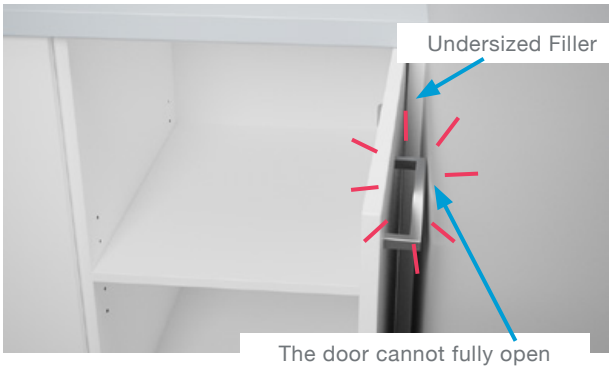
DON'TS



The drawer is obstructed by the architrave and cannot fully open because the filler is too narrow.

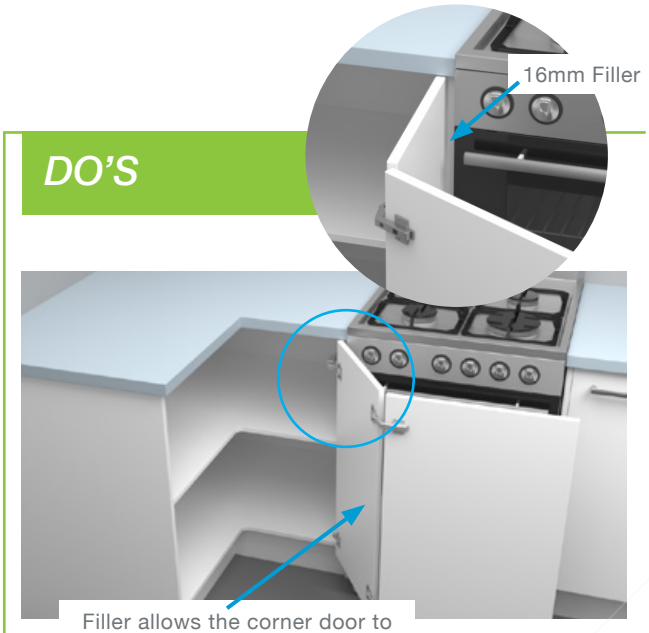


The drawer is obstructed by door handle on adjoining cabinet and cannot fully open because the filler is too narrow.

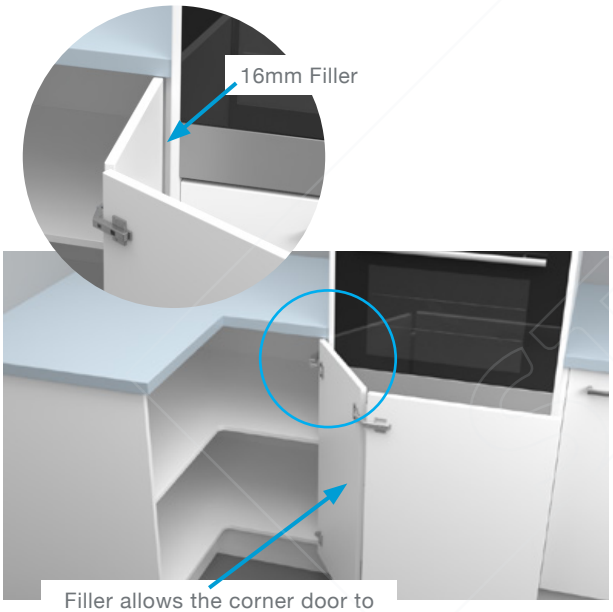


The door cannot fully open because the filler is too narrow.

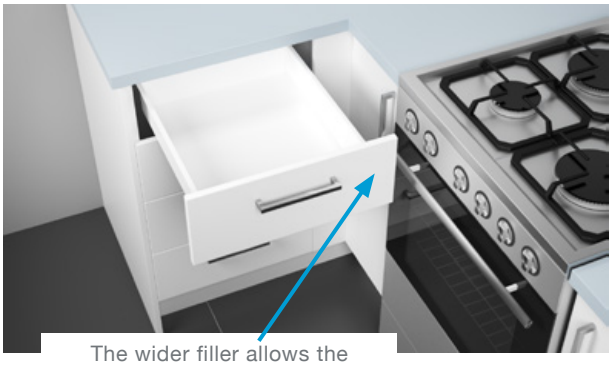
DO'S



Filler allows the corner door to open fully, without obstruction.

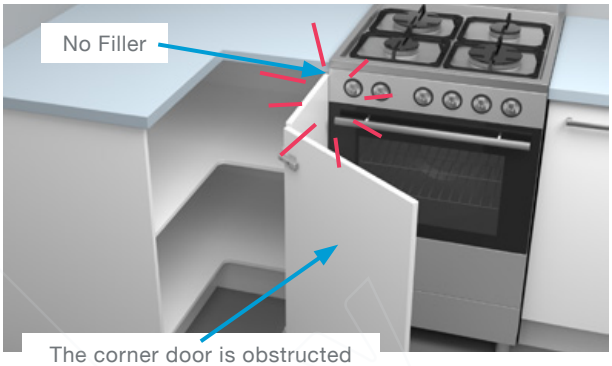


Filler allows the corner door to open fully, without obstruction.



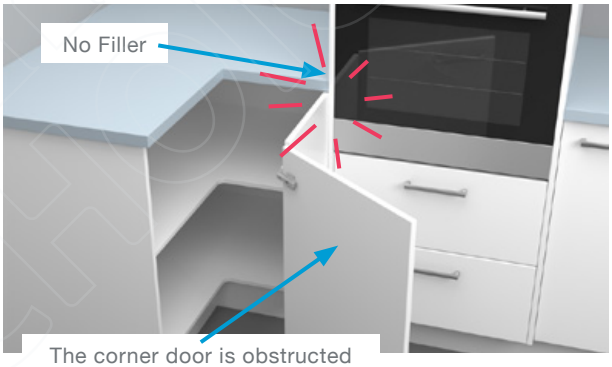
The wider filler allows the drawer to open fully, without obstruction.

DON'TS

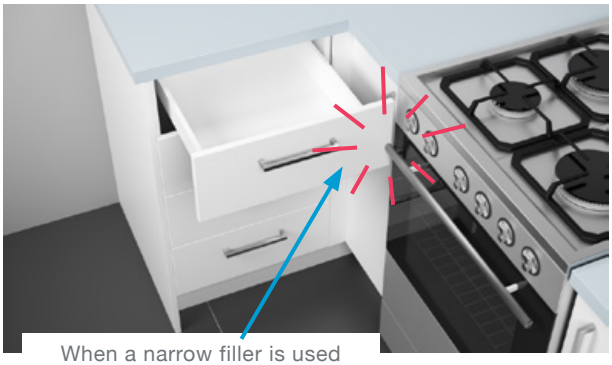


The corner door is obstructed by the upright stove, limiting access to the cabinet.

Design Note:
This scenario applies to fridge panels and pantries.



The corner door is obstructed by the wall oven tower, limiting access to the cabinet.



When a narrow filler is used the drawer is obstructed by the upright stove, limiting access.

Void Spaces & Fillers

DO'S

Opening door clears fridge as return panel is deep enough.

When placing return cabinets next to appliances such as fridges, the return panel must be deep enough so that a fully open door clears the appliance. It is recommended that the return panel be at least 50mm deeper than the fridge (including handle).

DON'TS

Opening door hits the fridge due to return panel not being deep enough.

Standard return panels are 650mm deep. If placed next to a deeper fridge, doors are obstructed by the fridge doors or handles.

Handle Options

BASE CABINETS

Doors and drawers can be configured for various looks. The below handles allow designers to employ modern and sleek styles in their designs.

STANDARD HANDLES

PUSH TO OPEN HANDLE-LESS

REVERSE BEVEL HANDLE-LESS

L SHAPE HANDLE-LESS

C CHANNEL (Aluminium Extrusion) HANDLE-LESS

OVERHEAD CABINETS

Overhead cabinets are constructed using a secondary bottom panel. This conceals the cabinet joins and fixings, giving a seamless look underneath. It also allows flexible design for handle-less finger pull option, and LED lighting at the rear of the cabinet.

HANDLE OPTIONS

WITH HANDLES

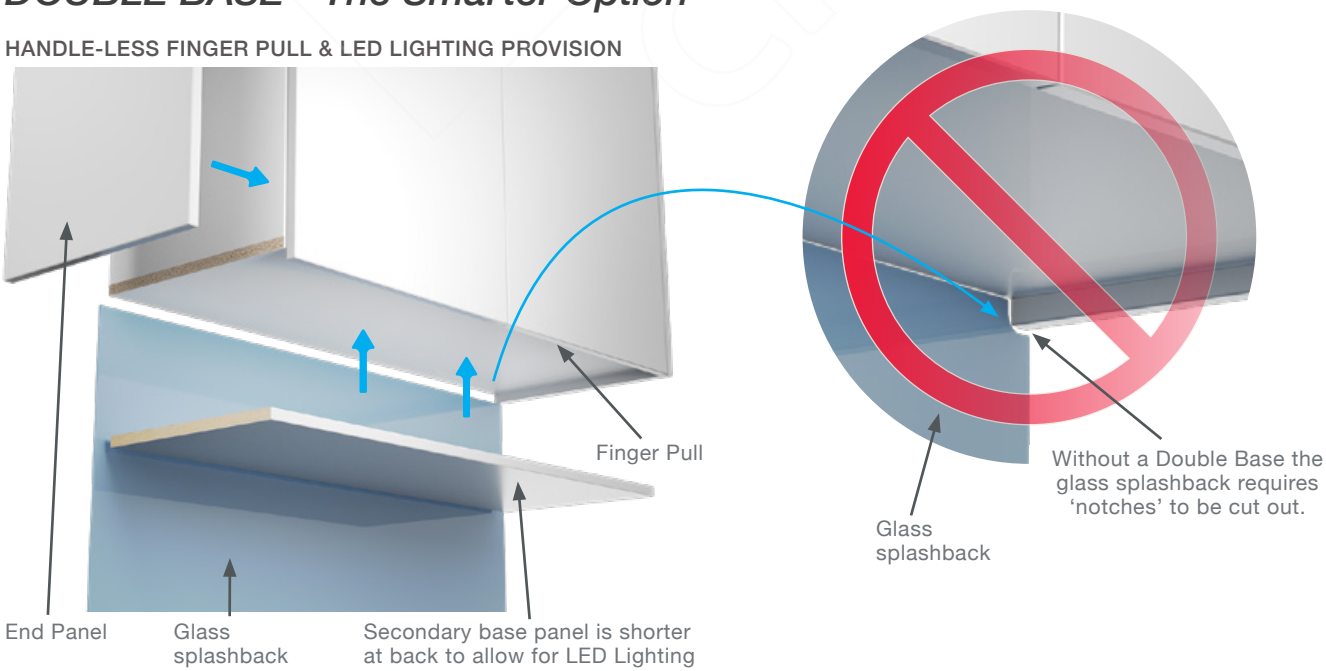
Default Double Base installation

HANDLE-LESS (DROP-DOWN DOOR)

Double Base installation with Optional LED lighting provision at 50mm from back (See Lighting Section)

DOUBLE BASE - The Smarter Option

HANDLE-LESS FINGER PULL & LED LIGHTING PROVISION

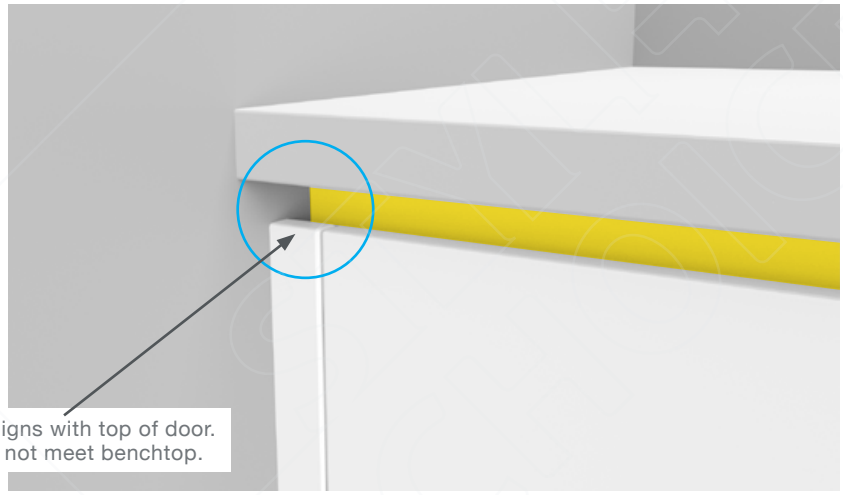


Handle Options

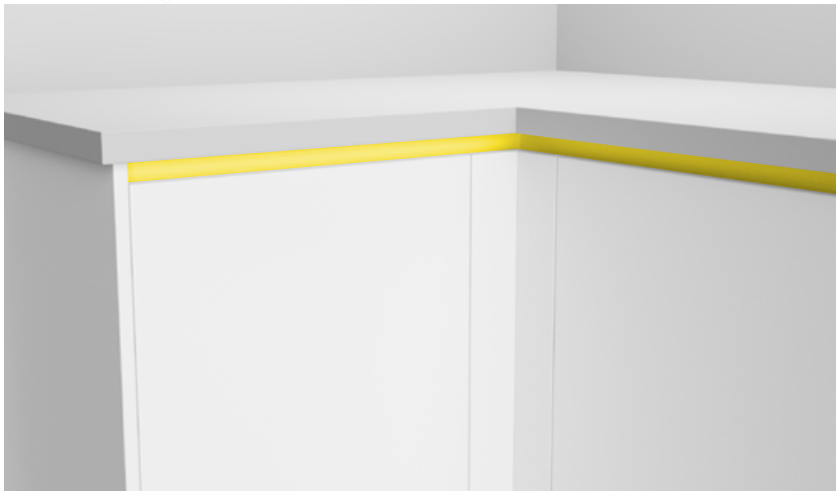
IN SITU HANDLE-LESS DESIGN DETAIL

HANDLE-LESS INTO END PANEL

WALL FILLER



HANDLE-LESS RETURN



IN SITU HANDLE-LESS DESIGN DETAIL

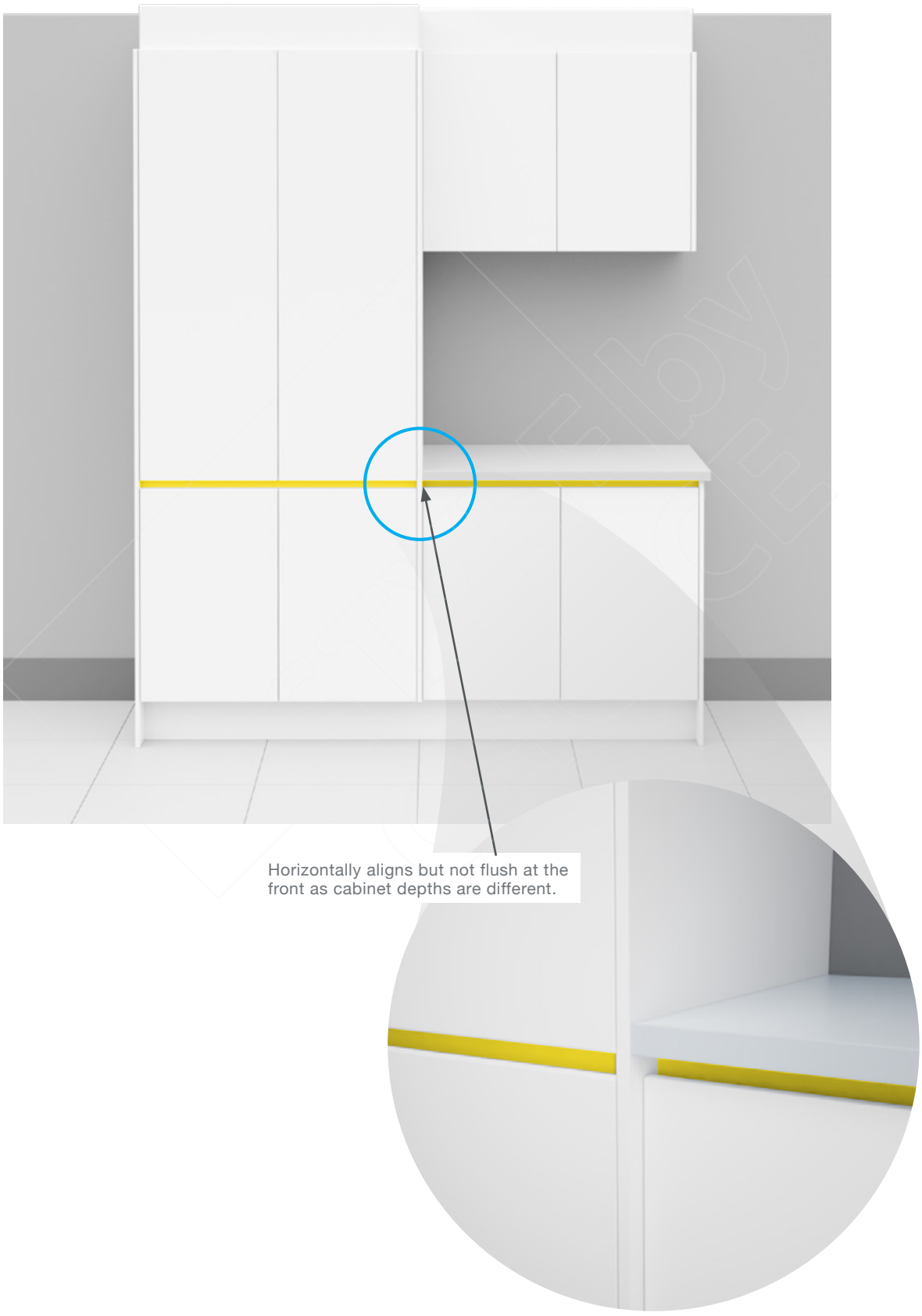
UNDERBENCH MICROWAVE - CONTINUOUS

UNDERBENCH OVEN - CONTINUOUS

Handle Options

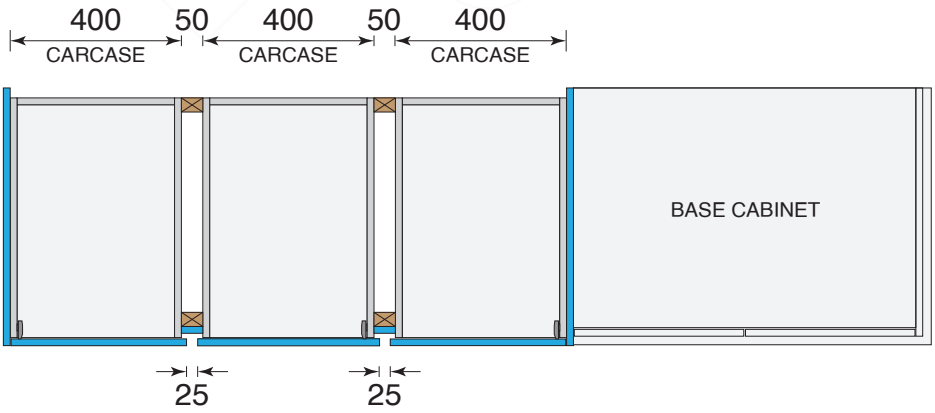
IN SITU HANDLE-LESS DESIGN DETAIL

PANTRY HORIZONTAL HANDLE-LESS



IN SITU HANDLE-LESS DESIGN DETAIL

PANTRY VERTICAL HANDLE-LESS

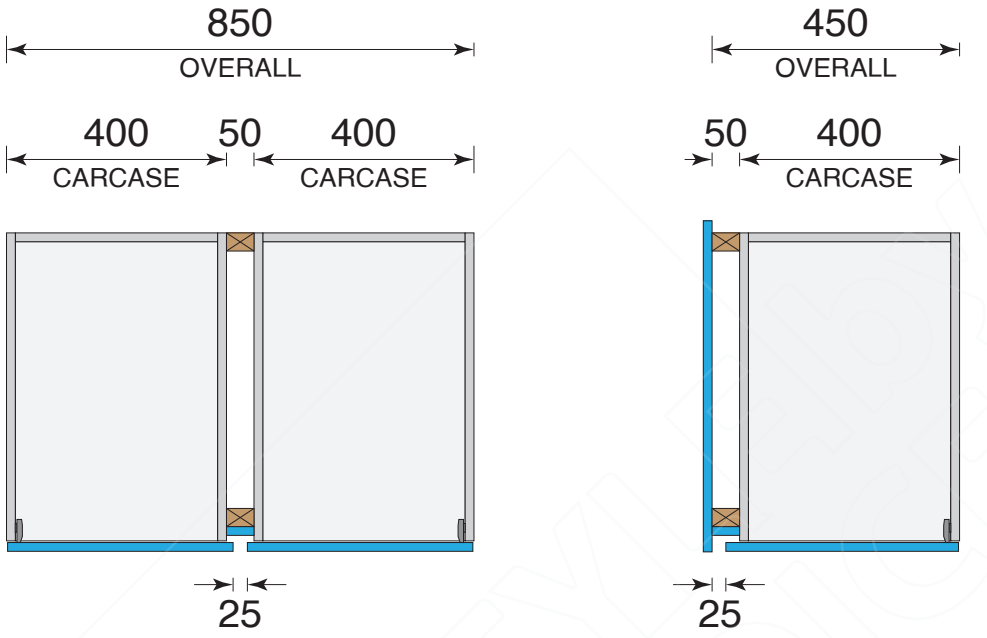


PLAN VIEW

Handle Options

PANTRY WITH VERTICAL HANDLE-LESS

The illustrations here show how to calculate overall cabinetry widths when using vertical handle-less options.



DOUBLE DOOR PANTRY

SINGLE DOOR PANTRY

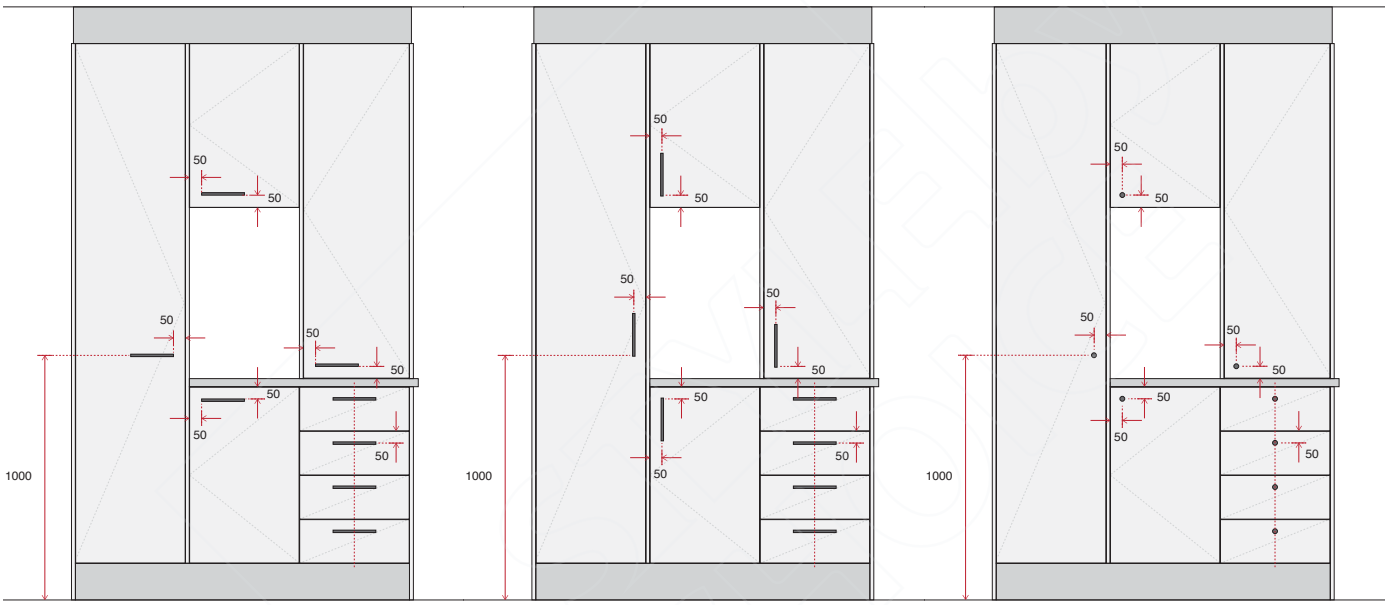
PLAN VIEW

Handle Placement

NON-PROFILED DOORS AND DRAWERS (Flat Panels)

As a standard all handles are to be installed 50mm from edges of doors and drawers.
All dimensions are to the first hole.

