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Making kitchen doors & drawers



No need to get in a flap if your units are looking a bit tired. Here is a groovy new door and drawer makeover

Making over a kitchen is a cheaper and infinitely more satisfying way to turn an existing kitchen into a new one without all the added cost and disruption of ripping out everything. Nevertheless it can seem daunting – but follow our A2 plans and guide and you won't go wrong.





1 The only awkward frame components to shape are the door top rails. These are held together with double-sided tape and carefully bandsawn to shape then trimmed (see article on arch top door jigs on page 54)

2 Do the scribing cuts first but make sure the fence is exactly parallel to the mitre guide slot. Note the subfence to prevent components slipping into the cutter opening

Planning

Kitchen units are standard sizes so the A2 drawings reflect that. They can however be resized to suit odd size carcasses.

If you are planning any serious changes to the kitchen layout then you should plot the unit positions on graph paper first.

From this, or by measuring your existing units, you can now work out the number of drawer and door fronts and any decor panels to clad exposed ends of cabinets.

You need to make a list of the overall sizes too – so you can work from this. Exact component size will depend on your chosen construction method.

Profile and scribe

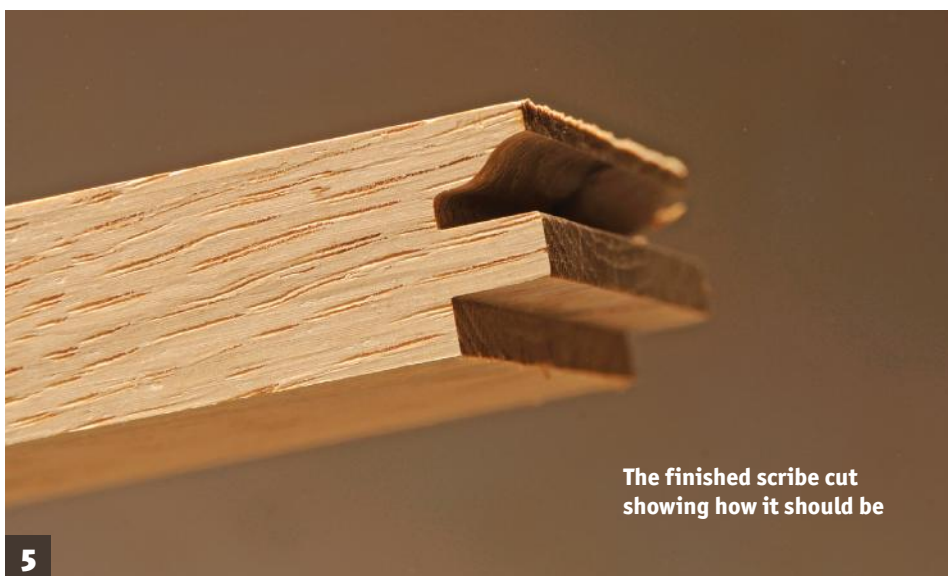
One of the simplest ways is using a profile and scribe cutter set. This uses either a two-part or reversible cutter set, or a single multi-profile cutter. Whichever you use it needs a $\frac{1}{2}$ in router mounted in a table. Similarly, if you choose raised panels you need a large two or three wing panel raiser in the router table. Since the horizontal rails plug into the vertical stiles, the typical tongue length on the rails is 19mm ($\frac{3}{4}$ in) overall to



3 Check the bearing is flush to the subfence and adjust the cutter until the correct part is opposite the end of the workpiece



4 Doing a test scribe cut with a waste section. Note the support behind to reduce breakout



The finished scribe cut showing how it should be



6 Doing the same operation on the already shaped arch top rail using the mitre subfence to support it properly



7 Start the process of profile moulding by lining up the mirror image part of the cutter with the already cut scribe part of the joint

be added to the rail dimensions. There are several different moulding styles available and shaped top rails are possible because these cutters have bearing guidance (see page 54 onwards for how to make an arch top jig).

