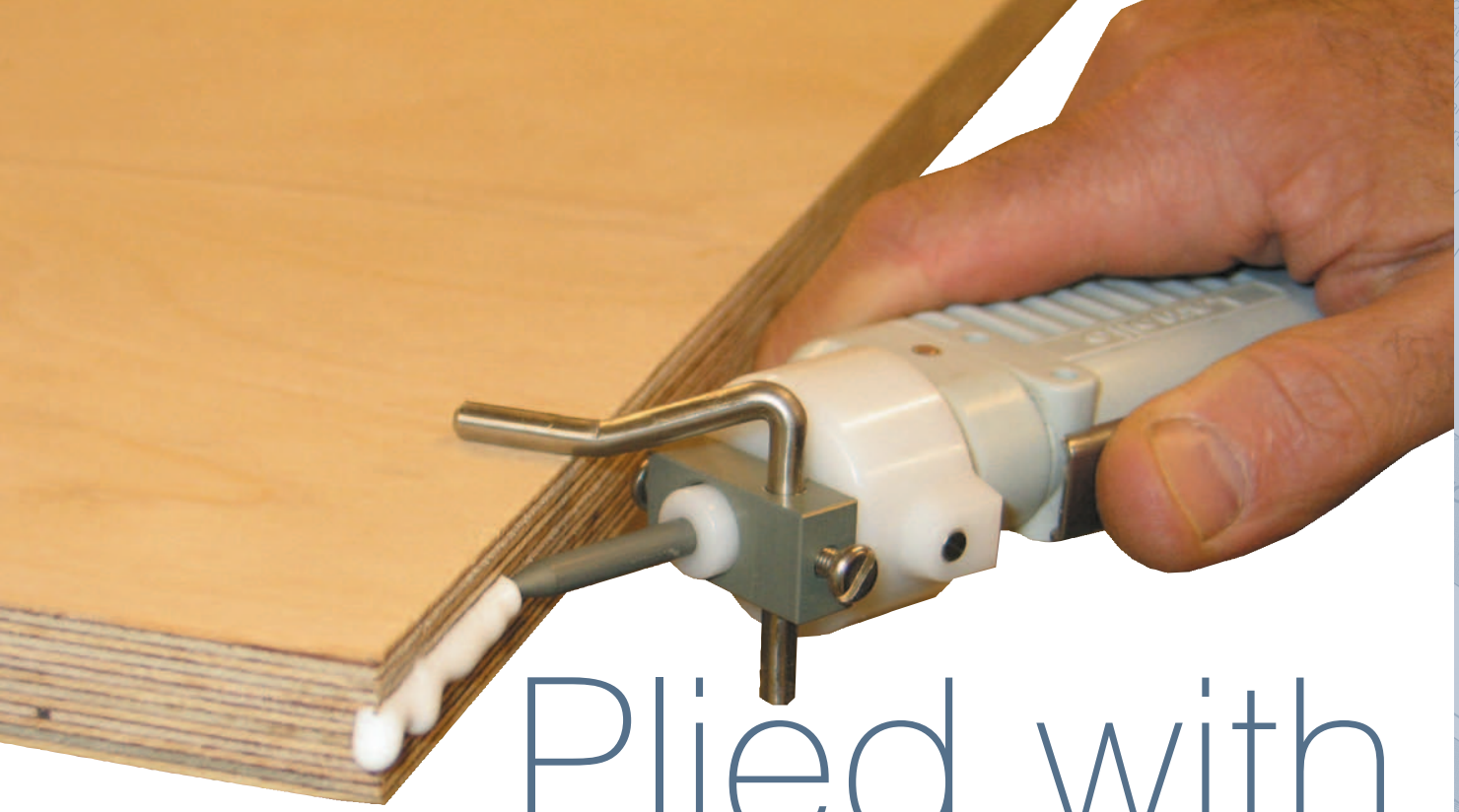


Plied with veneer

John Lloyd finally finds a good home for some impulse-bought veneer in part three of his series on making a wall-hung tool cabinet

Above **The LK Edge gluing nozzle in action**

Several years ago, when I was doing a bit of veneer procurement for a bespoke furniture-making project, I got rather carried away and bought a whole packet of 'Iced Birch'.