- Base: 50mm from the non-hinging side edge and the top edge of the door
- Overhead: 50mm from the non-hinging side edge and the bottom edge of the door
- Tall doors: 50mm from the non-hinging side edge and 1000mm up to the centre from the floor
- Drawers: horizontally centred and 50mm from the top edge of the drawer front



HORIZONTAL HANDLES | VERTICAL HANDLES | KNOBS

For doors, handles can be vertical or horizontal. Whereas drawer front handles can only be horizontal.

It is possible to have handle placements outside of this standard, however, care must be taken to ensure;

- There is enough distance from the hinging side to provide leverage to open the door
- Handles are placed at a location that is easily accessible
- Handles do not collide with adjacent joinery or structures while maintaining reasonable access to the cabinet.

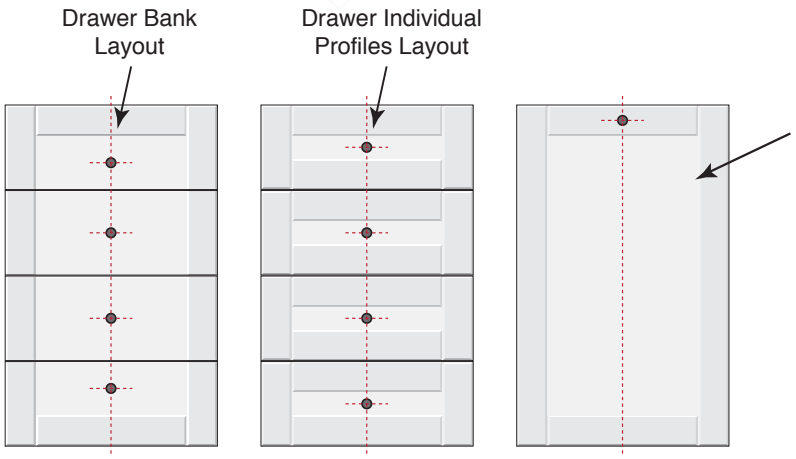
Handle Placement

PROFILED DOORS AND DRAWERS

As a standard, handles and knobs on profiled doors are to be installed on the profile frame. Drawer handles and knobs are installed on the centre panel.

- Base: centred to stile on the non-hinging side and aligned to the bottom of the top rail
- Overhead: centred to stile on the non-hinging side and aligned to the top of the bottom rail
- Tall Doors: centred to stile the non-hinging side edge and 1000mm up from the floor
- Drawers: horizontally centred to drawer front and vertically centred to internal panel of the profile

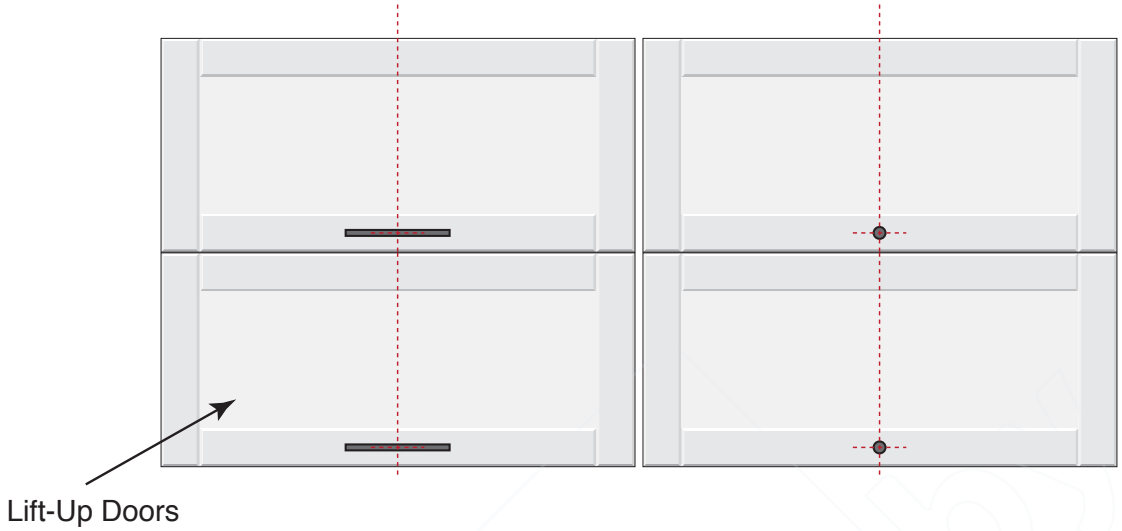
VERTICAL HANDLES | HORIZONTAL HANDLES | KNOBS



Bin cabinets and dishwasher panels: Centred to top rail and centred to door.

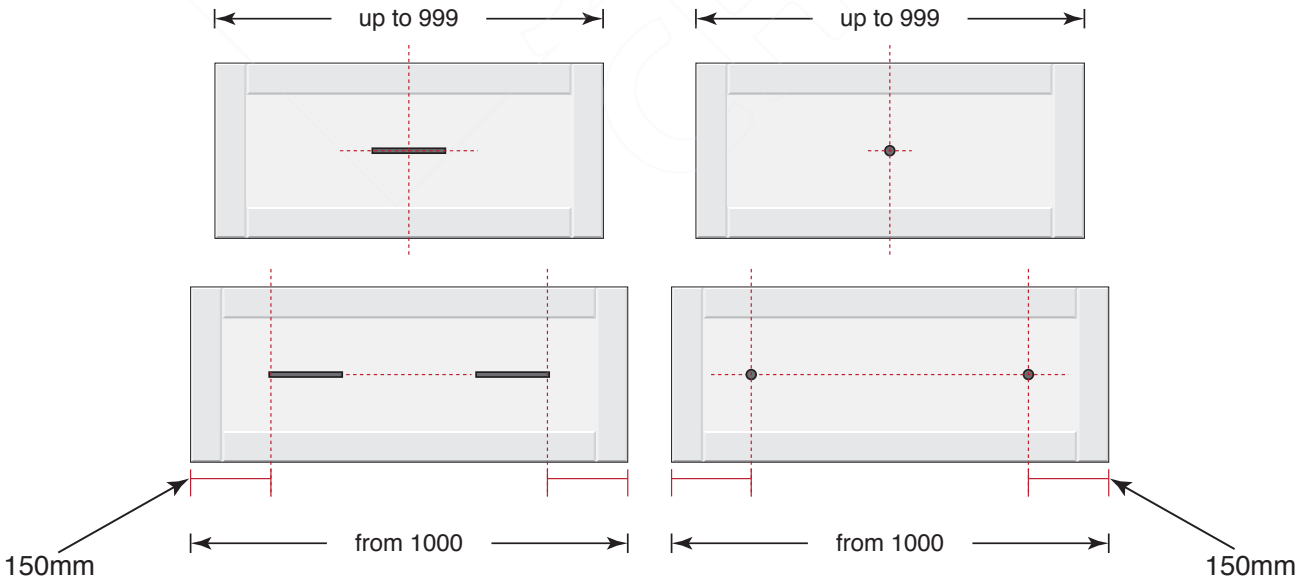
LIFT-UP DOORS

Centred to bottom rail and centred to door.



POT DRAWERS

It is recommended that drawers 1000mm and over in width have two handles or knobs for ease of use. However, if the handles are longer than 200mm, the drawer can be wider before it requires two handles and when it does have two handles, a more tailored placement maybe required.



Benchtops

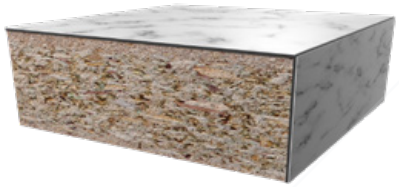
LAMINATE

Laminate benchtops are made using a HMR (High Moisture Resistant) substrate with a high-pressure laminate.

Below are sample edge profiles in 33mm.

33mm SQUARE EDGE

SQUARE EDGE

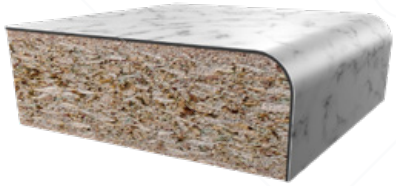


BUTT JOIN

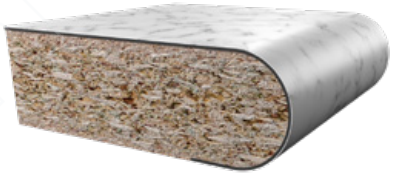
SQUARE EDGE BUTT JOIN

33mm POST FORMED

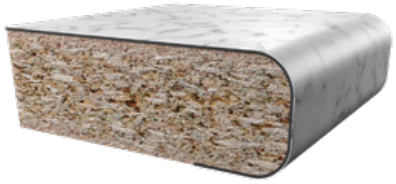
90 PROFILE



180 PROFILE



D MOULD 33mm



TIGHT MOULD 33mm

NOTE: 'TIGHT MOULD' only available in select brand colours.

QUARTZ, GRANITE & MARBLE

Stone offers 20mm, 40mm or 60mm benchtops (single or double mitre on 40mm and 60mm) with arris edge detail.

Note: Other stone benchtop profiles are also available.

	EDGE SPECIFICATION		WATERFALL END	
20mm	20mm SLAB 		WATERFALL MITRE JOIN 	WATERFALL BUTT 'V' 
40mm	40mm SINGLE MITRE 	40mm DOUBLE MITRE 	WATERFALL MITRE JOIN 	WATERFALL BUTT 'V' 
60mm	60mm SINGLE MITRE 	60mm DOUBLE MITRE 	WATERFALL MITRE JOIN 	WATERFALL BUTT 'V' 

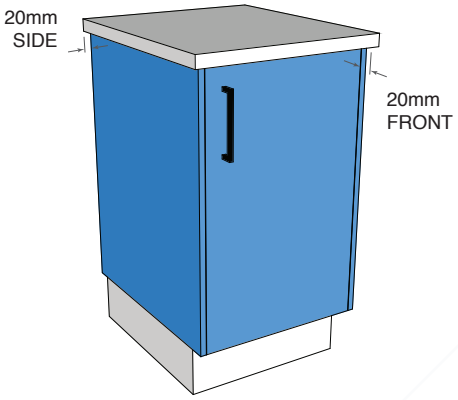
Benchtops

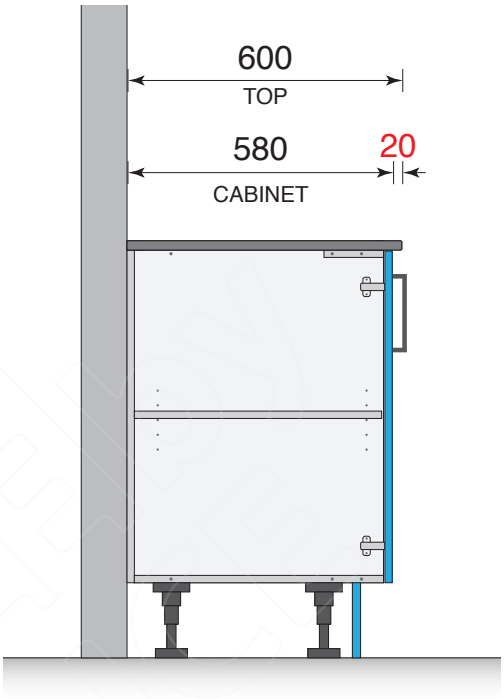
KITCHEN BENCHTOP DEPTHS

STANDARD DEPTH

The standard benchtop depth in kitchens and butler's pantries is 600mm.

STANDARD DOOR WITH 20MM FRONT AND SIDE OVERHANG

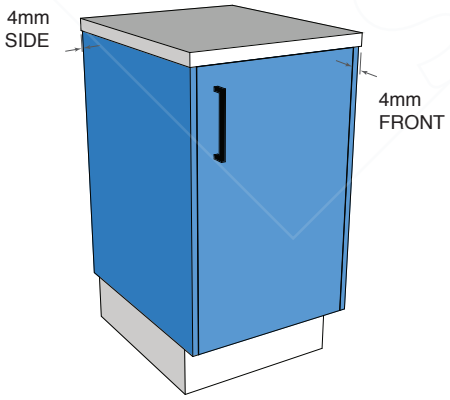


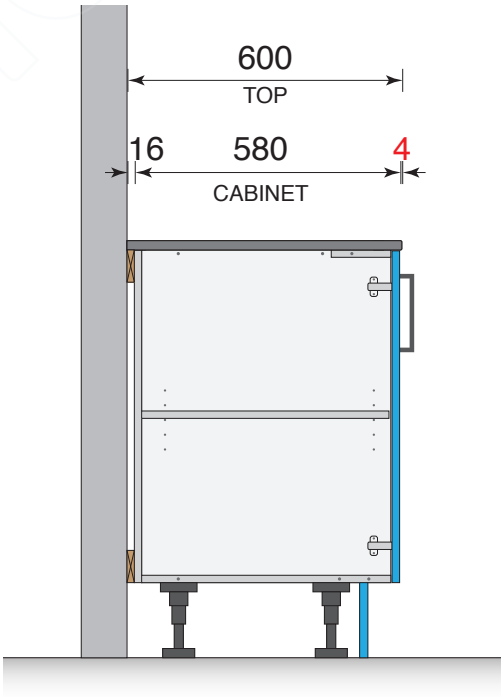


A standard Lifestyle Range base cabinet has a depth of 580mm. This depth is used with the standard 600mm benchtop to achieve a 20mm overhang.

A 20mm overhang can also accomodate benchtop edge profiles such as 180 degree rolls or D-Mould applications.

STANDARD DOOR WITH 4MM FRONT AND SIDE OVERHANG



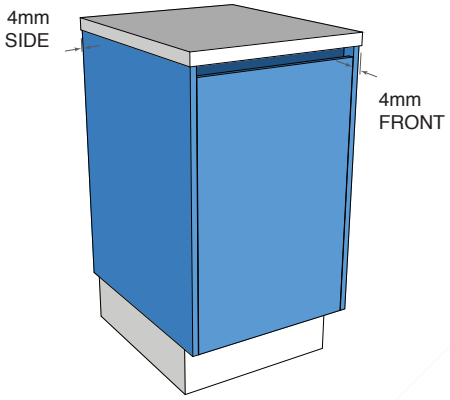


4mm overhangs give a flush-look without any drawbacks. It also incorporates the 2mm arris that comes with stone benchtops. This overhang can only be used with a square edge profile.

A benchtop overhang is always recommended to:

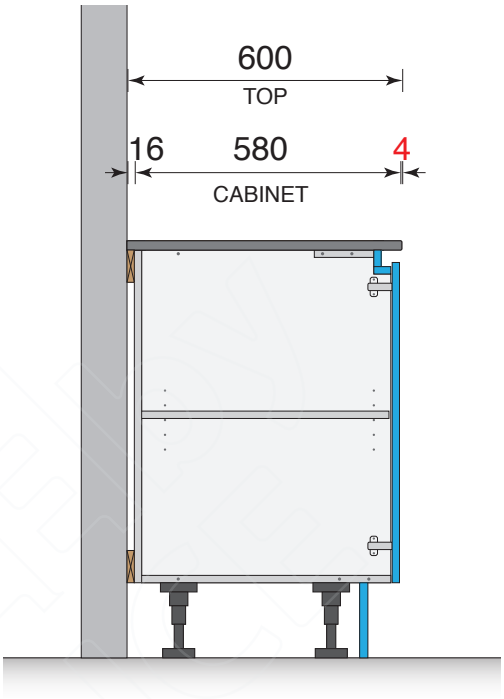
- Prevent water dripping on cabinets doors
- Allow easier benchtop cleaning, such as when sweeping crumbs off the benchtop.

HANDLE-LESS DOOR WITH 4MM FRONT AND 4MM SIDE OVERHANG



Handle-less cabinets come with a 4mm overhang to the front of the door. This keeps the design streamlined and practical.

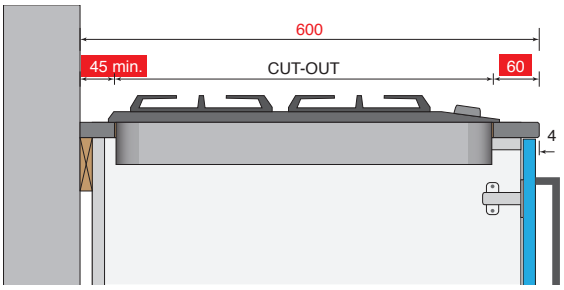
This also means that sink and hotplate positioning is consistent whether cabinets are standard or handle-less.



SINK AND HOTPLATE POSITIONING

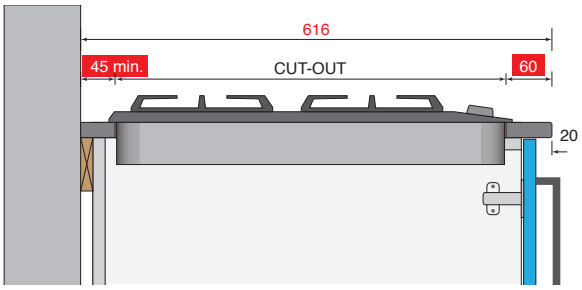
Most sinks and hotplates are approximately 500mm deep with a 480mm deep cutout and fit into a 600mm deep benchtop with 20mm overhang. However, when deeper sinks and hotplates are required, there are 2 options as outlined below. In any case, it is critical that the cutout is at least 60mm from the front and 40mm from the back of the benchtop.

OPTION 1



Standard depth benchtop, with cabinet packed out by 16mm. This leaves a 4mm overhang.

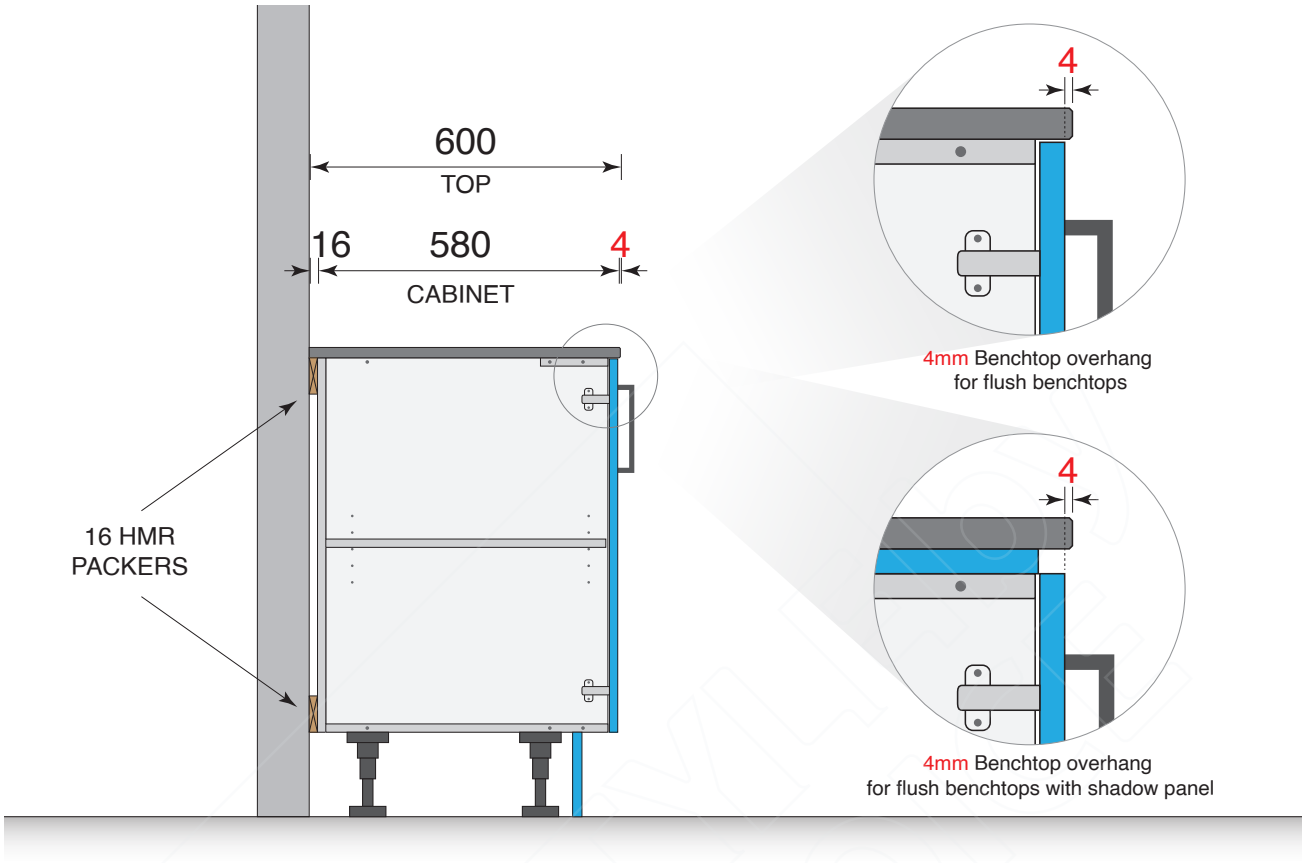
OPTION 2



616mm deep benchtop, with cabinet packed out by 16mm. This leaves a 20mm overhang.