Tongue and groove

This method gives a simple appearance producing a square frame that fits together just like the profile and scribe method. In both these cases, it also creates a groove for a panel, raised or flat, to slip into. The resulting effect with a flat panel is simple and clean lined, and could be described variously as 'country', Shaker, or contemporary, depending on the wood, finish and overall kitchen design. The rail tongue addition is usually 19mm overall to be added to the rail dimensions. You need either a T&G grooving cutter set or straight cutters, both used on the router table.

Dowelled

If you have an accurate dowelling jig you can join the frames with it. However, there is an issue where the stile and rail



8 Do a test cut and check the faces are flush across the joint

meet if you want a moulded inner edge.

Method A – Do a dry assembly with the panel not present and run around with a bearing guided cutter – the bearing must of course not run in the panel slot – and clean the corners square with a sharp chisel to create a masons mitre.

Method B – Machine each component separately and do a stopped moulding, usually a chamfer.

Biscuits

A similar situation to dowelling the joints. You will need size 20 biscuits in stacked pairs to give sufficient strength.



9 Place components with the 'seen' and to-be-moulded side downwards and mark the 'up' side on all components next to the edges that will be moulded to avoid machining mistakes

A very full size panel will aid stability. To do stacked slots you will need a packer to sit the jointer on for the top slot, or turn the stock over. A static jointer set-up is sensible for consistent results and safe working. Ensure components are wide enough to receive a 20 size slot without it breaking out.

Door hinges

You need to be able to accurately insert modern Euro pattern hinges into the reverse of the doors. Set out the



10 Machine the arch shape by bringing the left-hand tip of the arch (reverse face showing) into the cutter and moving it in a smooth motion across the cutter, keeping it pressed against the bearing



11 Marking out the arch shape on a panel blank. Next add an arc 9.5mm larger and increase the shoulder height by the same amount – this will be the tongue that fits in the frame groove



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Cut out the arch and shoulders carefully on the bandsaw, keeping close to the line

positions to match the mounting holes in the carcass. To do the drilling, a 35mm hinge sinking bit is required. It must be mounted in a pillar drill with a sub table fitted for the doors to lie on while you do it. Some hinge sinkers will fit in a large router with a matching collet installed, often 10mm in size.

Drawer fronts

These are smaller versions of the doors except it may not be possible to use the same construction method if you have a fancy shape on the doors. Instead it may be better to have a single solid drawer panel, possibly with breadboard ends to keep it flat, and then plant a separately moulded front piece onto it. This will be made using a template pinned to the blank and machined on the router table. The drawer fronts need to be screwed onto the drawer boxes, leaving an even gap all around.



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The finished panel ready for sanding prior to assembly



13 A one-part profile and scribe cutter (left), an ovolo panel raiser with a back cutter to form the tongue (centre), a tongue and groove cutter (right)

Finishing

Almost any type of finish is possible but the more easy to clean, the better. Varnish, paint or Danish or other oils are all suitable.

Use several coats and rub down between coats for a smooth finish.

Fitting

The drawer fronts are mounted from within the drawer boxes using four screws countersunk into the drawer box. Double tape the fronts on first so you get the position right, then open the drawer and screw in place.

Doors

Screw the hinges into the holes on the doors but fit the mounting plates separately inside the carcass. Mount the hinges to the plates and adjust the fit. Be aware that where two hinges mount either side of a divider, they will need more offset, and hinges are made specifically for that purpose or there are alternative mounting plates. ■



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Machining the straight panel edges with the blank face down



