

USER REPORT

SAND-FLEE ST-1800

by Alan Baron

One of the frequently quoted features of the SAND-FLEE (Photo.1) is that it is lightweight. I think that deserves a comment before going on to discuss what the machine does and how well it does it.

Certainly the SAND-FLEE is lighter than probably any other drum sander of equivalent capacity on the market, but at something not far short of 40kg, it isn't just a bench top tool you simply tuck under your arm.

Of course, provided you don't have to move it from bench to bench, its weight is an advantage. It helps to keep the SAND-FLEE where you put it — though there is provision for bolting it to a bench or stand if you prefer.

Before receiving the test machine, I had a look at what people are saying about the SAND-FLEE on the Internet. I got the impression that a lot of those of who have seen it — including some who have actually purchased one — have tried to slide the machine into this or that pigeon-hole without success. Having now tested the machine, I think that's because it comes at sanding from a new direction.

The SAND-FLEE has a relatively slim precision ground aluminium sanding drum — a mere 2" (50mm) in diameter. The drum on this model, the SF-1800 is, 18" (457mm) long and is spiral wrapped with a 3" (75mm) wide strip of abrasive material.

Photo.2: The drum — note dust extraction at rear and shaft extension on right



Photo.1

The drum protrudes slightly through a slot in the 585mm x 540mm nickel coated steel worktable leaving very little room in front or behind for wayward fingers (as can be seen in the photos).

A 24" (610mm) extruded aluminium fence is supplied. This is supported and can be locked to the table at both ends.

Assembly

The machine arrived in a large carton (shipping weight 88lbs = 40kg) inside which were two foam packages, one containing the body of the machine, the drum and the fence; the other, the Baldor 1/3hp (250W) motor, with its stand and a bag of assorted fasteners.

The machine body is placed on a bench and the worktable lifted (it is hinged at the back) into its upright position to allow access to the interior of the sturdy sheet steel base.

It takes less than half an hour to install the drum (Photo.2), couple the motor to it and fix the motor to its base.

Adjustment

The SAND-FLEE is supplied with an abrasive strip already wound around the drum but before the machine can be run, it is necessary to adjust the height of the table. This is done by raising an apron under the front of the table to its full height, then lowering it until just the abrasive on the drum protrudes above the

table top.

Instructions for performing this adjustment are included on an accompanying DVD which also explains the machine's operation. A micro-adjustment knob (see Photo.3) under the left front corner of the table makes it easy to achieve the exact adjustment required.

Since only the rotating abrasive is above the table, the workpiece is fully supported on either side of the drum during sanding. This means, incidentally, that there is no point in applying excess pressure to the workpiece during sanding.

Operation

The drum rotates towards the operator at 1435rpm. The workpiece is placed on the front of the table and sanded by moving it over the drum towards the back.



Photo.3: Table height micro-adjuster



Photo.4: 2.5" dust port



Photo.5: Dovetail box test-piece



Photo.6: Sanding dovetail tails



Photo.7: Dovetail box sanded with 120grit abrasive



Photo.8: Sanding the edge of an outside curve

When the drum height has been adjusted correctly, little effort is required but the sanding effect can nevertheless be vigorous when using low grit abrasives.

There is very little vibration and the machine is surprisingly quiet.

Remarkably, most of the dust (the makers say 85%) stays inside the machine but there is a dust port (Photo.4) that accepts a standard hose from a Shop-Vac (or similar extractor)

Thin Workpieces

Flat workpieces down to four or five millimetres in thickness can be safely

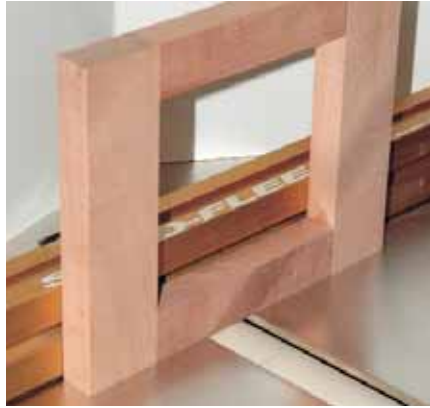


Photo.9: Edge sanding a frame



Photo.10: Finish sanding a frame

sanded by hand. While it is obviously inadvisable to allow fingers to slip onto the drum, I found that the reaction if this happens is not dramatic. Even thinner workpieces such as 2 or 3mm thick scrollsawn work can be sanded using a home-made or commercial friction pad.

Tall Workpieces

The ability to handle a large workpiece on the machine is likely to be a greater restriction than its height. The edges of items such as drawers and panels can therefore be sanded on the SAND-FLEE.

This raises some interesting possibilities. Photo.5 shows a test-piece made in the form of a box with dovetailed joints. This can be placed directly on the SAND-FLEE (Photo.6) and the slight excess length of the tails removed without danger of damaging the side of the box (Photo.7). In this instance, the fence was used to guide the passage of the box over the sanding drum but there is no reason why the same operation cannot be done free-hand.

Another possibility is the edge sanding of curved components (Photo.8)

Door Frames & Panels

The test-piece shown in Photo.9 is made in the form of a frame such as might be used for a door or panel. Again, the edges of the frame can be easily sanded, though this time the fence is necessary to ensure the edge is sanded true to the side of the frame.

If the machine is used for finish sanding the frame, no matter in which direction the flat sides are sanded, at least two

of the frame components will be sanded across the grain. However, it is possible on the SAND-FLEE to first sand two of components with the grain, then turn the frame through 90° and sand just the other two components by using the extreme right hand edge of the table to support the workpiece as shown in Photo.9.

Jointing

When boards are sanded in the same way as shown for the frame in Photo.8, the SAND-FLEE acts as a 'sanding jointer' enabling edges to be trued for jointing.

Changing the Abrasive

The table of the machine is raised to its upright position and the old abrasive strip unwound from the drum. A new piece of abrasive strip is cut to the same size as the original with the same angled ends (a template is supplied) and this is wound around the drum. A piece of fibreglass reinforced cellulose tape is used to ensure that the very tip of the forward facing end of the new strip is held down so it doesn't 'catch' on the workpiece.

Double or Triple Grits

The abrasive material — supplied in 3" x 10 yard (9.1m) rolls — is available in 100, 120, 150, 180, 220 and 320 grits.

If the work being done is fairly small, advantage can be taken of the hook and loop system by wrapping the drum with three separate abrasive strips, one beside the other. By choosing a coarse, medium and fine grit for these three strips, a workpiece can be sanded progressively 'through the grits' just by moving it across the machine.

Options

The drum shaft drive is extended a little to the right of the machine. An optional keyless chuck can be fitted to this so that flap sanders and other finishing devices can be used with the SAND-FLEE.

The Fence

The fence is attached to the tabletop by two finger tightened knobs. It is apparently a recent addition to the SAND-FLEE and could, I suggest, be refined a little. I think if I were to purchase a SAND-FLEE (a distinct possibility after this test!) I would replace the plastic washers used to raise the fence above the table. These are a little small and allow the fence to flex very slightly. I'd also look at the possibility of adapting some form of cam-lock fastening to secure the fence to the table so as to make it easier to shift it back and forth.

These are, however, mild criticisms about a machine for which I otherwise have nothing but praise.

Manufactured completely in the USA, the SAND-FLEE is available from R.D.G. International Agencies, Ph: 0418 184 048, email: rdg@bigpond.com. The current r.r.p. is \$1660.00 inc. GST. 