Benchtops

FRONT OVERHANGS FOR FLUSH BENCHTOPS

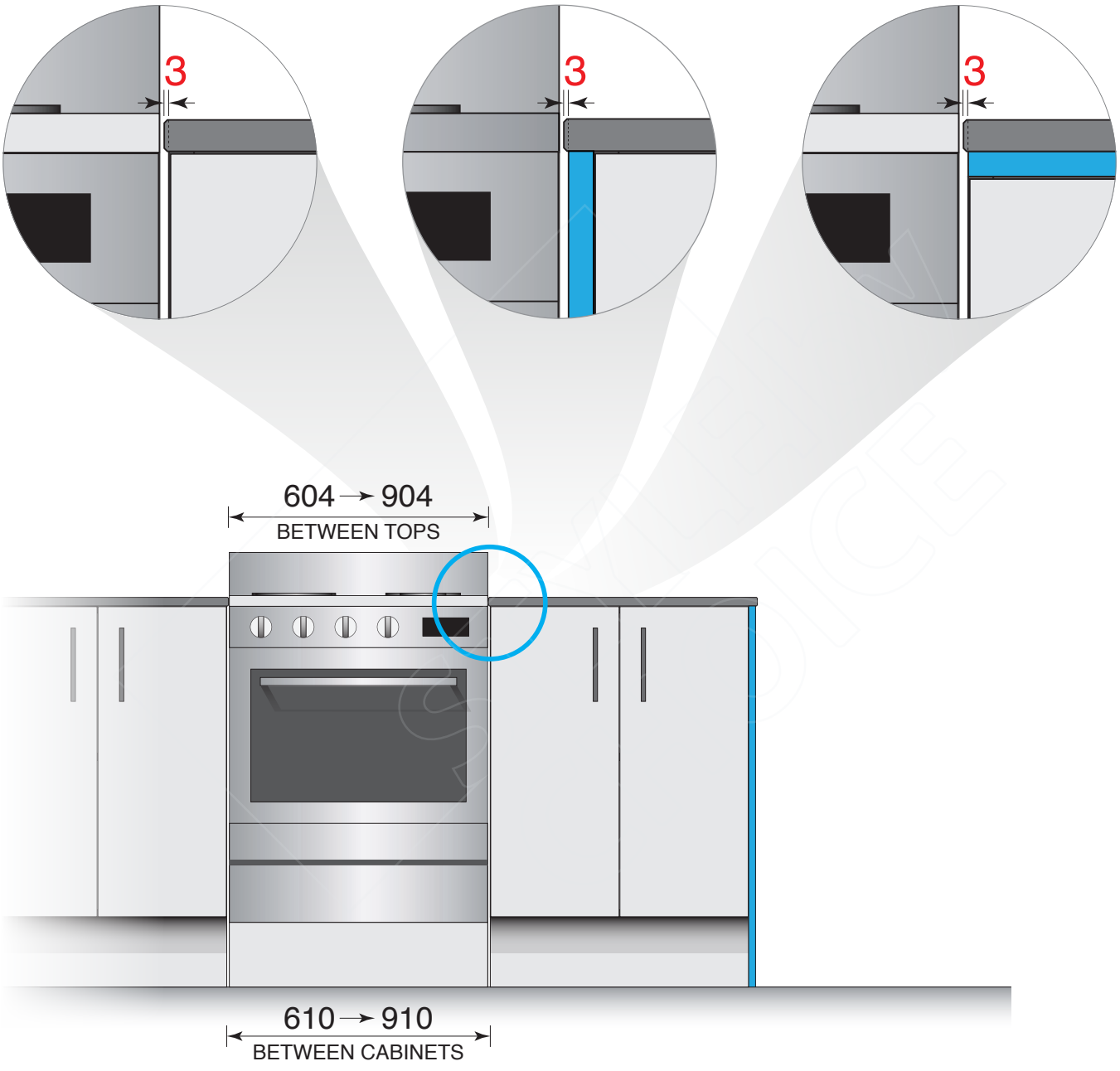


OVERHANGS INTO UPRIGHT OVEN SPACES

3mm overhang without end panel or shadow panel

3mm overhang with end panel

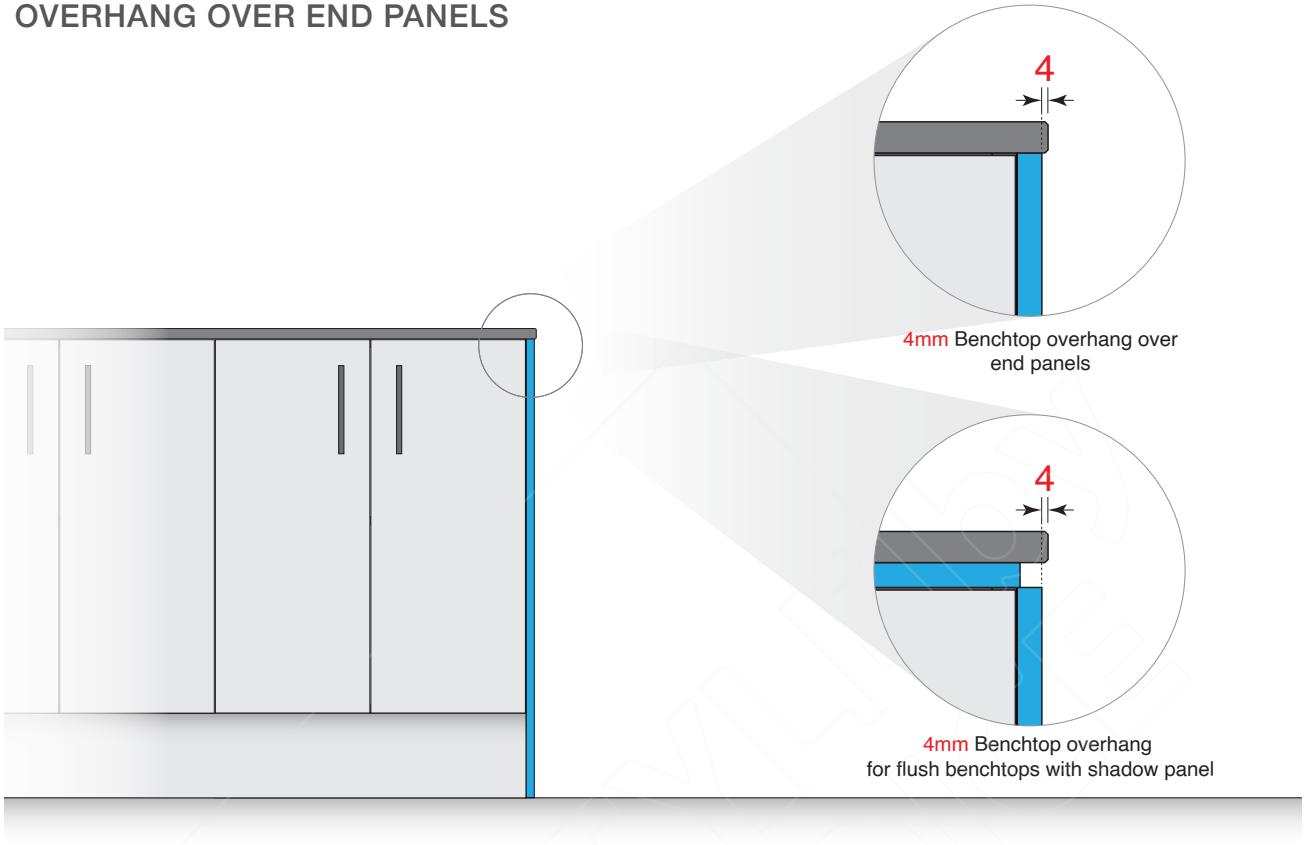
3mm overhang while shadow panel is flush with carcase



Benchtops

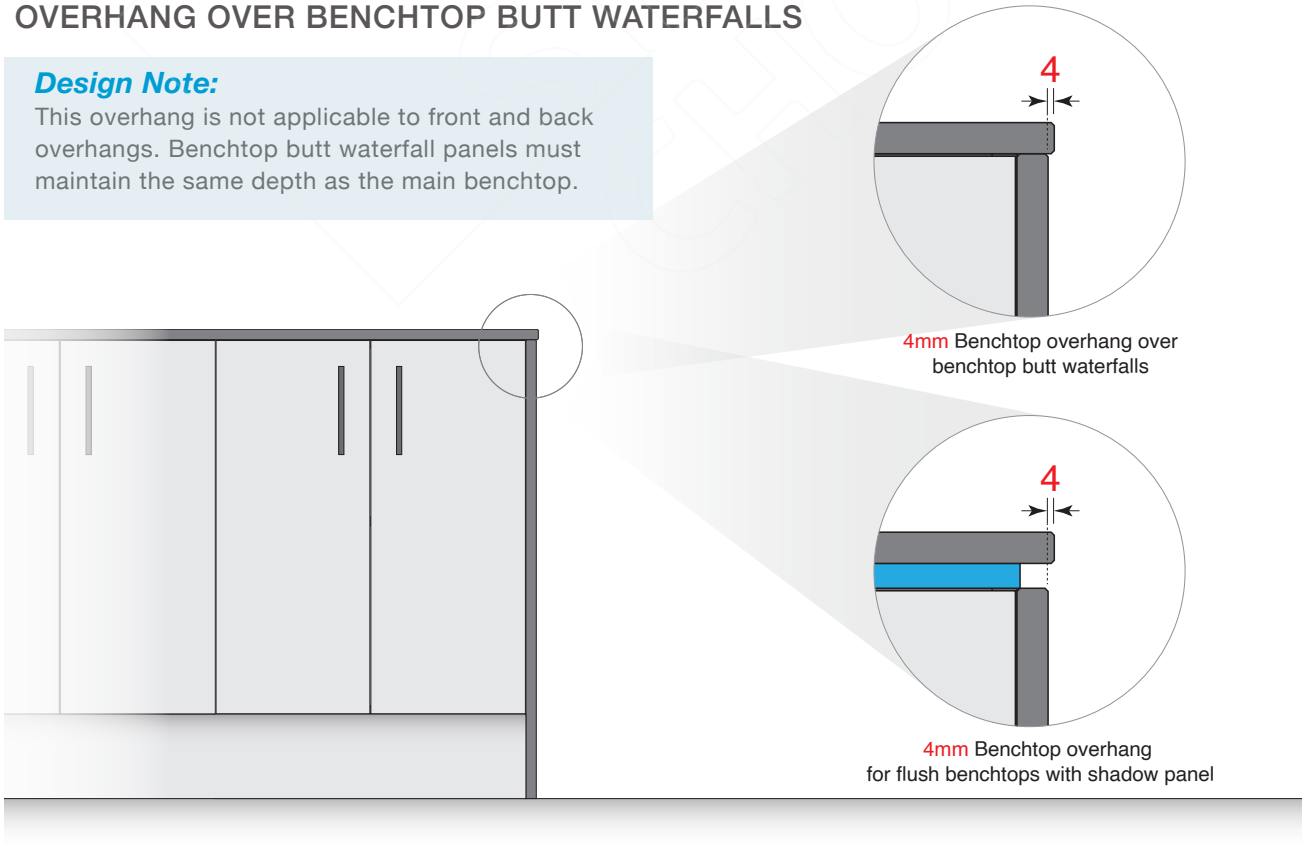
BENCHTOP OVERHANG

OVERHANG OVER END PANELS

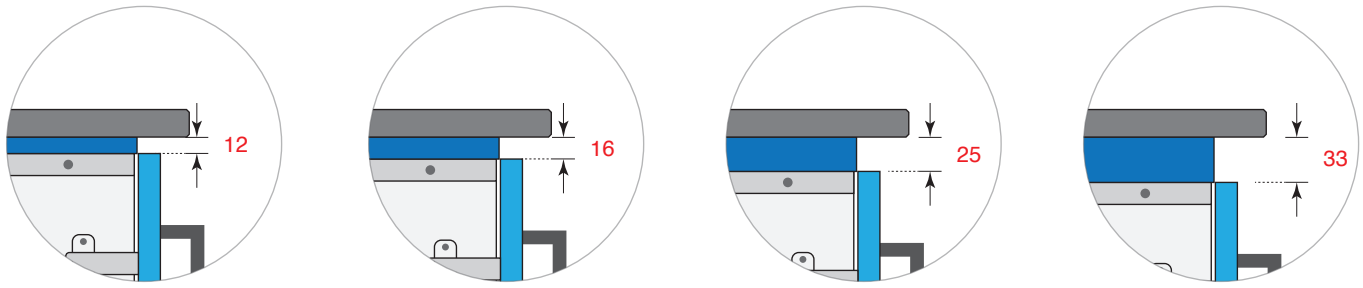


OVERHANG OVER BENCHTOP BUTT WATERFALLS

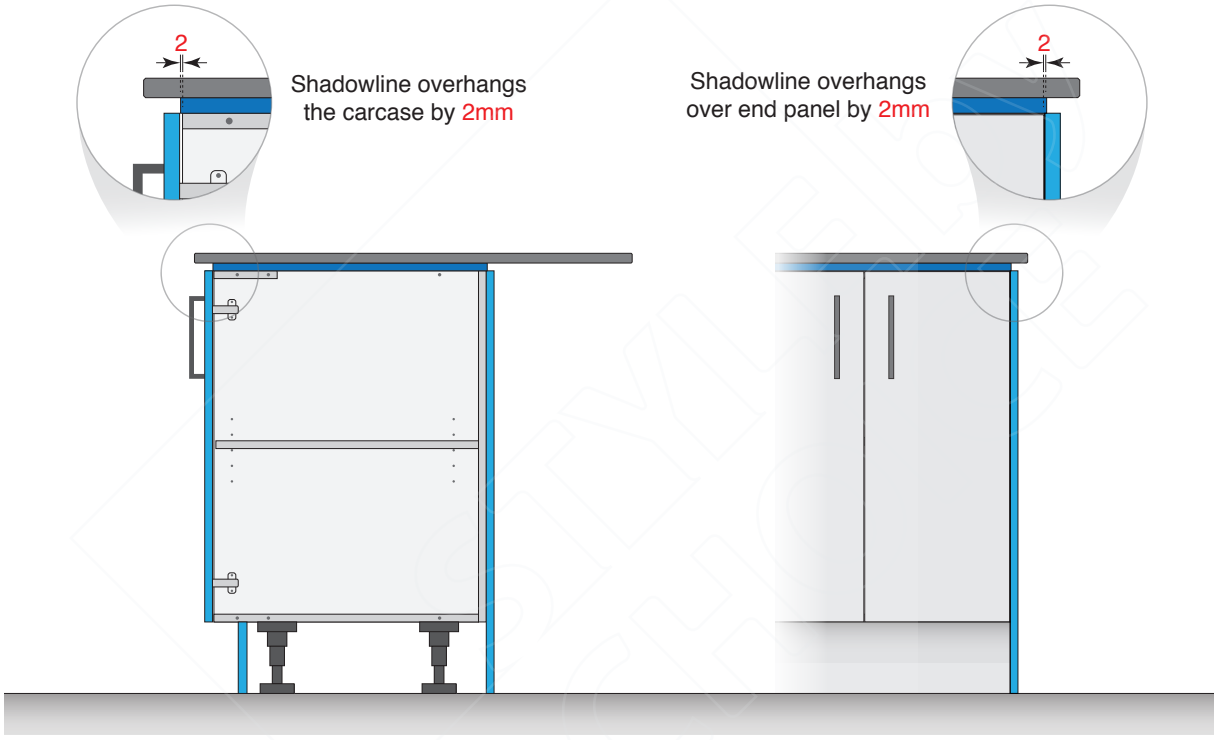
Design Note:
This overhang is not applicable to front and back overhangs. Benchtop butt waterfall panels must maintain the same depth as the main benchtop.



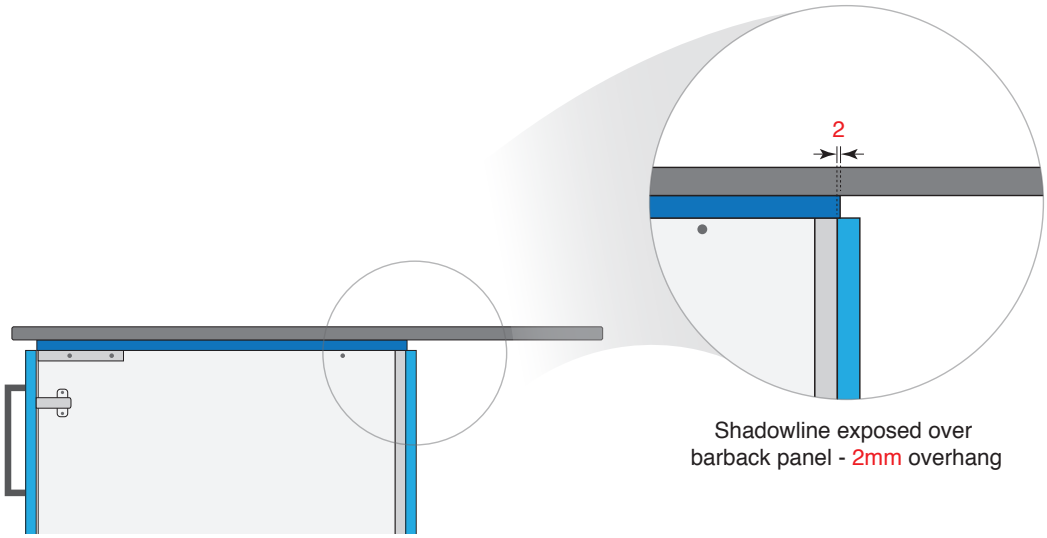
BENCHTOP SHADOWLINE THICKNESSES



BENCHTOP SHADOWLINES OVERHANGS



BENCHTOP SHADOWLINES ON BARBACKS



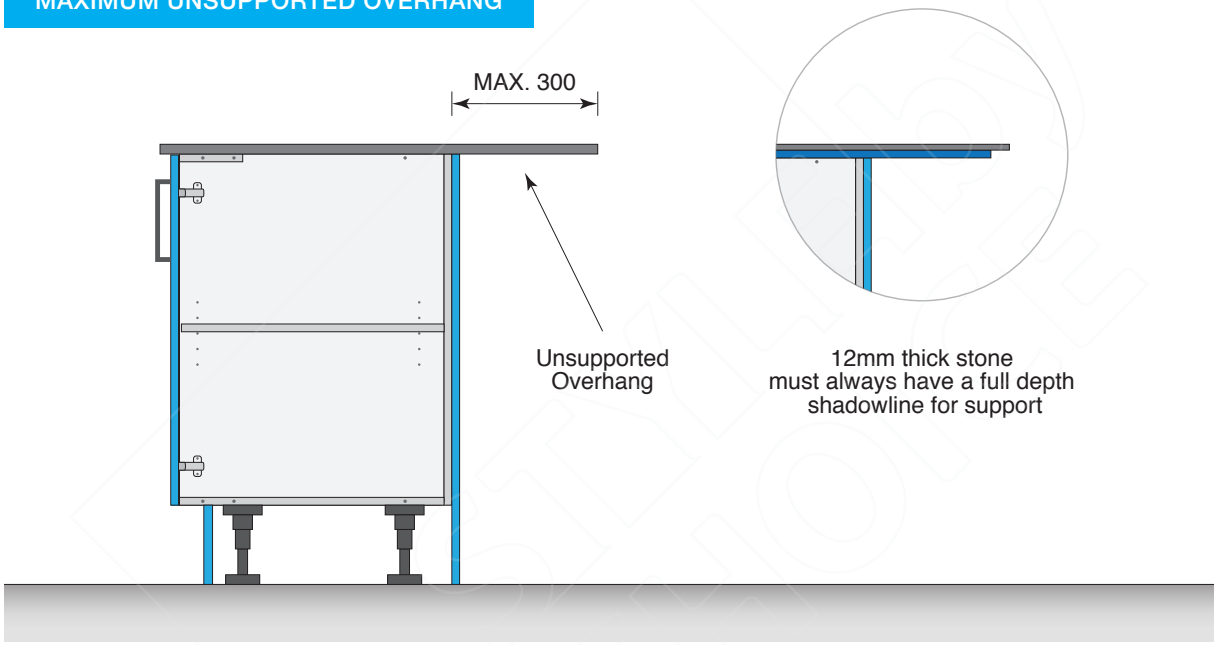
Benchtops

EXTENDED BENCHTOP OVERHANGS

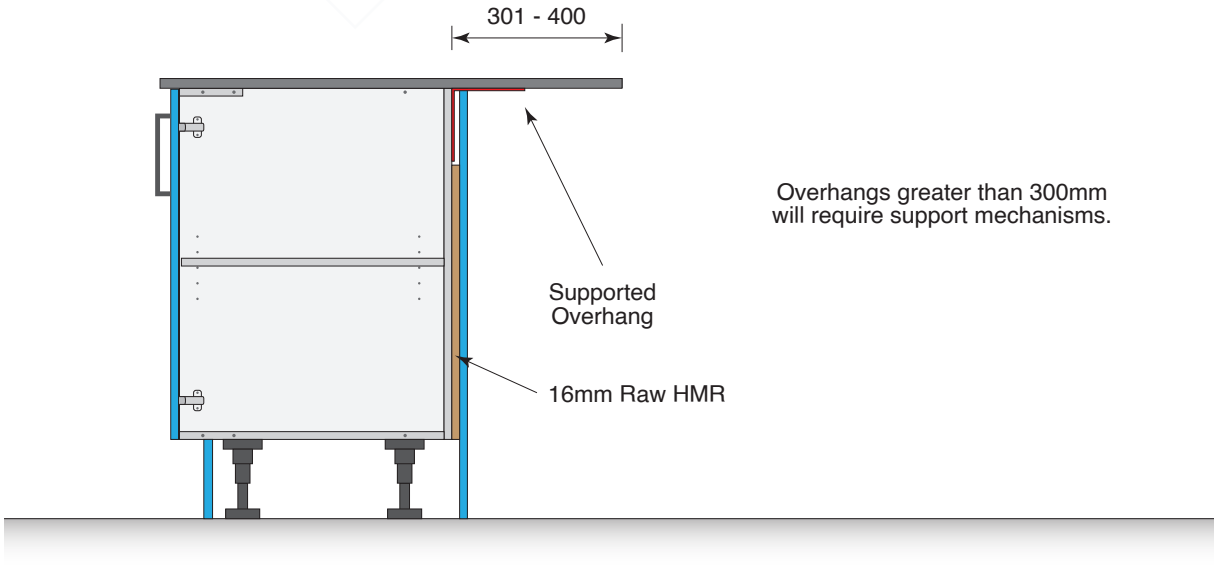
It is recommended that when designing with extended benchtop overhangs such as on breakfast bars, designers should check material specifications for maximum allowed overhangs. Additional support maybe required for overhangs exceeding these limits. Depending on the type of additional support required, joinery maybe adjusted for support mechanisms to be fitted unobtrusively.

Below are recommended overhang limits.

MAXIMUM UNSUPPORTED OVERHANG

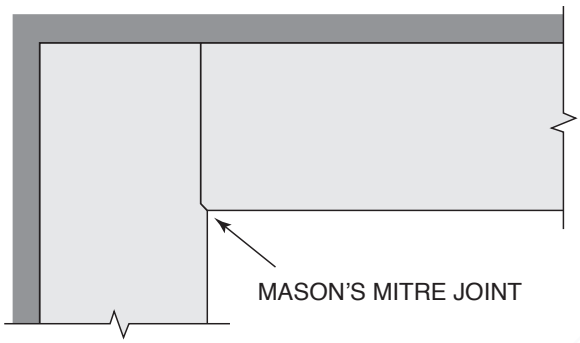


MAXIMUM SUPPORTED OVERHANG

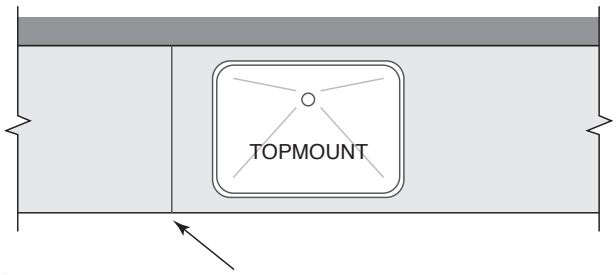


LAMINATE BENCHTOP JOINS

MASON'S MITRE JOINT



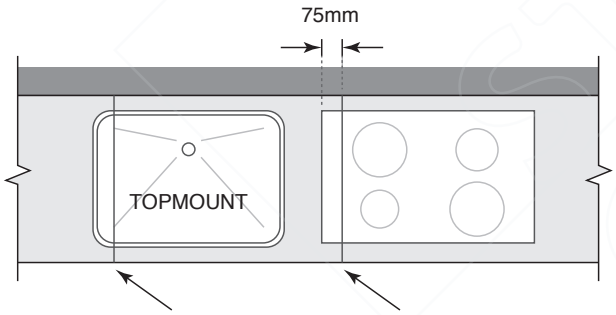
BUTT JOINT Topmount Sink Cutout



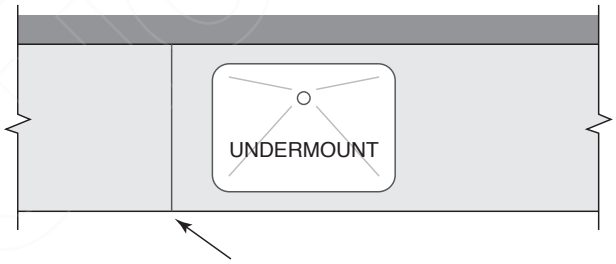
NOTE: These types of joins can be used depending on individual requirements. We recommend no joins used in laminate cutouts due to swelling.

STONE BENCHTOP JOINS

BUTT JOINT Topmount Sink/Hotplate Cutout



BUTT JOINT Undermount Sink Cutout



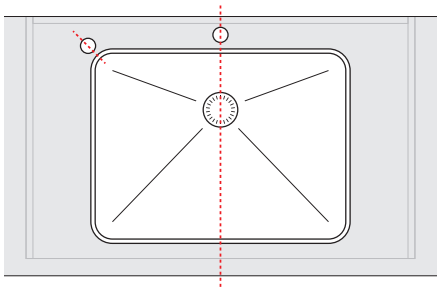
NOTE: These types of joins can be used depending on individual requirements if benchtop is longer than stone slab length.