I suspect this might be a recognised disease in furniture-makers, possibly exacerbated by good sales technique on the part of veneer suppliers. "If you just buy the six leaves it'll be £20, but as it's my last packet of this veneer I could do you the whole lot for £50!"

Well, with this sort of bargain, you'd be a fool not to take him up on his extraordinarily kind offer. Put aside worries that with too many deals like this the poor man won't be able to put food on the table for his wife and ten children. Just hand over the money and run away clutching your ill gotten gains before he realises what a terrible mistake he's made, and changes his mind!

Worse than the veneer merchants you visit of your own free will are the chaps that come round in cars, with the boot stuffed full of lovely veneer. They arrive with a glint in their eye and a confident smile, and with good cause! At the sight of his car coming through the gate I have already resolved not to buy anything, but it wouldn't harm to just see what's on board. Before you know it you have yet another bargain packet of veneers, which are destined to be a vital part of a making job that is sure to be just around the corner!

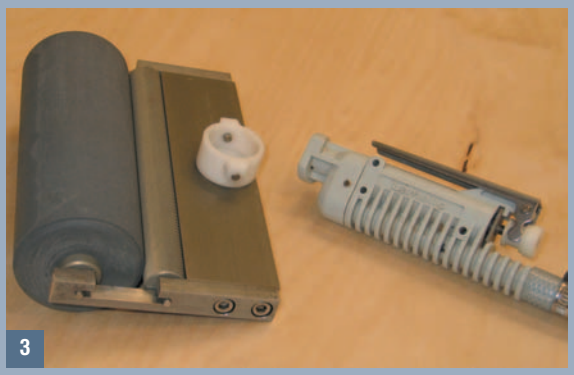
Backburner

The job I needed the birch veneer for was unexpectedly, 'put on the back burner', so I didn't actually need any of it in the end, and I've been looking for ways of using it up ever since. Which means that very soon there is likely to be resurgence in the use of birch in the world of furniture-making, if not internationally, certainly in my corner of Sussex.

So here I am making a tool cabinet out of birch ply, which, in my introduction to this project, I suggested was to be a good looking, but workmanlike piece. So, hardly the obvious opportunity to break out the birch veneer. Well,

1 **Lamello LK (5kg) glue – 'a Dalek on wheels'**

2


3


6


7

2 **LK glue pistol**

3 **LK 180 mm veneering surface roller showing bayonet fitting**

4 **Trimming veneer with straightedge and scalpel**

5 **Shooting veneer edges using shooting board, bench plane and MDF strip**

6 **Taping across veneer joint with Sellotape**

7 **Taping along veneer joint**

8 **LK biscuit jointing nozzle**

9 **Various LK nozzles**

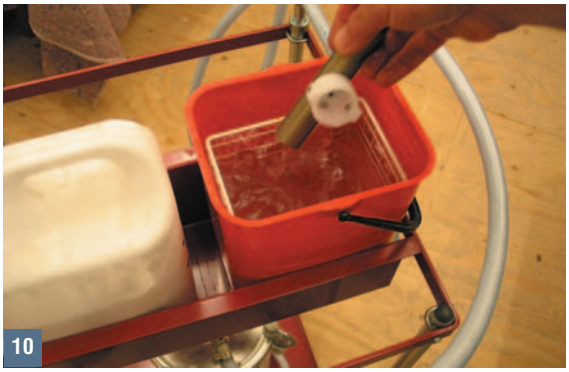
you need a bit of 'pride of ownership' in anything you make for yourself. The iced birch has a lovely ripple in it, and the ply has several of those oddly-shaped patches let into the surface to hide some imperfections. And anyway, this tool cabinet is going to be staring at me for many years, I hope. There's the chance too that clients might visit the workshop and be so impressed with it that they will immediately commission a piece of furniture covered in birch veneer!