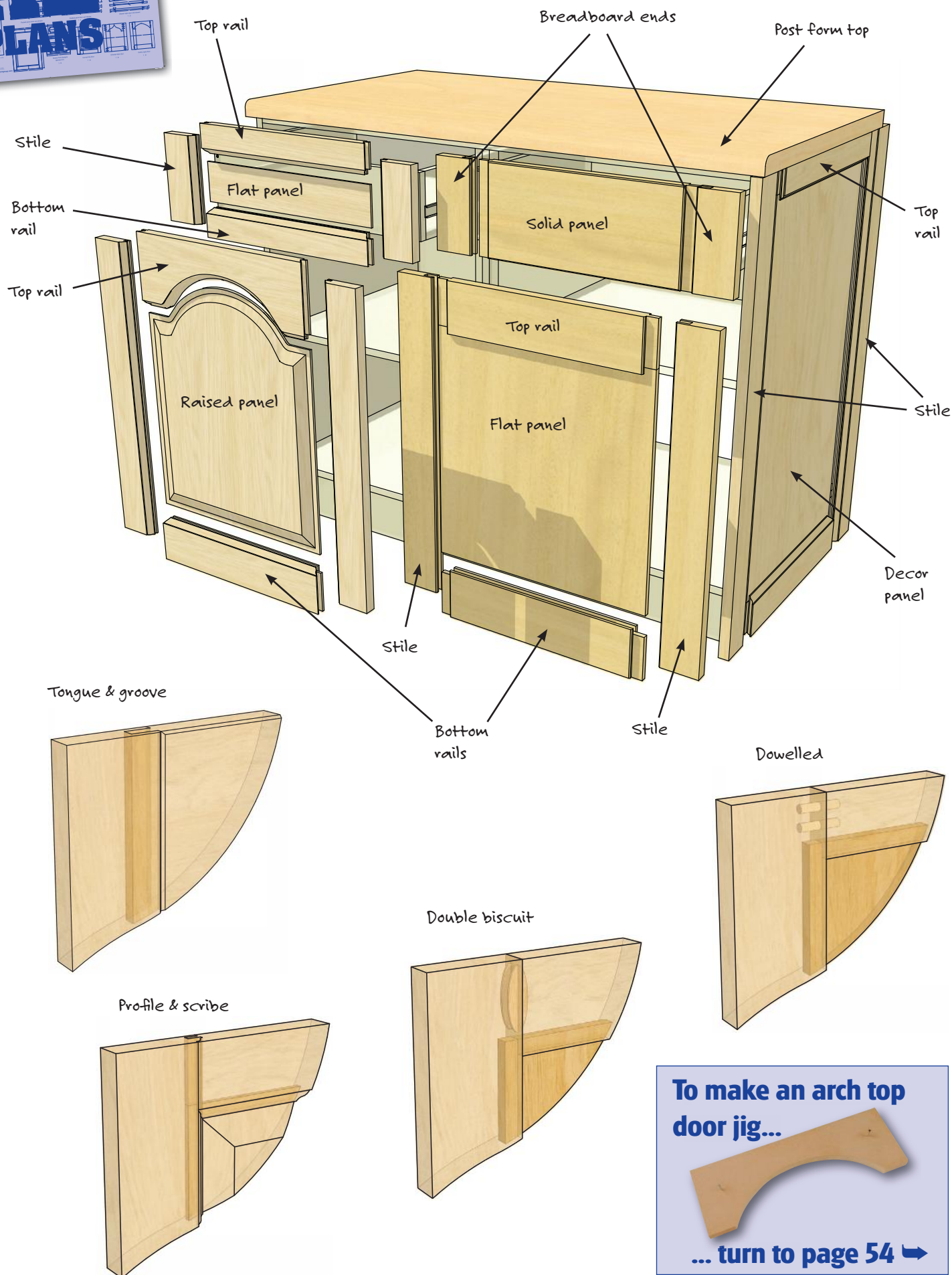
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An unusual answer for machining the arch shape using the cutter opening to help 'lead in' and avoid the panel being kicked away by the force of the cutter. Once the coarse cut is done, remove the fence and freehand the last bit, running against the bearing



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The finished door and drawer fronts clamped up. The horns will be sawn off once dry



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