Tap Holes for Sinks

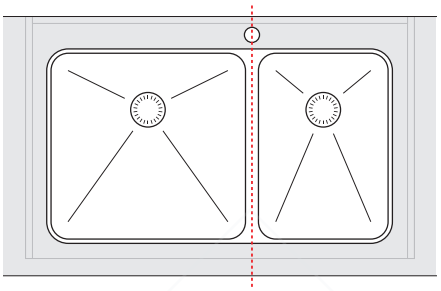
TAP HOLE POSITIONING & CLEARANCES GUIDE FOR SINKS

Please use the following guide for positioning tap holes around sinks. This guide is applicable for taps with 35mm wide body, with bases that are at most 60mm wide. Please take note that there are some tap designs that require more clearance at the back.

Positioning taps around sinks

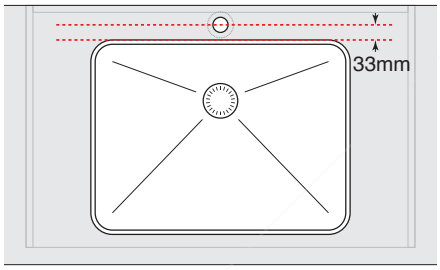


Sink tap holes can be centred to the sink or offset to a side.

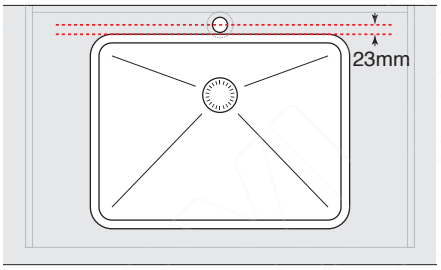


Tap holes for sinks with dividers must always be aligned with the divider.

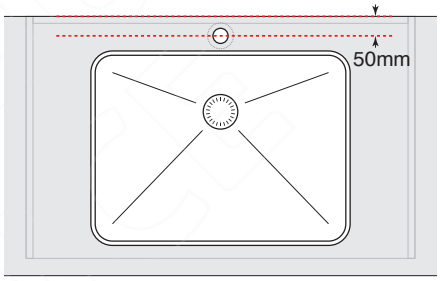
Clearance rules for positioning taps around sinks



RULE 1 - TOPMOUNT (INSET) SINKS: There must be AT LEAST 33mm from the centre of the tap hole to the outside edge of a TOPMOUNT sink.

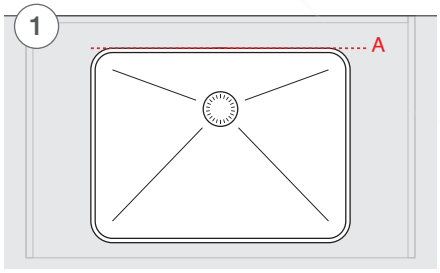


RULE 2 - UNDERMOUNT SINKS ONLY: There must be AT LEAST 23mm from the centre of the tap hole to the outside rim of an UNDERMOUNT sink (not edge of cutout).

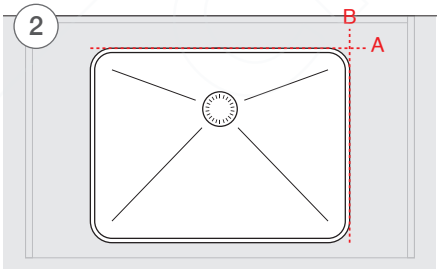


RULE 3: From the back of the benchtop to the centre of the tap hole there must be AT LEAST
*50mm for 10mm thick splashbacks/tiles
*60mm for 20mm thick splashbacks

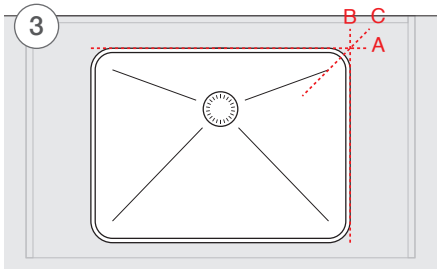
Please use the following steps to offset a tap hole to a side of the sink



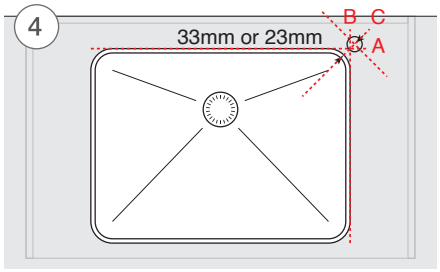
Visualise a line (A) tangent to the back edge of the sink.



Visualise a second line (B) tangent to the side edge of the sink.



Visualise a third line (C) that intersects both Line A and B and runs 45 degrees towards the sink edge.

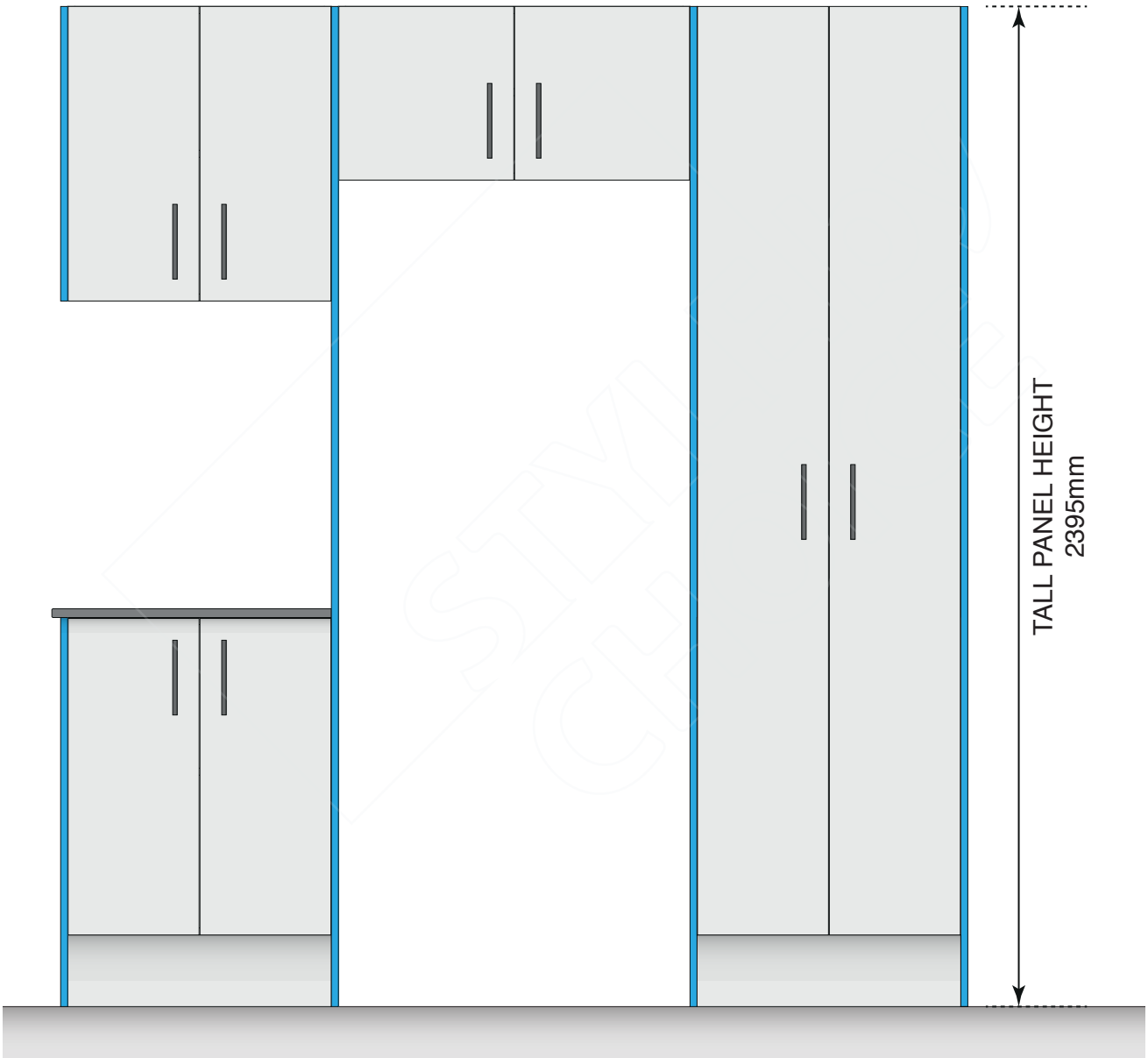


Place the centre of the tap hole along Line C, as per rules 1 and 2.

Doors & Panels

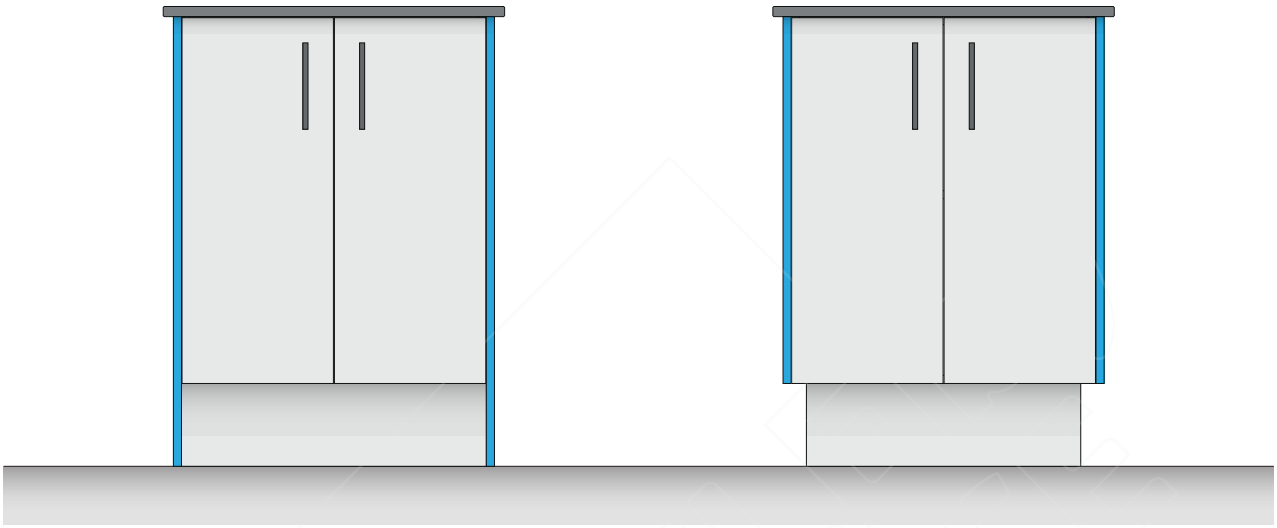
TALL PANEL HEIGHT

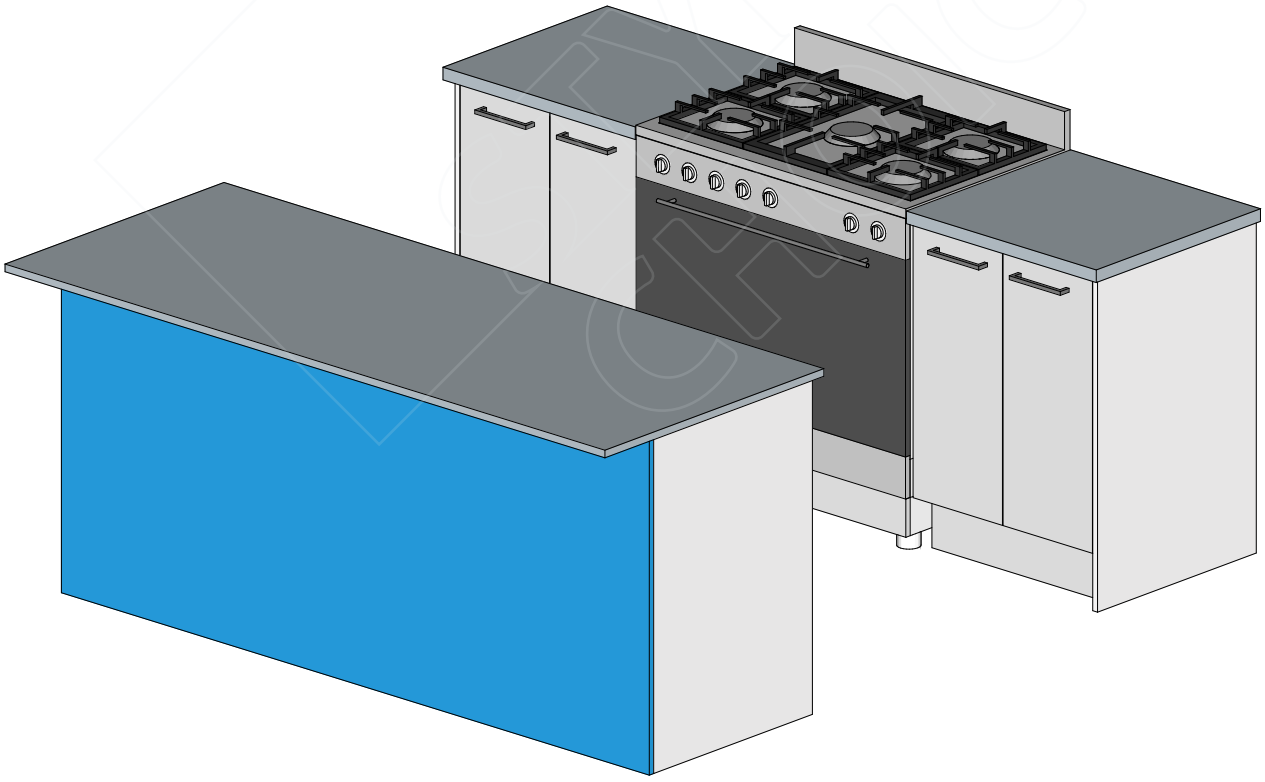
When designing with tall panels, care must be taken to work within the size limitations of the selected board to avoid joins in the panel. As board sizes vary, please check supplier availability and range when specifying board heights above 2395mm.



END PANELS TO THE FLOOR OR OFF THE FLOOR

Base and tall panels can either be to the floor or off the floor. Both options allow different styles of design and function.





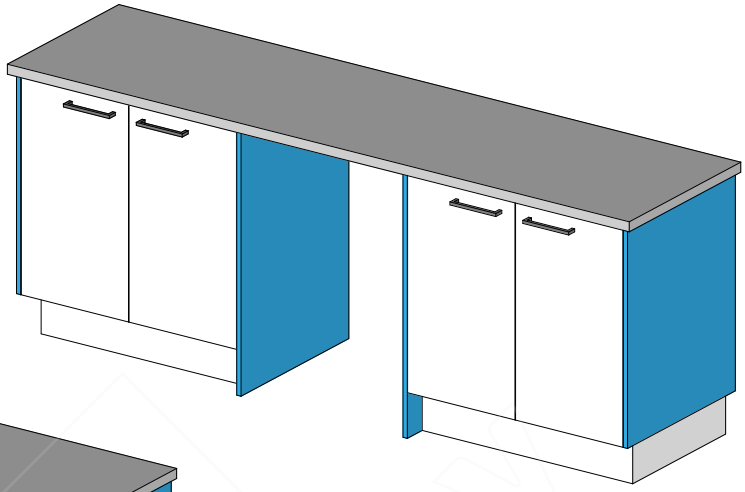
Barbacks are often installed to the floor. In such situations, end panels would also need to be matched and installed to the floor.

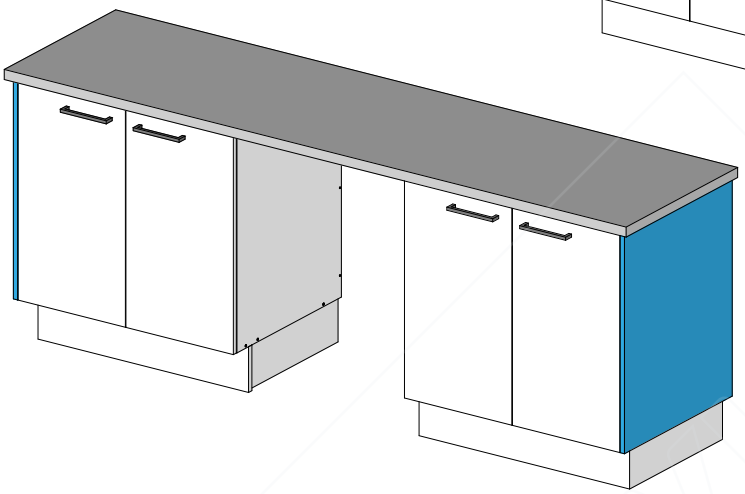
Doors & Panels

DISHWASHER SPACE WITH & WITHOUT PANELS

Dishwasher spaces can be installed with or without panels either side.

This is an aesthetic feature and a design decision dependent on the design of the surrounding cabinets.

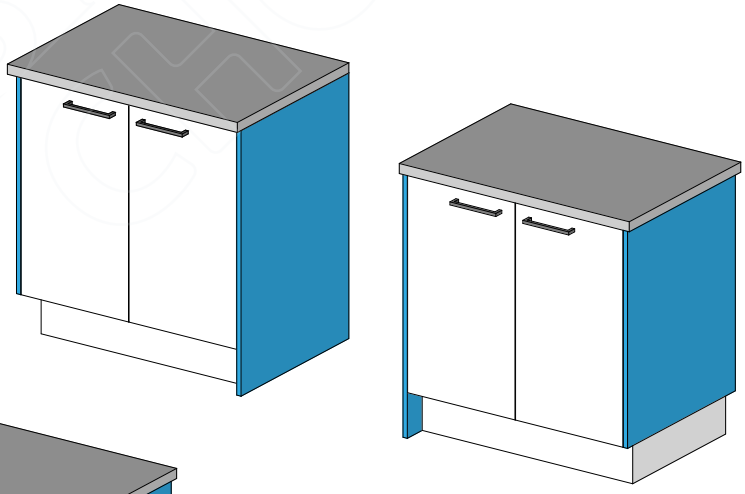


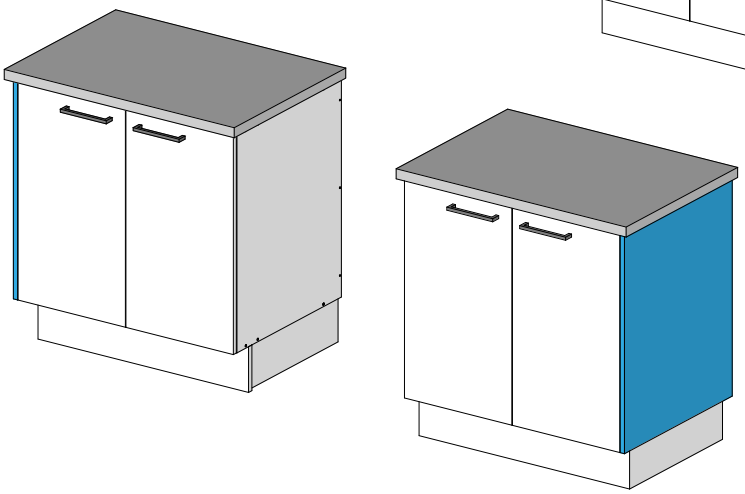


Integrated Dishwasher options must not have panels.

UPRIGHT STOVE SPACE WITH & WITHOUT PANELS

Upright Stove spaces also can be installed with or without panels either side.





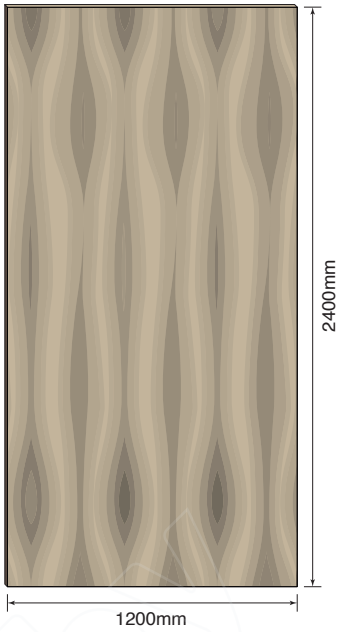
Integrated Upright Stove options must not have panels.

Grain on Doors & Panels

DOORS AND PANELS WITH WOOD GRAIN

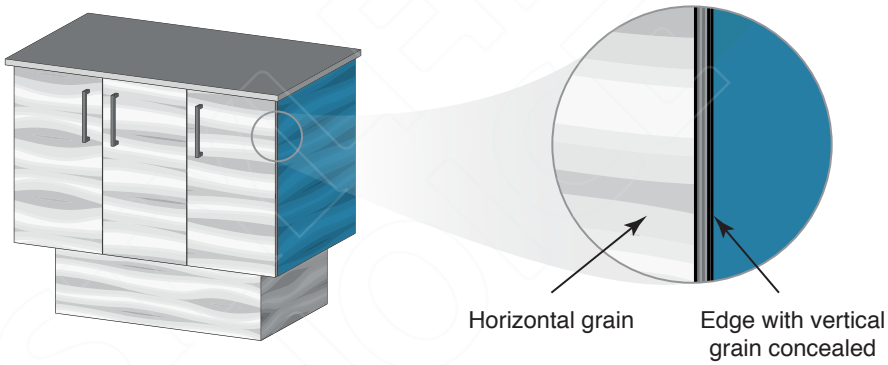
Designers often use styles that require doors and panels to use colours that mimic the look of wood. This is achieved by incorporating a wood grain pattern into the colour or in some cases even into the texture.

Such designs mostly have grain that run vertically down the length of the door or panel and occasionally have grain that runs horizontally along the width of the door or panel. Board suppliers usually manufacture grained colours to have the grain run along the length of the board.



HORIZONTAL GRAIN WITH END PANELS

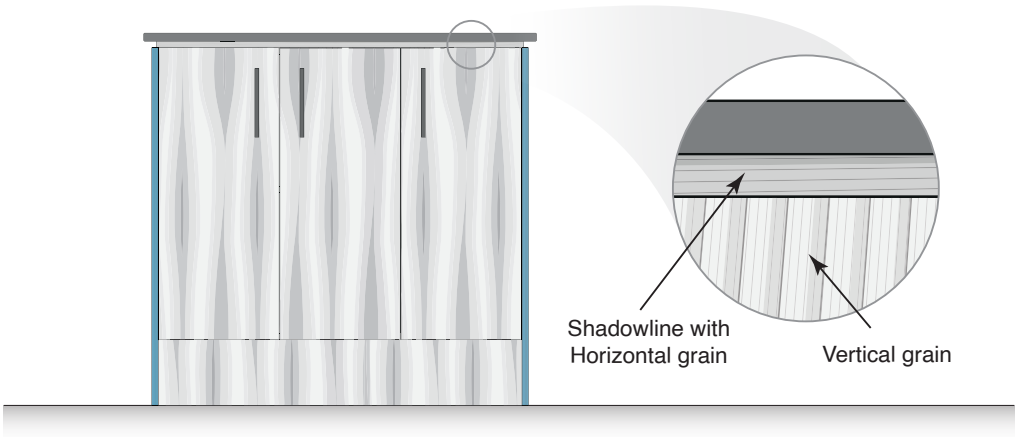
Edging on end panels always have vertical grain. (NOTE: Not applicable to plain colours) This can look conflicting when next to horizontal grained doors.



OVERLAY DOOR WITH END PANEL

VERTICAL GRAIN WITH BENCHTOP SHADOWLINE

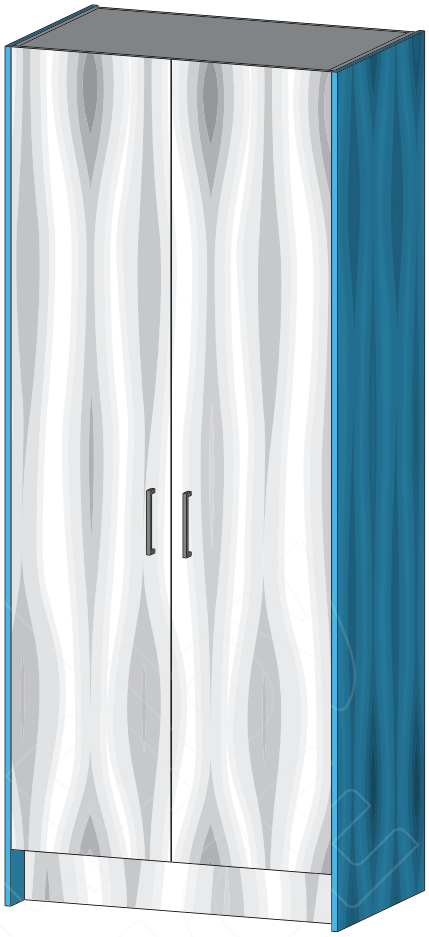
Benchtop shadowlines will always have horizontal grain. This is important to consider when designing with doors and panels with vertical grain, as it can look conflicting. To avoid this, consider using a solid colour on the shadowline.