Not only that, but I have a rather natty looking Lamello gluing system which needs putting through its paces in, amongst other things, the-gluing-large-areas-of-veneer department.

Forward

The giant leap forward many furniture-makers make in the veneering of large areas is to use a vacuum press. I have had one in some form or another for about ten years. However, I have never made any investment in gluing equipment, so using this state-of-the-art, pressurised gluing system in place of my usual motley array of brushes and paint rollers is the perfect way of seeing what I've been missing.

Before the glue comes into play the veneer needs to be prepared. The width of veneer and the size of the doors lends itself perfectly to halving the veneer on each door, and one end of the leaves has more figure than the other. So, the highly figured ends will go on the door fronts and the other end will be the balancing veneer. To get everything looking symmetrical requires four consecutive leaves of veneer, which will be book-matched on each door.


10

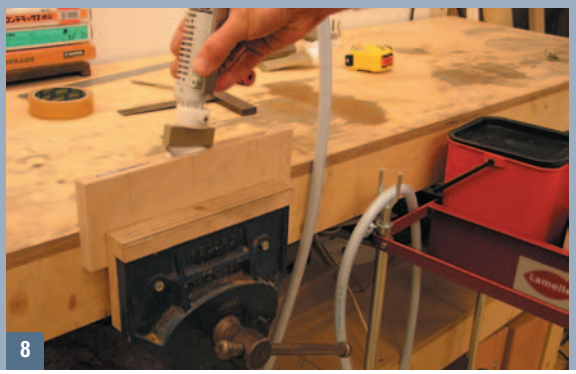
Overhanging

The ply, which forms the groundwork, is cut a little too big,

11


4


5


8


9

and the veneer is then cut slightly smaller. That's to prevent there being any veneer overhanging the edges of the ply. With the pack of four leaves cut to size with a scalpel and straightedge, the edges which are going to meet down the centre of the book-match need to be shot with a plane to stand some chance of achieving an invisible glue line. Shooting the edges of veneers is a doddle if you possess a shooting board. If you don't have one I suggest you find a few off-cuts of MDF/ply and make one!

The four pieces of veneer are kept as a pack with the edges to be joined all lined up together. The pack is then placed onto the shooting board with the veneer hanging just a millimetre or two over the edge.

A fairly substantial piece of MDF 25mm (1in) is then placed on top of the pack, again just a millimetre or so back from the edge of the veneer. Pressure applied to the MDF with one hand will hold the veneers flat and stop them slithering about, while the other hand can be used to shoot the edges of the veneer with a bench plane lying on its side. A nice, sharp blade with a fine setting and the minimum amount of unsupported veneer edge are critical areas for success here. If there's too much veneer protruding from under the MDF it will just flap about and make accurate shooting impossible. Once a full-length shaving has been achieved, the pairs of veneer are book-matched and stuck together prior to pressing.

Press work

Gummed paper with lots of holes in it can be used to joint the veneer, but I favour clear Sellotape, as you can see exactly what sort of joint line has been achieved through the tape. Taping across the joint line gets everything lined up, and then a piece running the length of the joint stops things moving about and getting out of register during pressing.

I used to always use UF glue for press work. However, this generally means creating a certain amount of waste through mixing too much glue, or a certain amount of distress through mixing too little glue, followed by having to endure six hours of a vacuum pump droning away while it cured.

I have recently switched to PVA

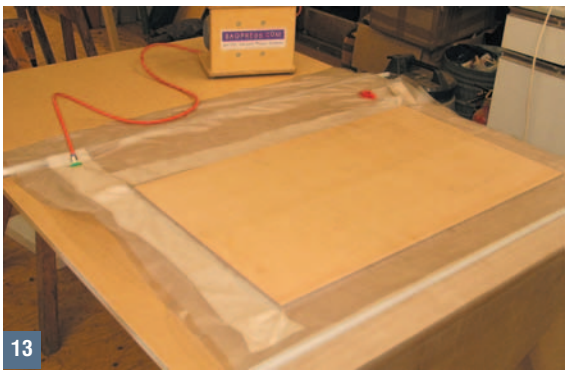
10 Water filled reservoir to prevent nozzles form getting bunged up with glue