Grain on Doors & Panels

GRAIN WITH TALL PANELS

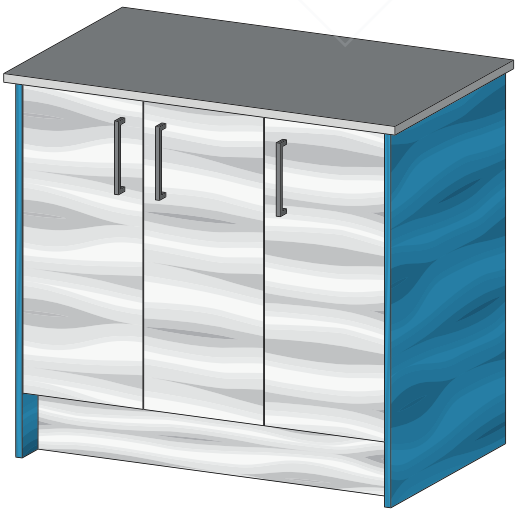
To work within the board size and avoid joints, it is advised that tall doors and panels always have vertical grain.



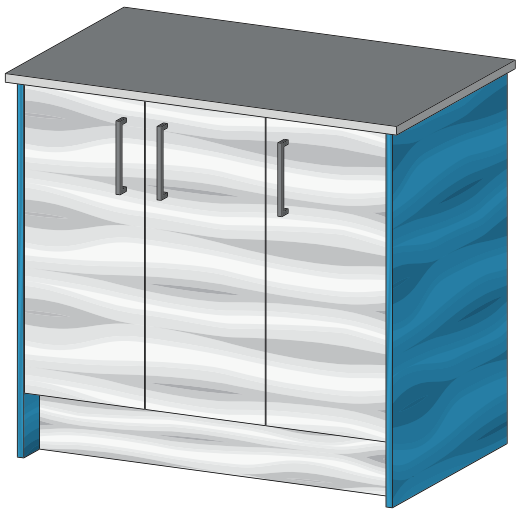
GRAIN MATCHING

Grain can be matched across a set of adjacent doors to make it look like they were all cut from one board. To avoid unnecessary cost, matching is only advised for large grain where a distinctly continuous grain pattern is visible, as opposed to fine grain where the grain looks the same everywhere.

Grain can be matched for cabinet runs that do not exceed the board size of the selected material.



UNMATCHED



MATCHED

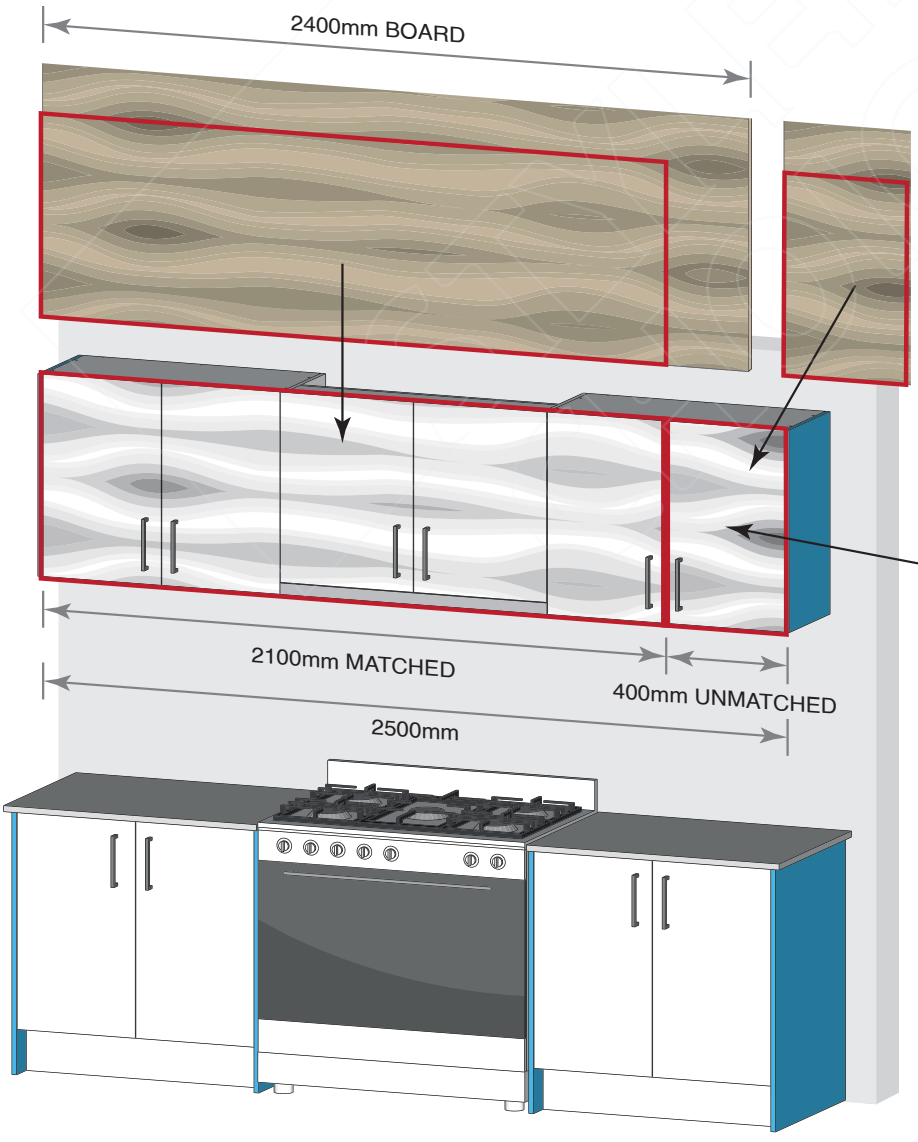
HORIZONTAL GRAIN WITH END PANELS

There are limitations of grain-matching due to board size. Matching doors and panels need to be made out of a single piece of board with a continuous grain pattern. Hence, a given set of doors or panels will need to be within the size of the board for matching.

Example: For a board size of 2400mm x 1200mm the following conditions apply:

- Vertical grain-matching can be done on a run of doors and panels if:
  - the run does not exceed 1200mm in width and,
  - the run does not exceed 2400mm in height
- Horizontal grain-matching can be done on a run of doors and panels if:
  - the run does not exceed 2400mm in width and,
  - the run does not exceed 1200mm in height

Due to the loss in efficiency and resulting wastage, **grain-matching can be costly**. If any matched doors or panels need replacement, the whole matching run must be replaced together.



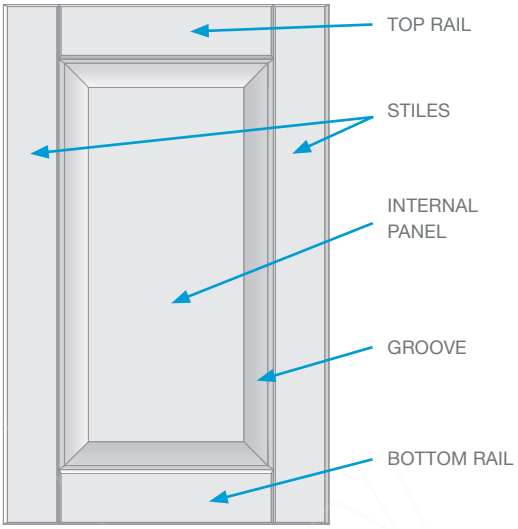
e.g.
Unmatched Door:
For a board length of 2400mm, grain could not be matched across all doors as the run exceeds board size.

Profiled Doors & Drawers

PROFILE DETAIL

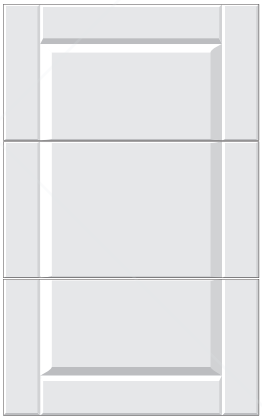
Profiles can be applied to door fronts, drawer fronts and panels. These profiles consist of stiles and rails that surround an internal panel.

The stiles and rails together form the outer frame. The internal panel is separated from the outer frame by a groove.



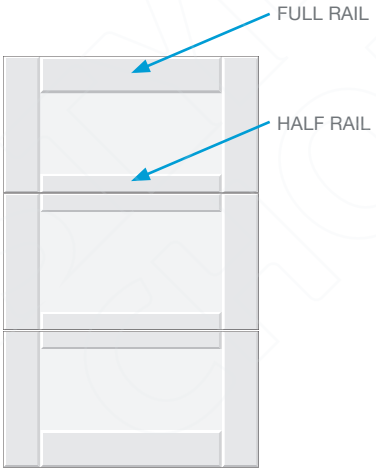
DRAWER LAYOUTS

Profiled drawers often have three different layouts, as shown below. The use of these layouts are varied across kitchen designs, and there are various limitations for different profiles.



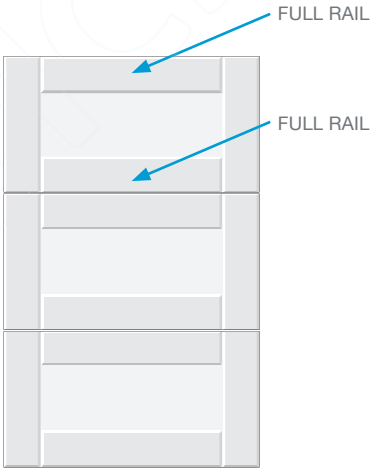
DRAWER BANK

A full profile is completed when all drawer fronts are together.



DRAWER SET

Each drawer front has a profile, but half rails are used in between profiles.



DRAWER INDIVIDUAL

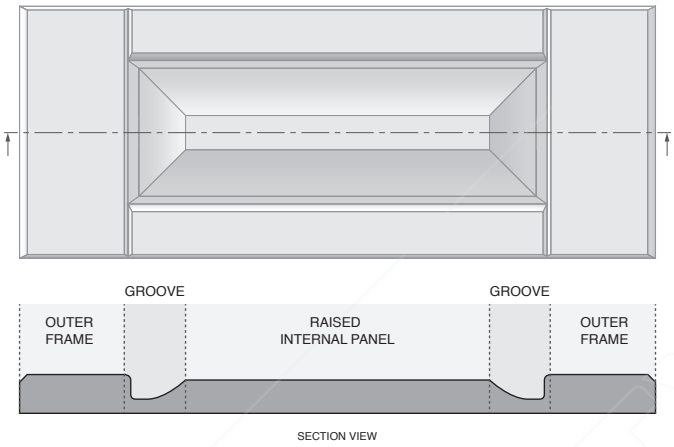
Each drawer profile is an individual profile.

When designing with profiled doors and drawers, the minimum size of a given profile must be considered. Due to the profile frame and grooves, they cannot always be made to the same size as flat panel doors and drawers. Profile types can generally be categorised into two categories based on how they affect designs.

ROUTERED-FACE PROFILES

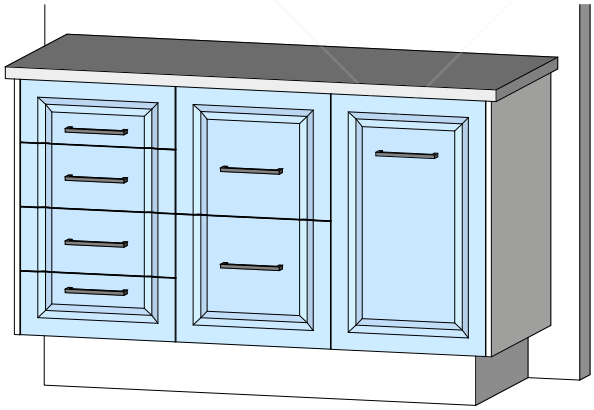
Routered-face profiles have a **Groove** that runs along the face that separates a **Raised Internal Panel** from an **Outer Frame (stiles and rails)** as shown in the diagram below. These grooves can often be wide and therefore shrink the internal panel to a size that is too small for handle mounting.

The minimum size for these profiles vary, so as a general rule, if the required height is below 240mm, please check availability with the supplier.



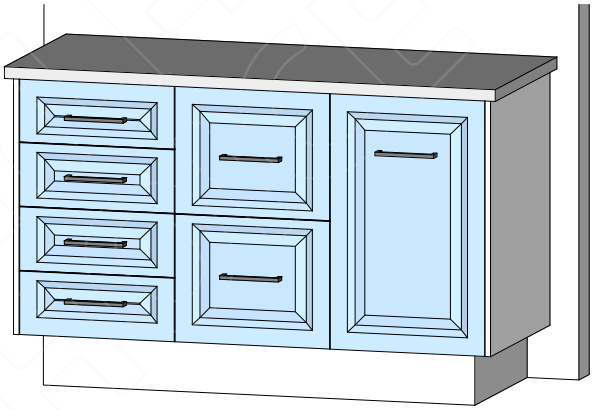
RECOMMENDED	NOT RECOMMENDED
DRAWER BANK	DRAWER SET DRAWER INDIVIDUAL

DRAWER BANK

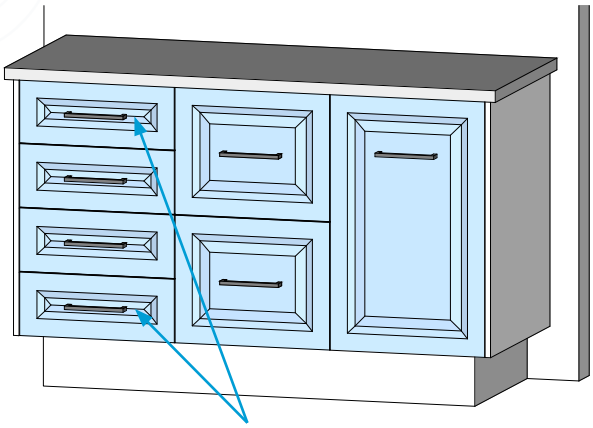


RECOMMENDED

DRAWER SET



DRAWER INDIVIDUAL



The internal panel can be too small on the top and bottom drawer fronts for the handle to be mounted on to.

NOT RECOMMENDED

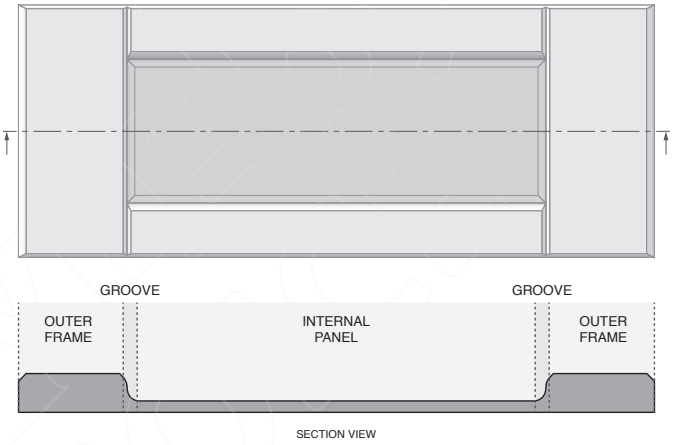
Profiled Doors & Drawers

POCKETED-FACE PROFILES

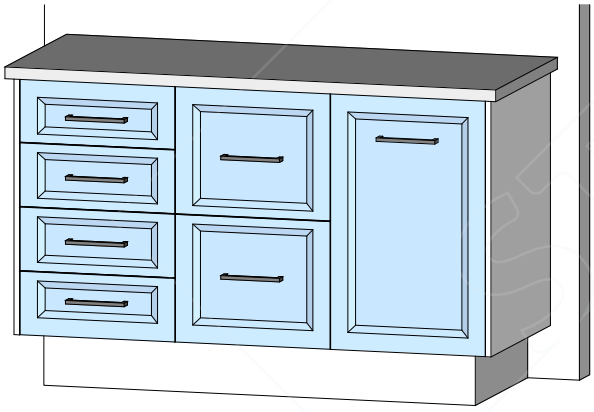
Pocketed-face profiles have a central area of the panel routered out. This area is considered the **Internal Panel**, and the rest of the board is considered the **Outer Frame (stiles and rails)**. The internal panels on these profiles often have very thin cross-sections, as seen in the diagram below. These profiles are not recommended in drawer banks as the middle drawer fronts have no top or bottom rails for support, as illustrated here. This can lead to the bowing of the drawer front.

The minimum size for these profiles vary, so as a general rule, if the required height is below 180mm, please check availability with the supplier.

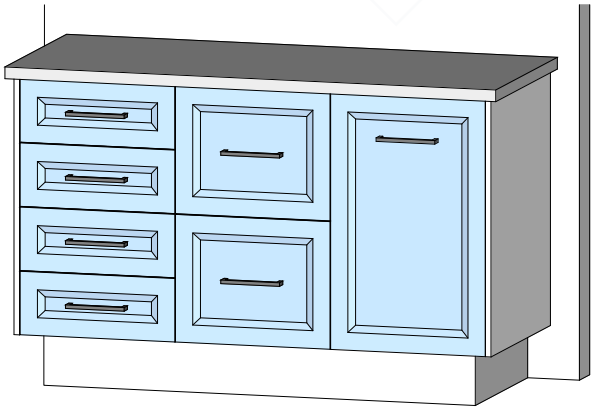
RECOMMENDED	NOT RECOMMENDED
DRAWER SET DRAWER INDIVIDUAL	DRAWER BANK



DRAWER SET

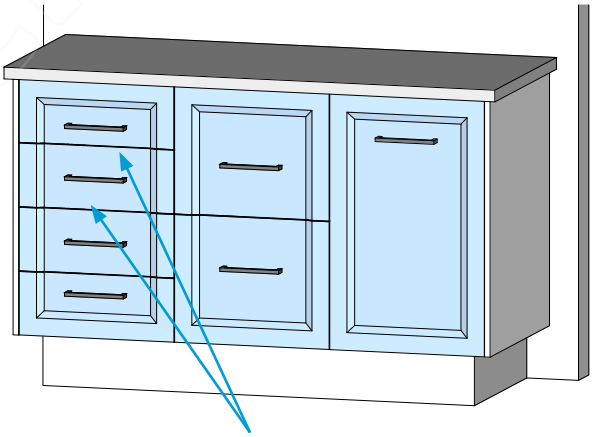


DRAWER INDIVIDUAL



RECOMMENDED

DRAWER BANK



In Drawer Banks, the middle drawer fronts have no top or bottom frame for support. Therefore bowing can occur on these drawer fronts.

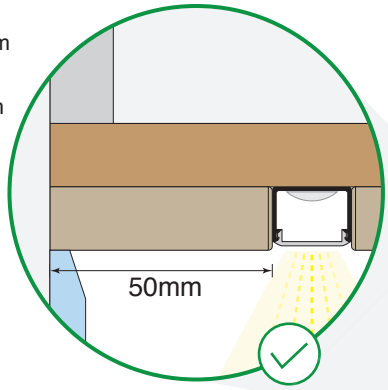
NOT RECOMMENDED

Lighting Applications

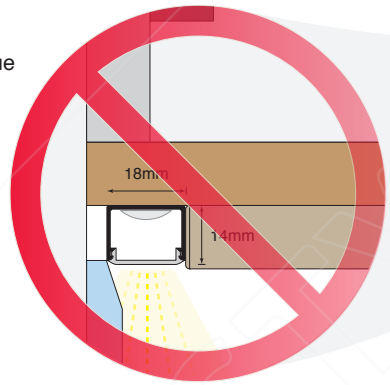
UNDERSIDE OF OVERHEAD CABINETS

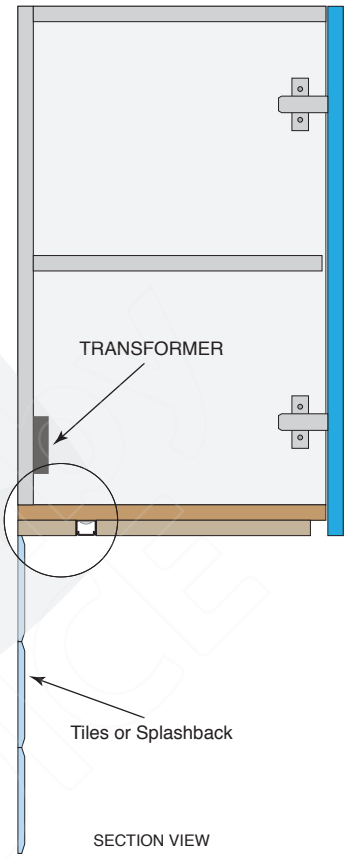
LED light strips have a range of different applications in joinery design. Below are some common examples of how strip lights can be integrated into joinery.

A gap can be placed 50mm from the back of the underpanel to suit a 14mm deep LED channel.

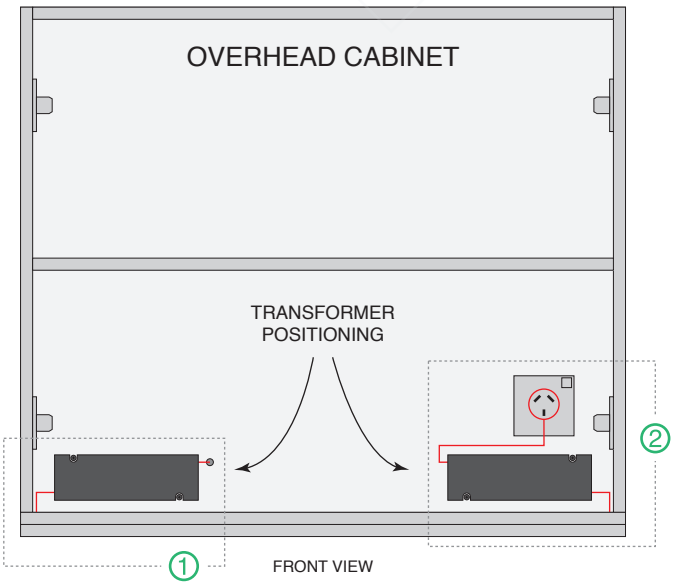


Placing LED strip lights at the back is not advised due to varying thicknesses of splashbacks and tiles.





When installing LEDs on overhead cabinets, the transformer can be housed inside the cabinet. It is advised that the transformer be fixed to the back of the cabinet so that storage is unobstructed.



RECOMMENDED TRANSFORMER INSTALLATION OPTIONS

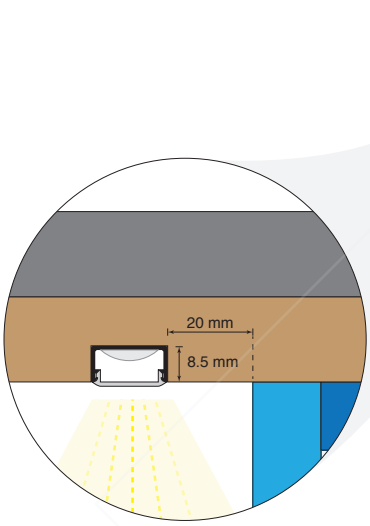
Transformers can be connected to power by either:

1. DIRECT: Hardwired through the back
2. GPO: Plugged into a power outlet located anywhere in the cabinet.

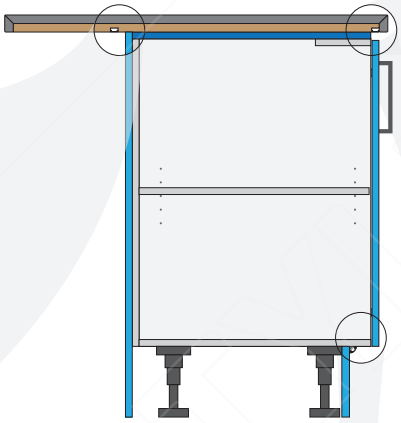
UNDER BENCHTOP OVERHANGS

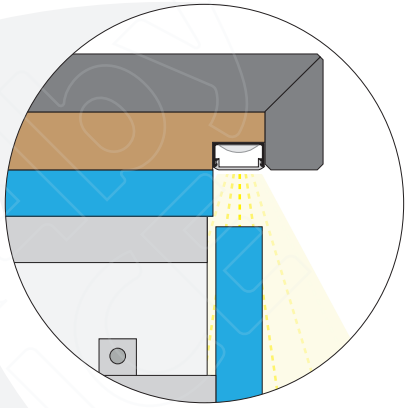
LED light strips can be fitted to various benchtop situations. For stone benchtops, this can only be applied to 40mm and 60mm stone benchtops. For laminate benchtops, this can be applied to 33mm benchtops. A shallow recess can be made on the substrate or chipboard to suit a shallow LED channel.

- Back overhang lighting must be fixed 20mm from the bar back to create an even lighting pattern.
- Front overhang lighting must be used in conjunction with a shadow panel or fingerpull with a minimum of a 20mm overhang. This ensures there is enough room for the light to project out.

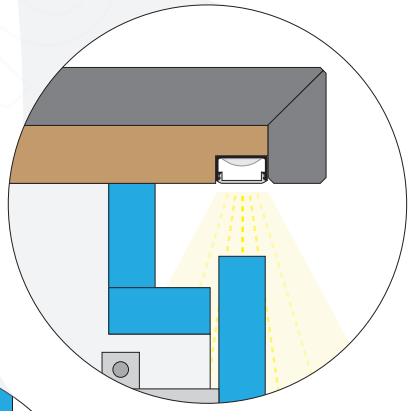


Back overhang LED





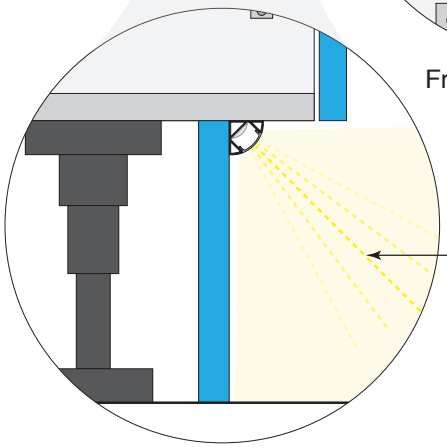
Front overhang LED with shadow panel



Front overhang LED with fingerpull

UNDERSIDE OF BASE CABINETS (KICKBOARDS)

Lighting for the underside of base cabinets can be installed on the underside using a surface mounted corner channel that fits where the kicker starts.



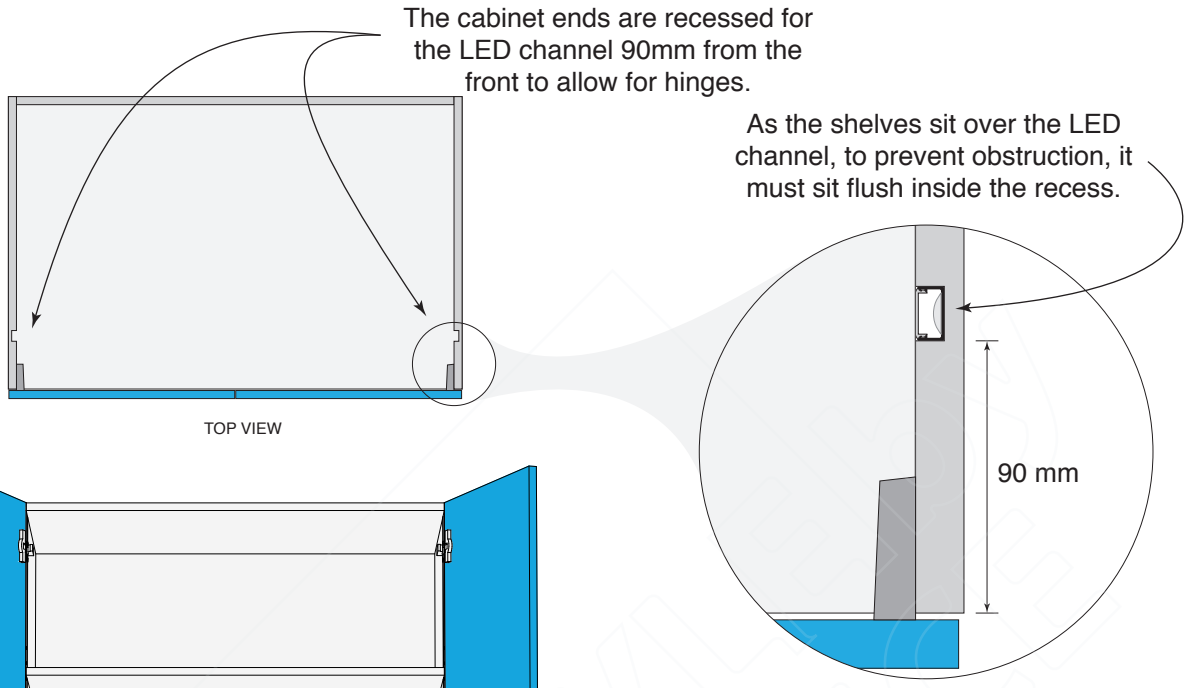
Light projects off at 45 degrees

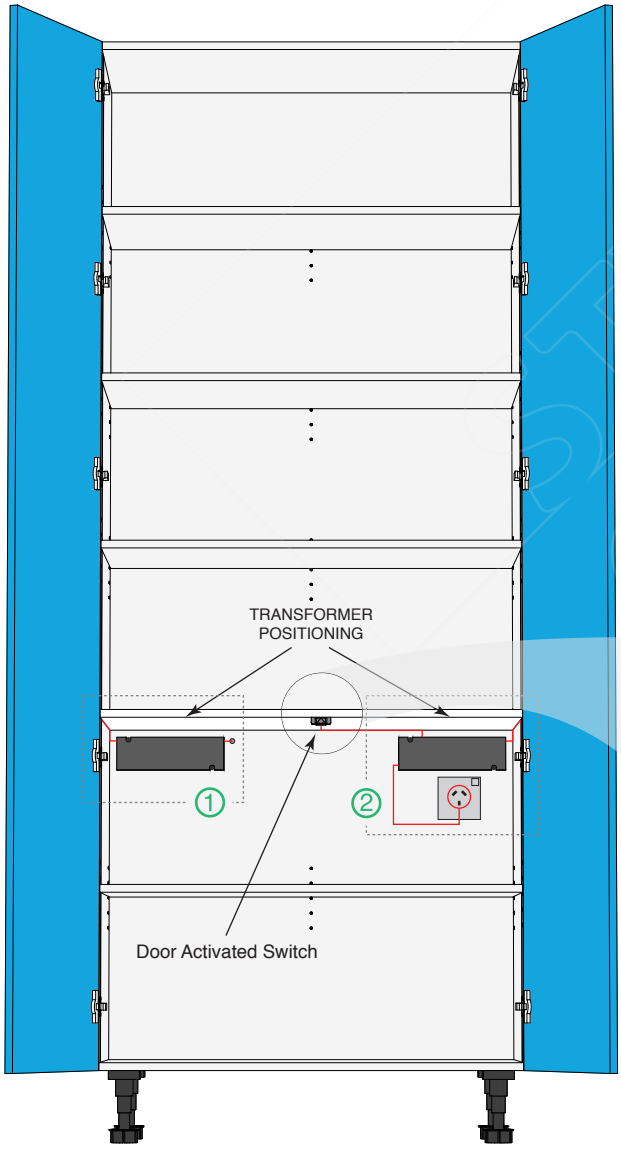
Under side of base cabinet

Lighting Applications

TALL CABINETRY

LED light strips can be fitted inside tall cabinets such as pantry or linen cabinets.
These lights can be triggered to work with door activated switches.

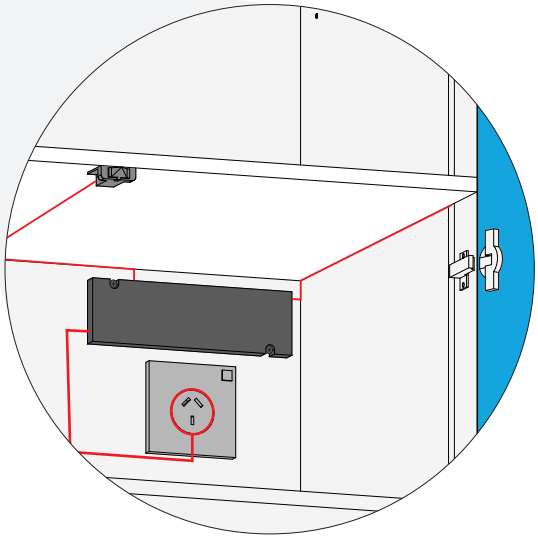




RECOMMENDED TRANSFORMER INSTALLATION OPTIONS

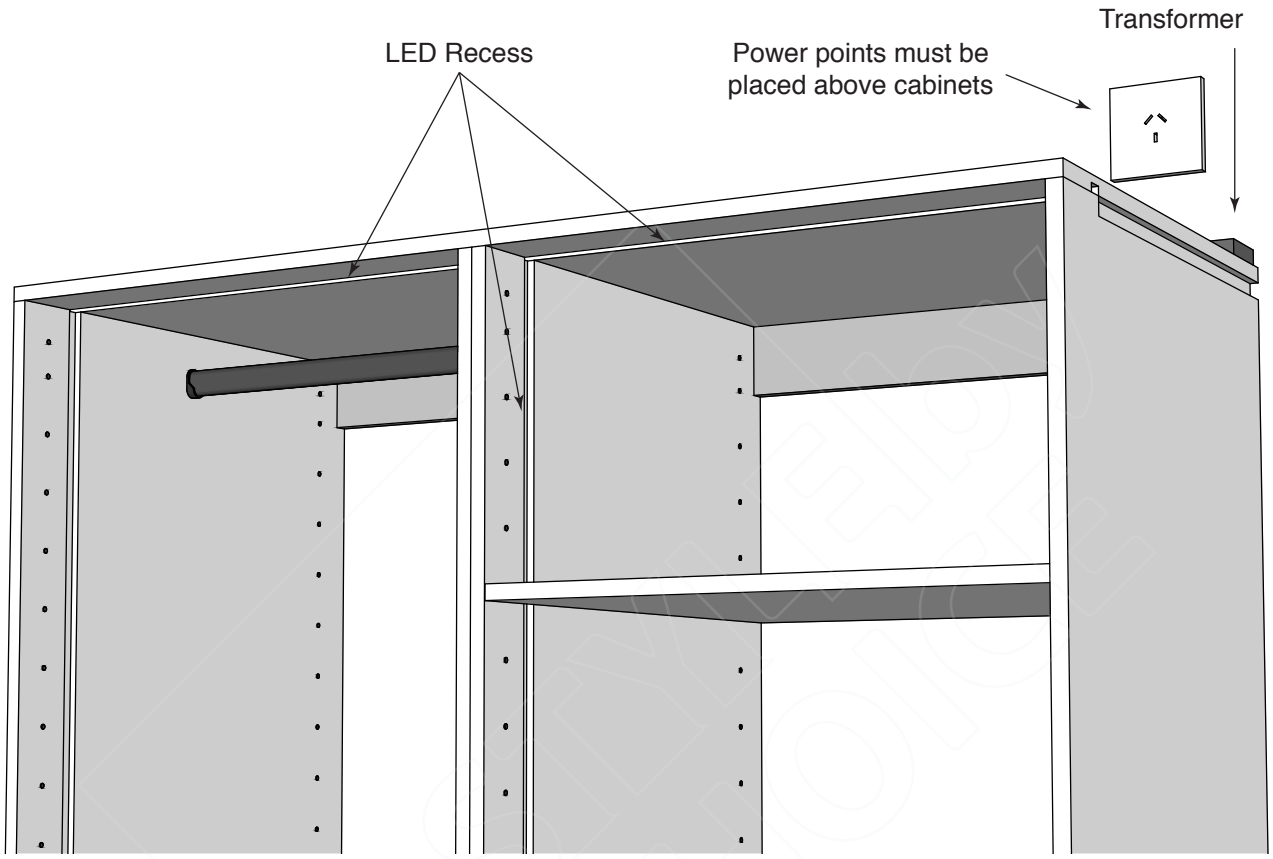
Transformers can be connected to power by either:

1. DIRECT: Hardwired through the back
2. GPO: Plugged into a power outlet located anywhere in the cabinet.

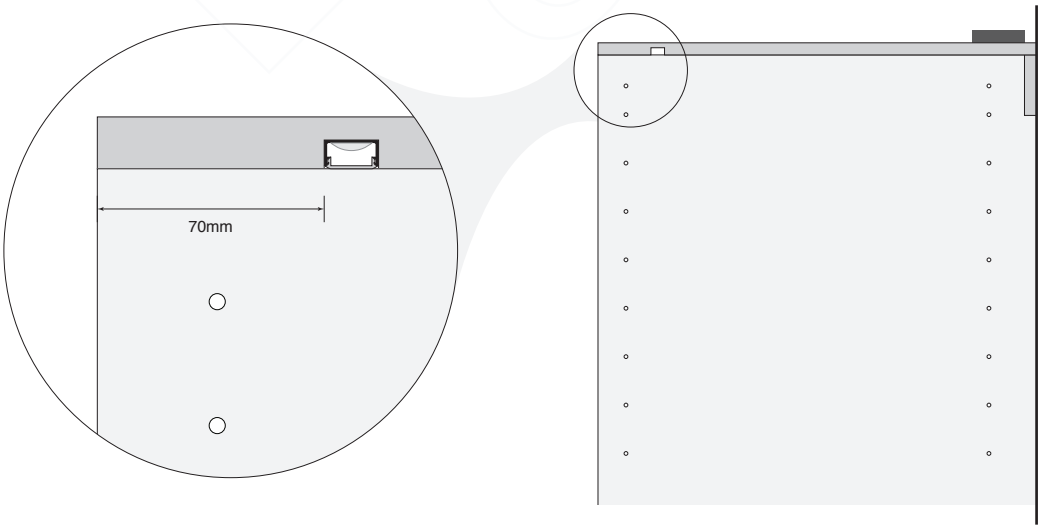


INSIDE WALK-IN-ROBE UNITS

LED Light strips can be fitted inside walk-in-robe units using a shallow recess mounting LED channel. Transformers for these applications can be placed on top of the top shelf at the back, close to an end or joint so that storage is unobstructed.



ROBE UNITS WITH LED LIGHTING

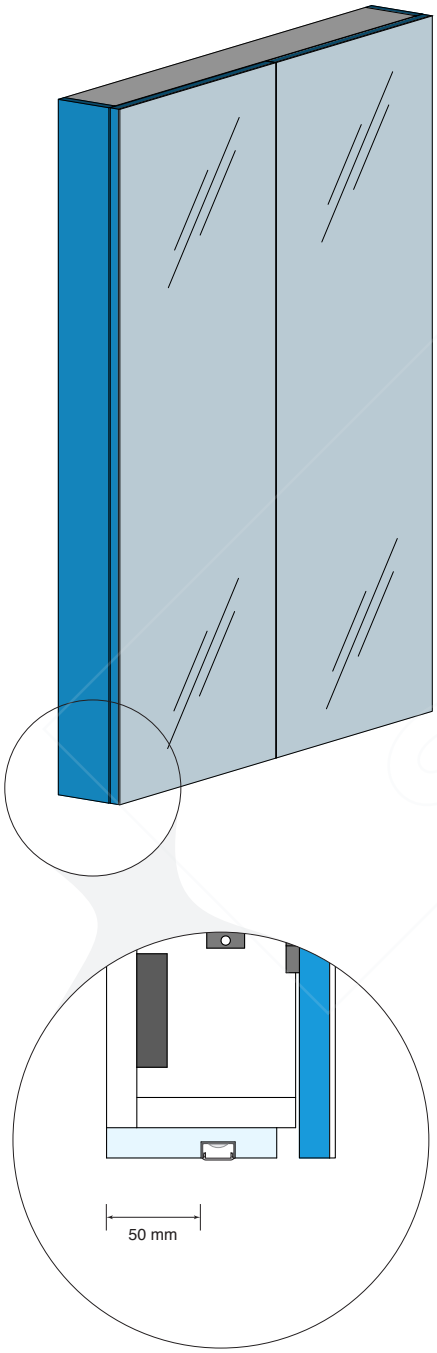


SECTION VIEW

Lighting Applications

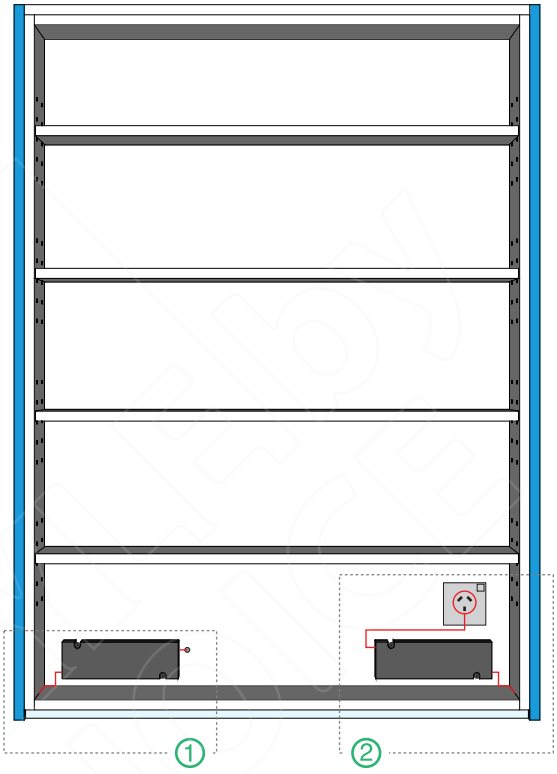
SHAVING CABINETS

LED light strips can be fitted to the underside of the shaving cabinet by using an underside panel with dropped doors. The panel can be recessed at 50mm from the back to allow for a shallow LED channel. The transformer can be mounted to the back of the cabinet and be wired either DIRECT or to a GPO in the cabinet.



SECTION VIEW - END REMOVED

Dropped doors along with dropped endpanels can conceal the underside panel.



RECOMMENDED TRANSFORMER INSTALLATION OPTIONS

Transformers can be connected to power by either:

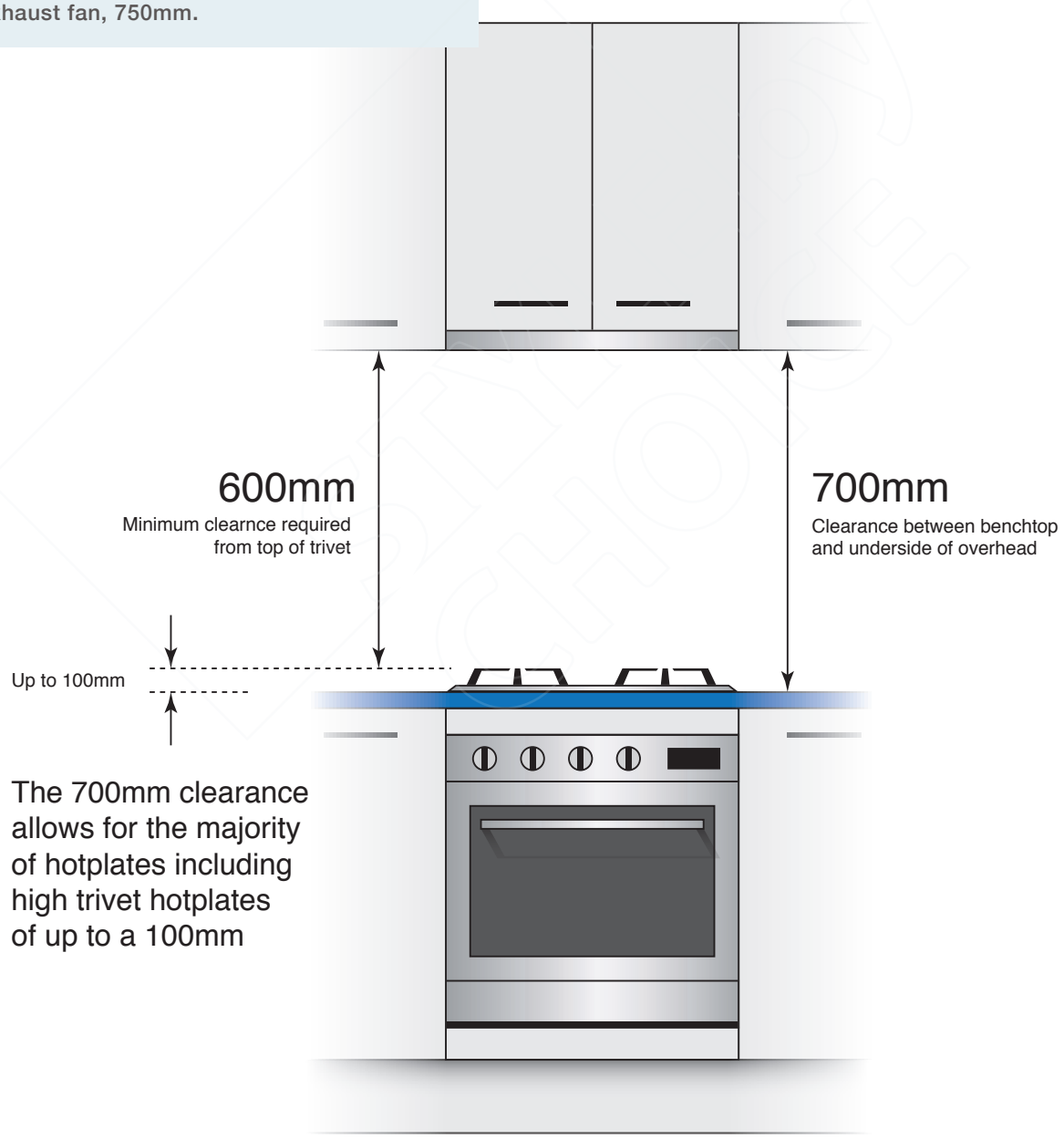
1. DIRECT: Hardwired through the back
2. GPO: Plugged into a power outlet located anywhere in the cabinet.

Compliance

Highlighted below are a range of situations where Australian Standards are required to be followed. We have designed our range and formed our suggestions based on our interpretation of these standards. In any situation the Australian Standards will take precedence over any suggestions we make.

COOKTOP TO RANGEHOOD CLEARANCE

Note:
The Australian Standards AS/NZS 5601.1:2010 indicates that the clearance between the highest part of the hob (trivet) of the gas cooking appliance and a rangehood must be no less than 600mm or, for an overhead exhaust fan, 750mm.