11 LK gluing station trolley with reservoir

12 LK porous rubber roller in use

13 Pressing veneered door panel in vacuum bag


12


13

14 **LK Dalek showing glue reservoir**

15 **Pressure dial, pressurising valve and 'thumb screws'**

16 **LK3 (3kg) Dalek on wheels and LK5 (5kg) on trolley**

17 **Vacuum bag and breather fabric**

18 **Cleaning nozzle by pumping water through. An alternative to using the tap fitting**

glue for this sort of work, mainly because I discovered that PVA is not just interior grade and exterior grade – there are some 20 various different forms.

There is one which is self cross-linking and water resistant, and which also has a relatively short press time. It is perfect for veneering, and also for laminating and curved work.

The Lamello LK gluing system consists of a stainless steel container which houses a plastic reservoir for glue – 3kg, 5kg or 10 kg. With the plastic reservoir full of glue, the lid is secured with screw clamps, making it look a bit like a pressure cooker or a diving bell.

Set into the lid is a pressure gauge and a valve, the sort you would normally expect to find on the wheels of your car. A car tyre pump is then used to pressurise the container until the needle gets to the red line. This pressurising should be sufficient to squirt out all the glue in a full reservoir, with the position of the needle giving an indication as to how much glue remains without having to de-pressurise and look inside.

Nozzles

There are loads of cleverly shaped fittings and nozzles for this gluing system, all of which are easily interchanged using a simple bayonet fitting on the 'glue pistol'. This, in turn, is connected to the pressure cooker with a clear hose. The nozzles deal, of course, with biscuit joints, and they also deal very cleverly with joints that are notoriously annoying to quickly get glue into or onto. These include mortices and tenons, dowels, grooves of various widths, narrow edges and general surfaces. The one I need for veneering is the 180mm (7in)-wide porous rubber roller. Glue flow is controlled with an on/off trigger, and the amount of flow is easily varied with a threaded 'stop'.

Getting glue onto a large surface has never been so easy! With the flow set fairly low to avoid any nasty sticky surprises, the glue can be spread quickly and effortlessly over the surface. With the trigger released, final evening up of the glue is easily achieved with the roller. No glue on me or the surrounding area, just where it is required.

The taped veneer is then just positioned on the glued surface and taped in the mid point at the top and bottom of the panel. Having carefully slid the panel into the vacuum bag, a breathable fabric strip is placed along the sides of the panel, stretching back to the vacuum pump hose position, to ensure total evacuation of the air from all around the panel.

Press time

Using the D3 PVA glue means that the press time is quite short. Depending on temperature, I usually use a press time of about an hour, which is probably a bit generous. If you're feeling adventurous, both sides of the panel can be veneered at the same time, but there is definitely scope for getting into a sticky mess using this approach. F&C

Cleaning

Cleaning the gluing fittings is the next potential challenge, but Lamello has thought of this too, well, what would you expect from a Swiss company? The small fittings are removed from the pistol and kept in a plastic water-filled reservoir, and the pistol is kept in a plastic cup, also filled with water. The veneering roller can be kept in water or it can be attached to a bayonet fitting which screws onto a water tap, to flush the glue out.

Removing the Sellotape from the veneer can pull bits of veneer with it because it is very well stuck, having just been in a press for an hour. To avoid spoiling the veneer I've found that using a belt sander, with a fairly fine abrasive, can work well to just take the shiny plastic bit of the tape off. A bit of acetone deals with the sticky residue which is left. Don't use the belt sander at a high speed though, or the heat will just melt the tape. A belt sander, if used sensitively, can do remarkably fine work, but it can also eat its way through 0.5 mm of veneer very quickly.

In the next issue

Next month it's the final instalment, and John will be completing the doors and fitting out the interior of his tool cabinet