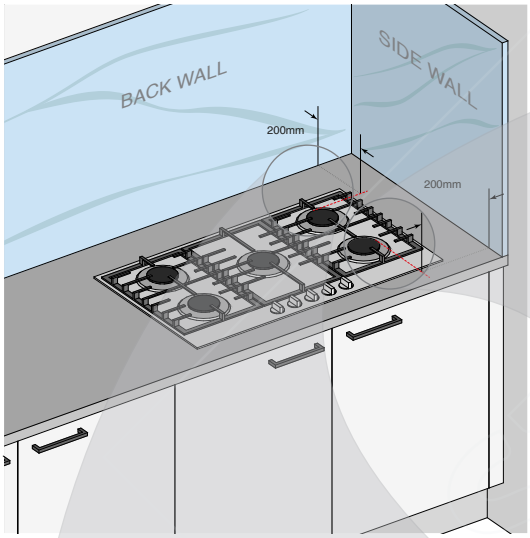
GUIDANCE ONLY

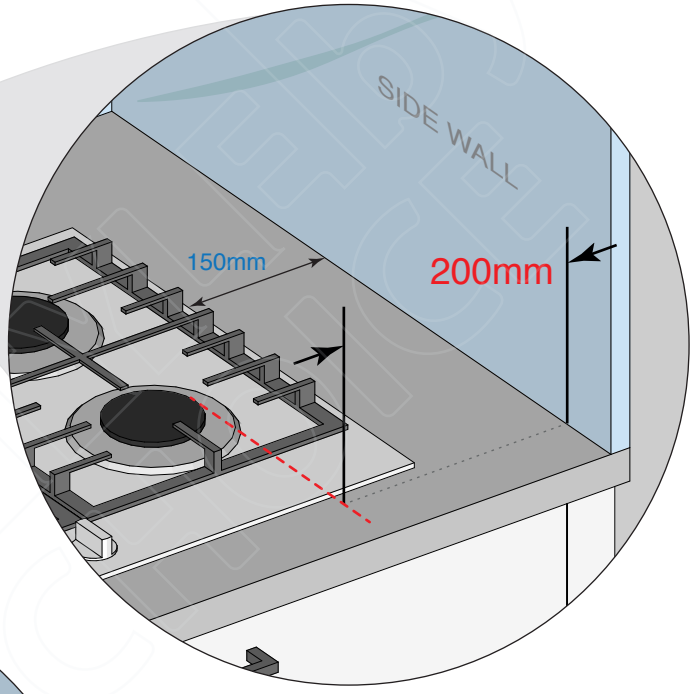
COOKTOP PLACEMENT WITH ENGINEERED STONE SPLASHBACKS (or any combustible surface)

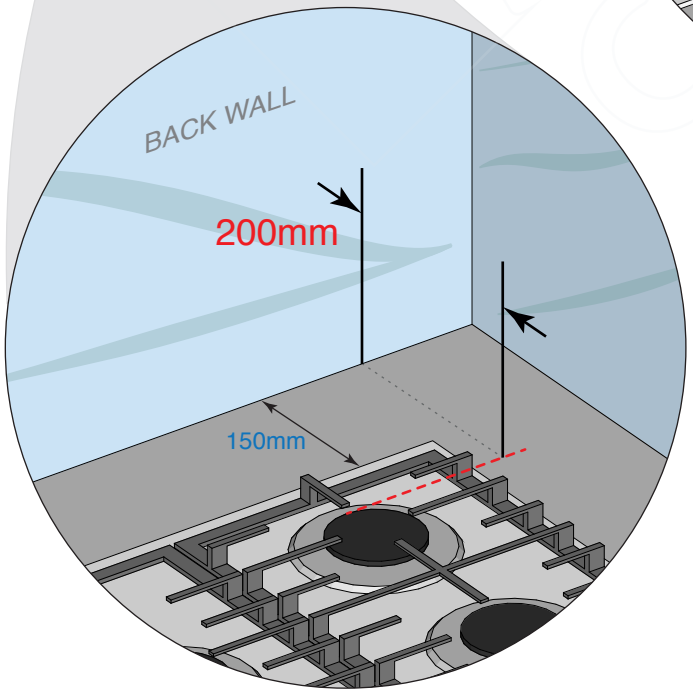
COOKTOP PLACEMENT (BACK AND SIDE)

When designing kitchens with engineered-stone splashbacks (or any combustible surface), care must be taken to ensure that safety regulations are met. Please ensure Australian Standards are always followed. We are only providing our interpretation of these standards.

Note:
Australian Standards AS/NZS 5601.1:2010, indicates that any combustible surface closer than 200mm to the periphery of the nearest burner of a domestic gas cooking appliance must be protected in accordance with Clause 6.10.1.2.





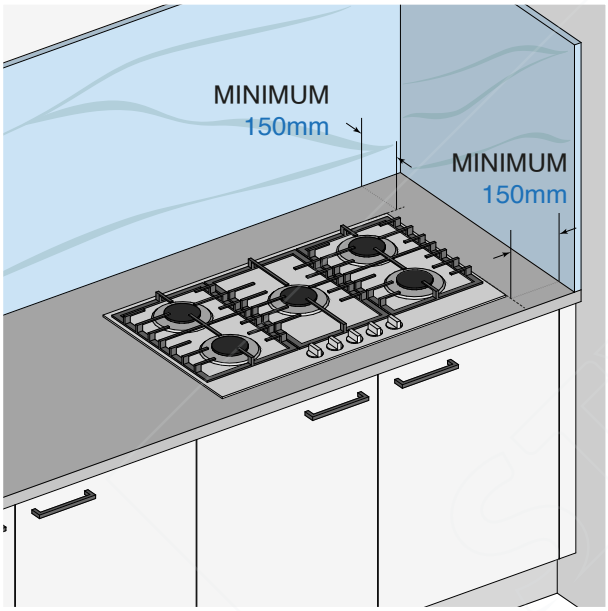


GUIDANCE ONLY

Compliance

Therefore, as a rule of thumb, we suggest that engineered stone splashbacks or any combustible splashback must be placed at least 150mm from the edge of any gas cooking appliance. This clearance will satisfy the requirements for most cooktops, however, the manufacturer's instructions must be followed.

GAS COOKTOPS

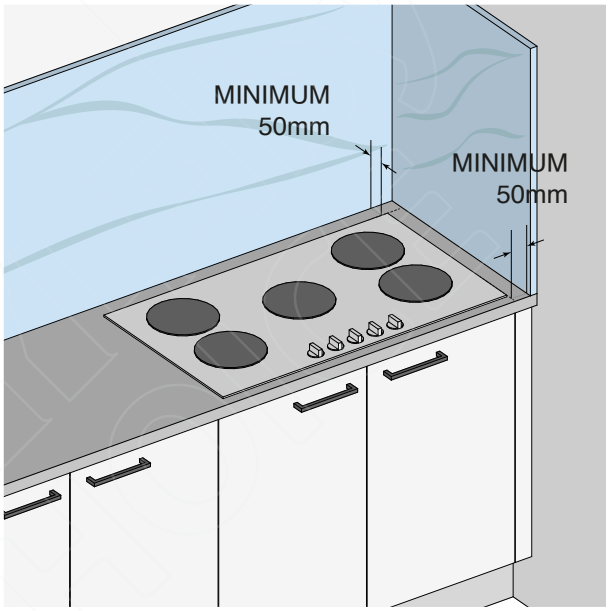


GUIDANCE ONLY

Place gas cooktops at least 150mm away from the splashback.

This means that the benchtop depth must allow for the 150mm clearance plus the splashback thickness.

CERAMIC AND INDUCTION COOKTOPS



GUIDANCE ONLY

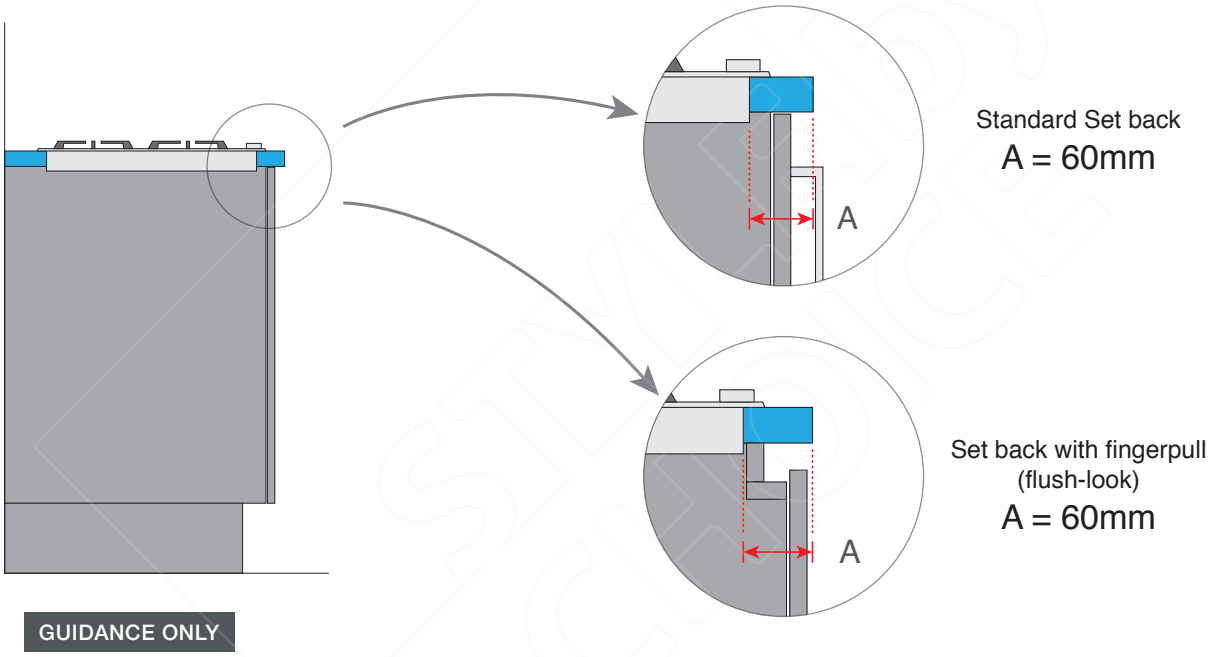
Place ceramic and induction cooktops at least 50mm away from the splashback.

This means that the benchtop depth must allow for the 50mm clearance plus the splashback thickness.

These guidelines are applicable to the vast majority of cases, however, there may be cases where these guidelines may not satisfy the Australian Standards. In such cases, care must be taken to ensure Australian Standards are followed. These guidelines do not apply to non-combustible surfaces such as natural stone, glass or tiled splashbacks.

COOKTOP PLACEMENT (FRONT)

GAS COOKTOPS



GUIDANCE ONLY

The setback required from the front of the benchtop to the cooktop cutout depends on whether the cabinet has handles or not and the benchtop overhang used. Examples above show both with handles and handle-less with their respective overhangs.

Compliance

AUSTRALIAN STANDARDS - 6.10.1 Domestic Gas Cooking Appliance

6.10.1.1 Clearance around a gas cooking appliance

The required clearance between a gas cooking appliance, other than those covered under Clause 6.10.1.7, and a combustible surface shall be at least that given in Figure 6.3 and as follows:

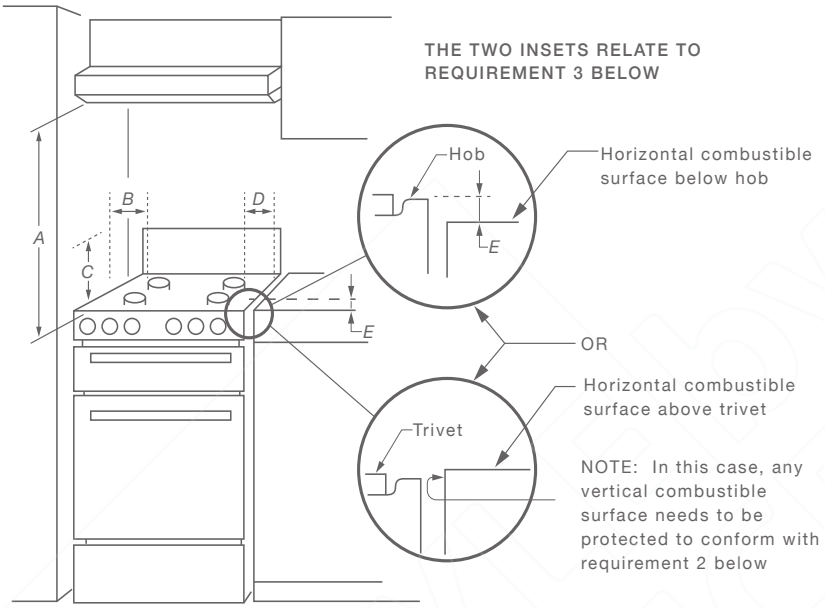


FIGURE 6.3 REQUIRED CLEARANCES AROUND DOMESTIC GAS COOKING APPLIANCES

a. Requirement 1 Overhead clearances — (Measurement A)

Range hoods and exhaust fans shall be installed in accordance with the manufacturer's relevant instructions. However, in no case shall the clearance between the highest part of the hob of the gas cooking appliance and a range hood be less than 600mm or, for an overhead exhaust fan, 750mm. Any other downward facing combustible surface less than 600mm above the highest part of the hob shall be protected for the full width and depth of the cooking surface area in accordance with Clause 6.10.1.2. However, in no case shall this clearance to any surface be less than 450mm.

b. Requirement 2 Side clearances — (Measurements B and C)

Where B, measured from the periphery of the nearest burner to any vertical combustible surface is less than 200mm, that surface shall be protected in accordance with Clause 6.10.1.2 to a height C of not less than 150mm above the hob for the full dimension (width or depth) of the cooking surface area. Where the gas cooking appliance is fitted with a 'splashback', protection of the rear wall is not required.

c. Requirement 3 Additional requirements for free-standing and elevated gas cooking appliances — (Measurements D and E)

Where D, the distance from the periphery of the nearest burner to a horizontal combustible surface is less than 200mm, then E shall be 10mm or more, or the horizontal surface shall be above the trivet. See insets in Figure 6.3.

NOTES:

1. Requirement 3 does not apply to a free-standing or elevated gas cooking appliance which is designed to prevent flames or the cooking vessels from extending beyond the periphery of the gas appliance.

2. The 'cooking surface area' is defined as that part of the gas appliance where cooking normally takes place and does not include those parts of the gas appliance containing control knobs.

3. Consideration is to be given to window treatments when located near cooking appliances.

6.10.1.2 Protection of a combustible surface near a gas cooking appliance

In Australia, any combustible surface within the clearance zone specified in Clause 6.10.1.1 shall, in order to meet the requirements of Clause 6.2.5, be protected by one of the following methods:

1. Fixing ceramic tiles with a minimum thickness of 5mm to the surface.

2. Fixing toughened glass with a minimum thickness of 5mm to the surface, provided the glass is approved by the manufacturer to be suitable for the application.

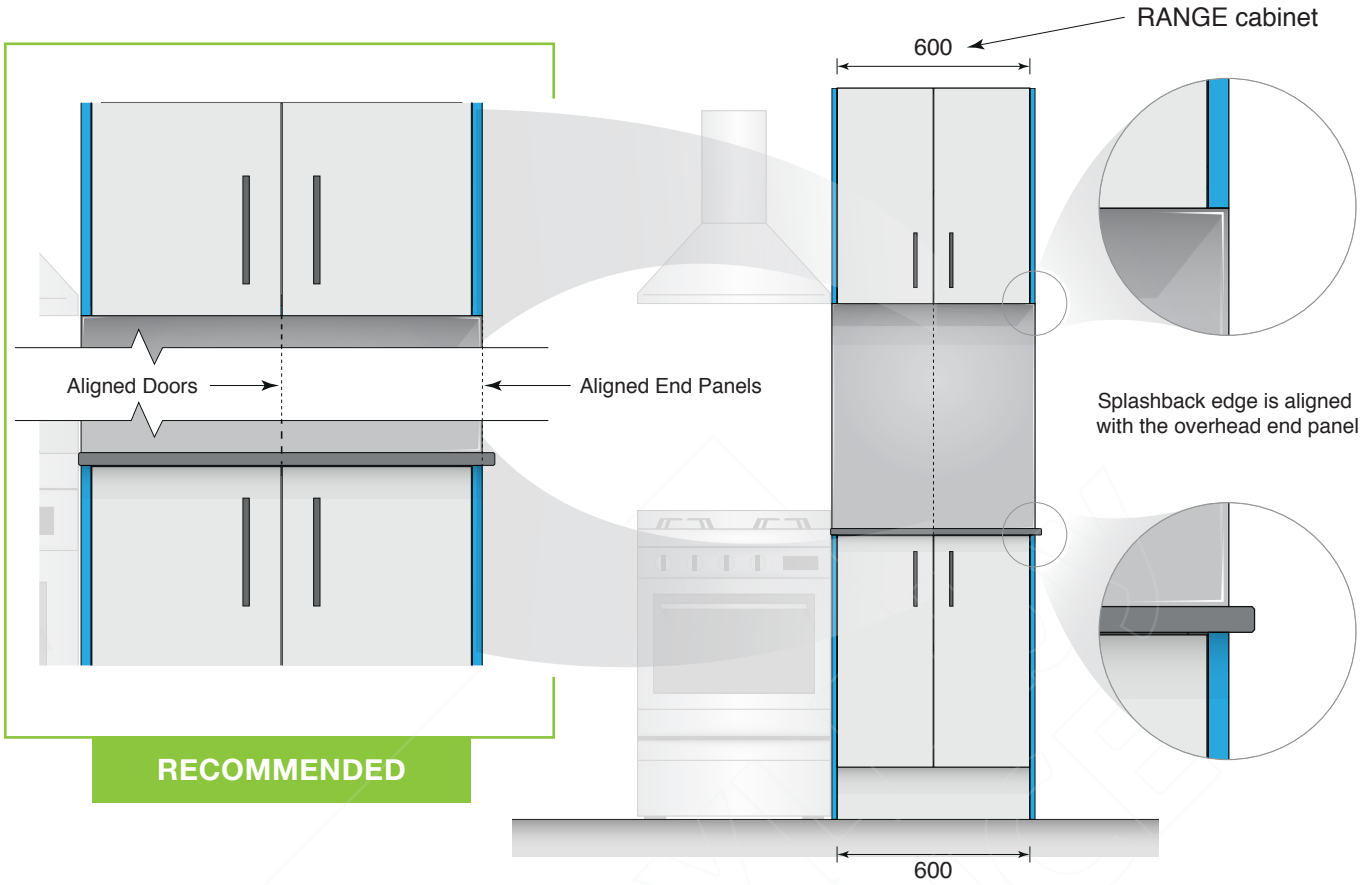
3. Attaching fire resistant material to the surface and covering with sheet metal with a minimum thickness of 0.4mm.

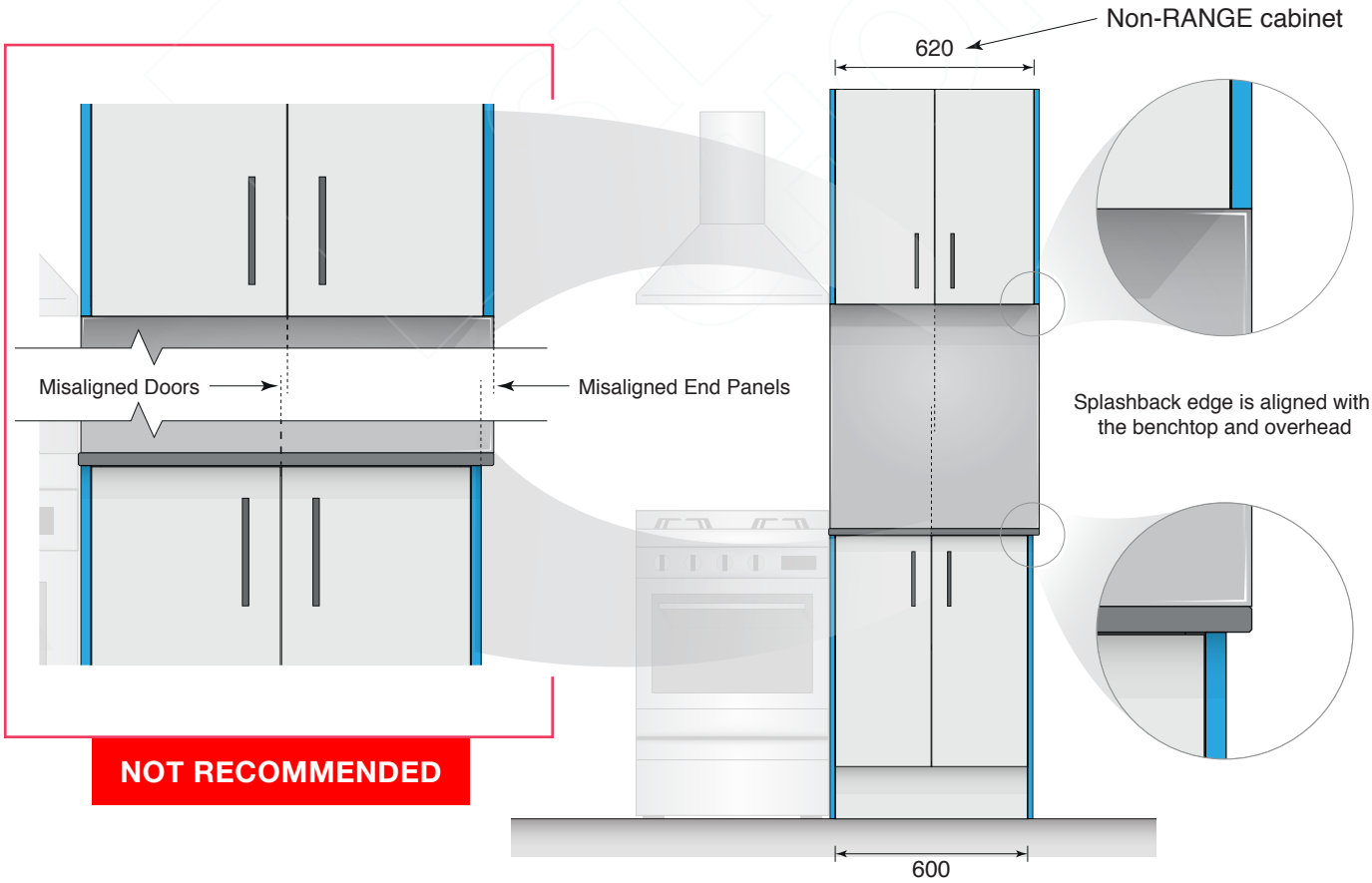
In New Zealand, protection shall be in accordance with Table C1 (Appendix C) for the applicable facing and backing materials.

NOTE: Toughened (tempered) glass should comply with AS/NZS 2208.

General Information

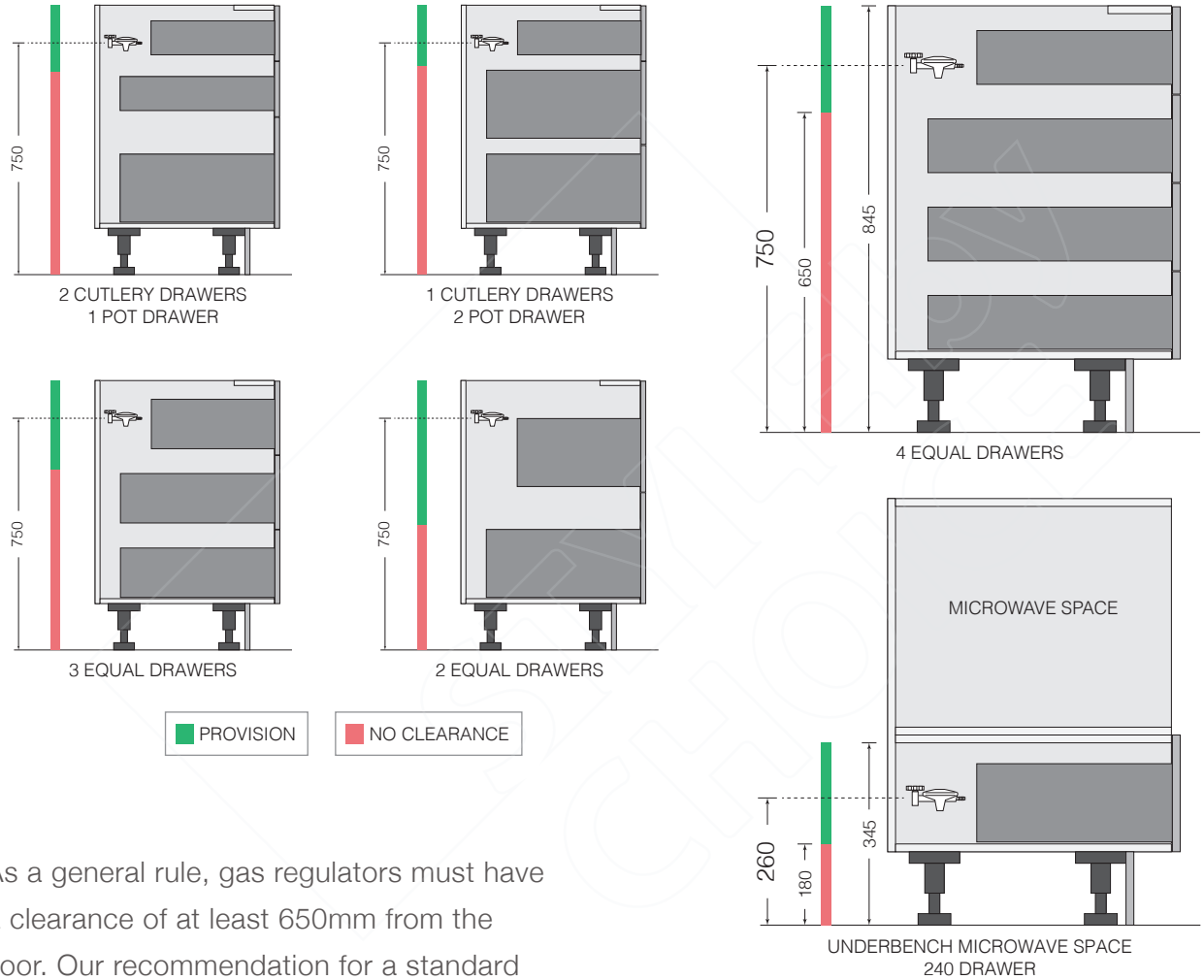
ALIGNING OVERHEAD & BASE CABINETS





GAS REGULATOR PLACEMENT - Inside Drawer Cabinets

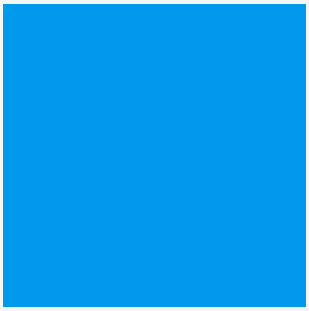
Drawer cabinets next to gas appliances must have special provisions for Gas Regulators. This typically means having a shorter top drawer. In a standard case, a 500mm drawer runner will be shortened to a 400mm drawer runner. This guide shows where gas regulators may be installed on common drawer combinations as well as underbench microwave cabinets with drawers. The green zone highlights the provision for regulators.



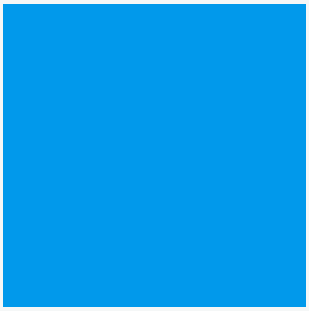
As a general rule, gas regulators must have a clearance of at least 650mm from the floor. Our recommendation for a standard 905mm cabinet (incl. benchtop) is to have the regulator 750mm from the floor.

Gas regulators are usually preferred on the right hand side of the gas appliance. However, in situations where hardware cabinets such as bins are placed on the right hand side, regulators can be placed on the left hand side. If there is a microwave cabinet on the right hand side, the regulator can be placed below the microwave provision at approximately 260mm from the floor.

Any cabinet that has a provision for a gas regulator, must be at least 300mm wide for access. If this is not possible, regulators can be placed in the adjacent cabinet.

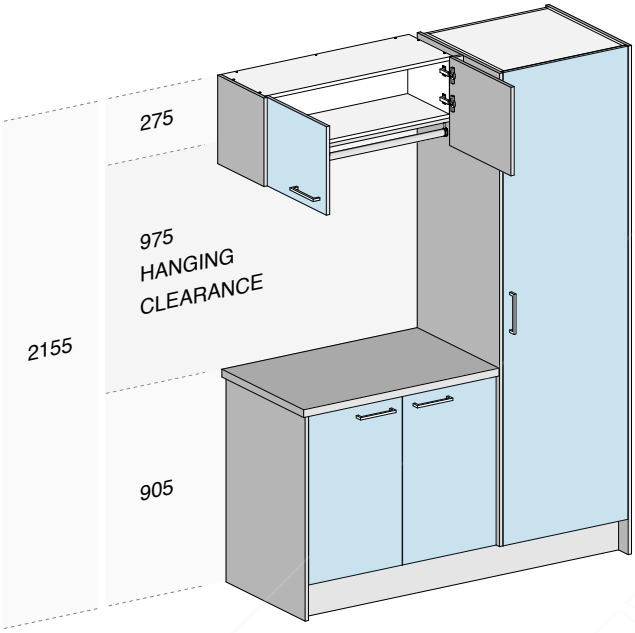


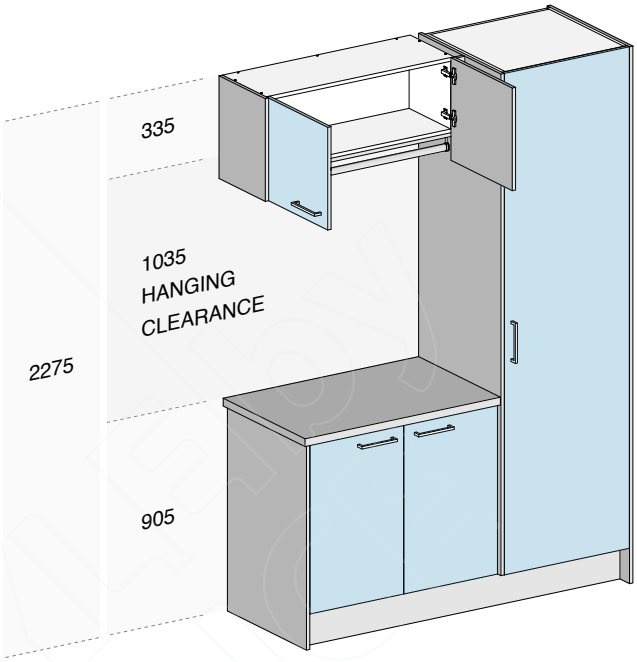
LAUNDRY DESIGN

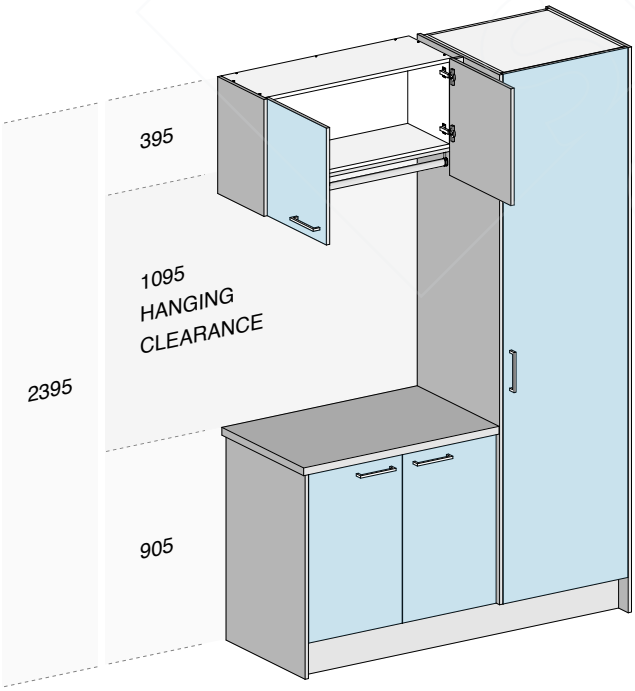


Hanging Clearance Heights

Overall cabinet heights are the same in the laundry as it is in the kitchen. However, overhead cabinets can be made shorter to allow for a larger clearance for hanging garments.

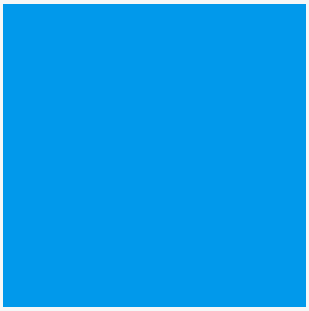






RECOMMENDED HANGING CLEARANCE

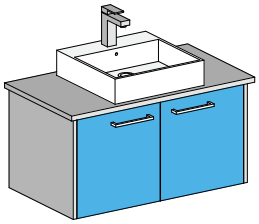
Overhead Height / Overall Cabinet Height	275	335	395
2155	975	975	855
2275	1095	1035	975
2395	1215	1155	1095



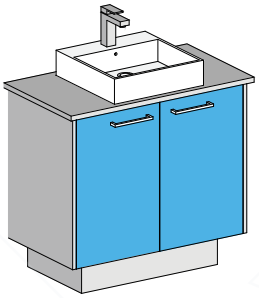
VANITY DESIGN

Vanity Sizes Guide

The recommended heights for benchtops are 750mm and 850mm. However, you can nominate your own height as required. The carcase heights are fixed and the kickboards vary to suit your nominated overall height. Vanities can be designed with or without kickboards.

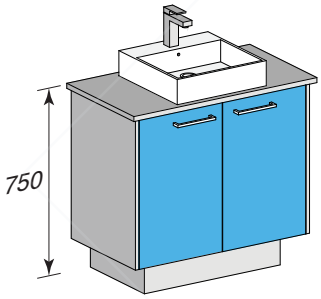


Vanity without kickboard

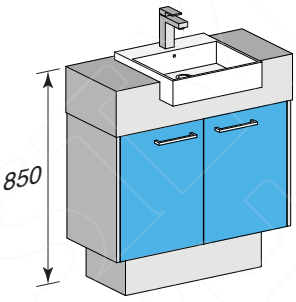


Vanity with kickboard

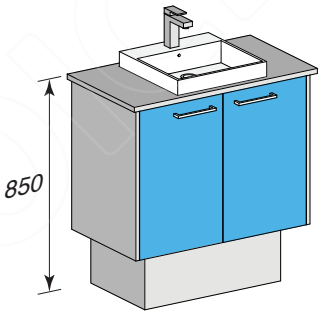
OVERALL VANITY HEIGHT OPTIONS (Determined by Basin Styles)



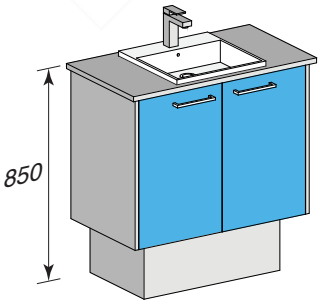
ABOVE COUNTER



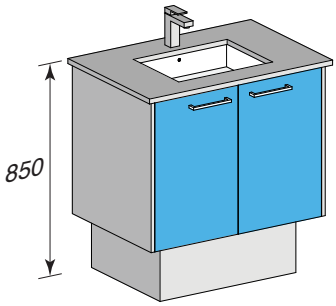
SEMI-RECESSED



SEMI-INSET



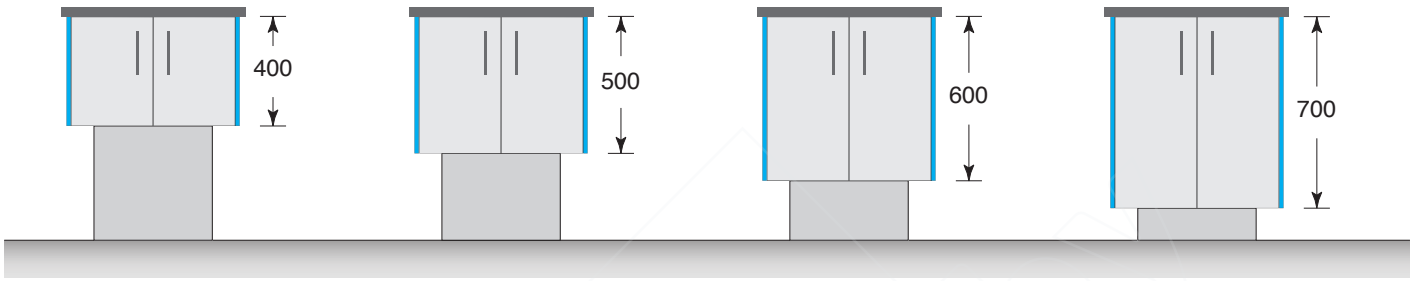
INSET



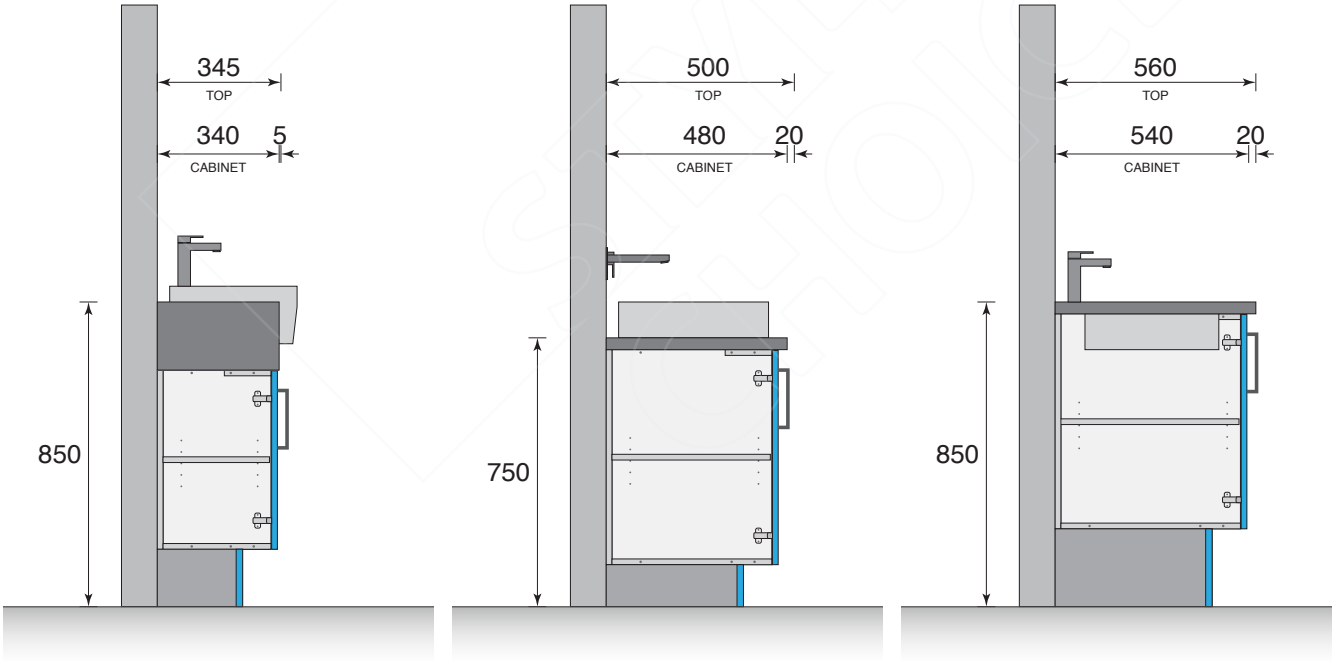
UNDERMOUNT

Design Note:
Cabinet height is to suit basin style. Recommended maximum height to top of benchtop is 850mm unless above counter basin.

CABINET HEIGHT OPTIONS



CABINET DEPTH OPTIONS (Determined by Basin Styles)



Suitable for Semi-Recessed basins only.

Most suitable for Above Counter basins where taps are wall mounted.

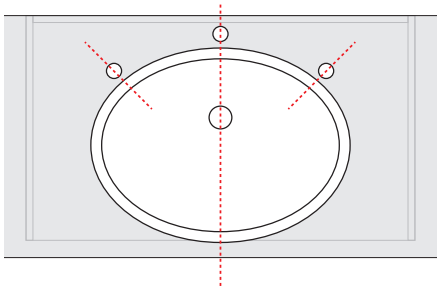
This is our standard depth which can accommodate Undermount as well as Inset, and Above Counter basins.

Tap Holes for Basins

TAP HOLE POSITIONING & CLEARANCES GUIDE FOR BASINS

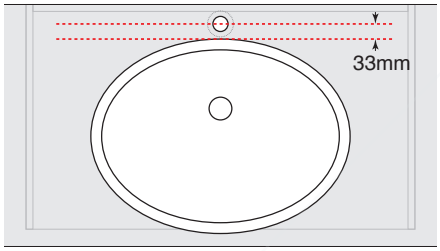
Please use the following guide for positioning tap holes around basins. This guide is applicable for taps with 35mm wide body, with bases that are at most 60mm wide.

Positioning taps around basins

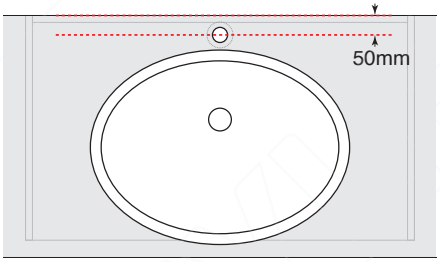


Basin tap holes may be centred to the basin or offset to a side.

Clearance rules for positioning taps around basins

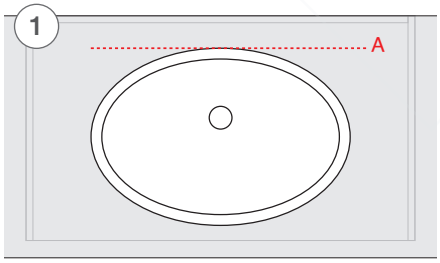


RULE 1: There must be AT LEAST 33mm from the centre of the tap hole to the outside edge of a basin.

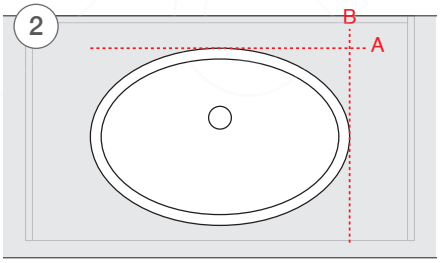


RULE 2: There must be AT LEAST 50mm from the back of the benchtop to the centre of the tap hole to allow for 10mm thick tiles.

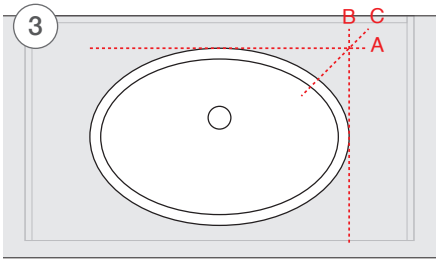
Please use the following steps to offset a tap hole to a side of the basin



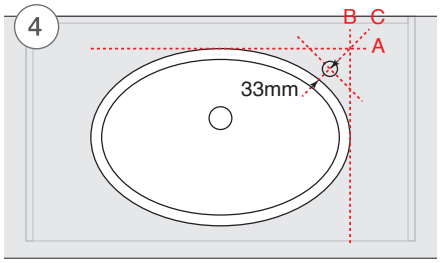
Visualise a line (A) tangent to the back edge of the basin.



Visualise a second line (B) tangent to the side edge of the basin.



Visualise a third line (C) that intersects both Line A and B and runs 45 degrees towards the edge of the basin.

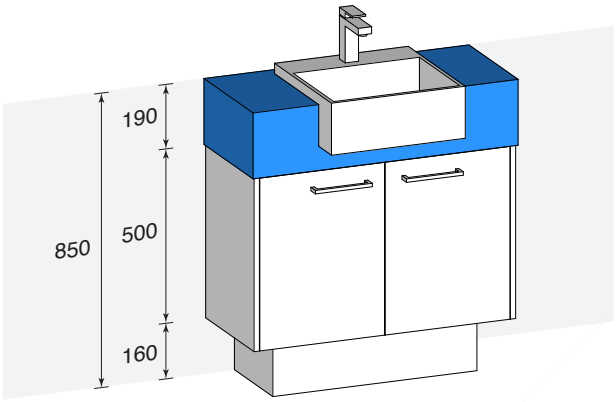


Place the centre of the tap hole along Line C, as per rule 1.

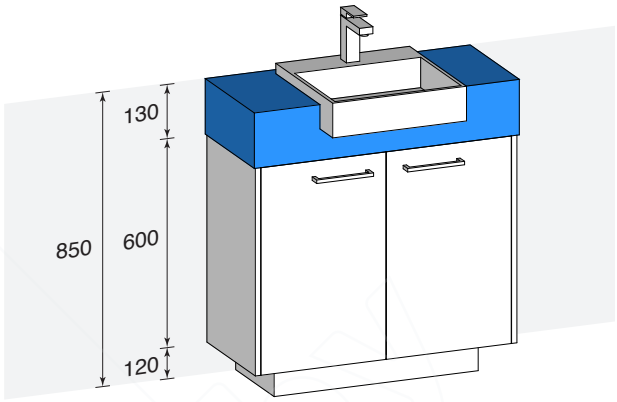
Semi-Recessed Basins

BOX TOP VANITIES FOR SEMI-RECESSED BASINS

Semi-recessed basins are a good choice when designing with limited space. They can be placed on vanities with narrow cabinets and box tops. Based on popular semi-recessed basins, various designs from the lifestyle range can be used as illustrated below.



190 high box top with
500 high cabinet = 160 kickboard
400 high cabinet = 260 kickboard



130 high box top with
600 high cabinet = 120 kickboard
500 high cabinet = 220 kickboard
400 high cabinet = 320 kickboard*

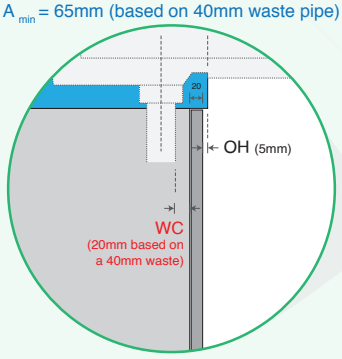
* option for kickboard or no kickboard

It is recommended that the benchtop overhang does not exceed 5mm. If larger overhangs are required, please refer to basin specifications to determine whether dimension 'A' as shown below allows for sufficient waste clearance 'WC'. See below for recommendations for dimension 'A' for a 40mm waste pipe. More clearance will be required if waste flange is low enough to be inside the cabinet.

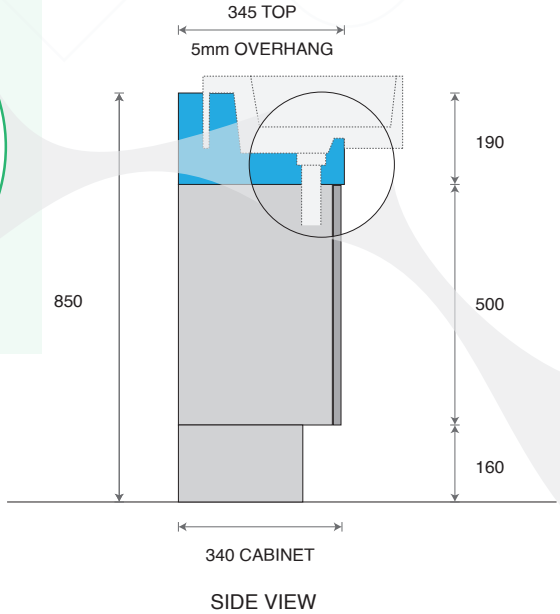
STANDARD

STANDARD CABINET

A_{min} = 65mm (based on 40mm waste pipe)



A = Waste centre to edge of benchtop
OH = Overhang
WC = Waste clearance

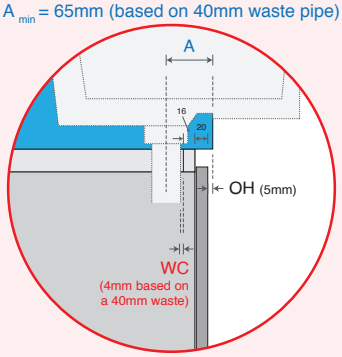


SIDE VIEW

CAUTION

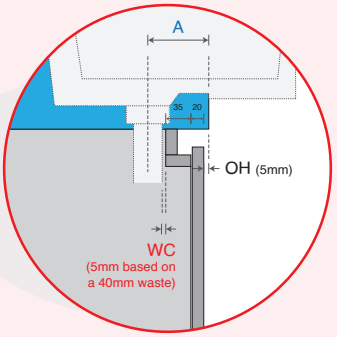
SHADOWLINE

A_{min} = 65mm (based on 40mm waste pipe)



FINGERPULL

A_{min} = 80mm (based on 40mm waste pipe)



STYLE by CHOICE

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