

Brush sanding that is breaking new ground 'down under'

An insight into the new brush sanding from Denmark.

by Bob Kory

Enjoying the benefits of cutting edge sanding technology is definitely available to anyone that is looking for improvements in quality, consistency and time saving. It appears that there has been a lot of dissatisfaction because of the comment, "I hope I am not wasting my time again!", prior to demonstrating the new brush sanding equipment. So it is great to hear after a demonstration, the acknowledgement that

the unique **Flex Trim** brush sanding system is very effective and produces results previously thought to be impossible or limited only to hand sanding.

The original range of sanding strips and grooved heads were developed in Denmark by Flex Trim and are undergoing constant improvements. These are now being discovered locally, and for the uninitiated, brush sanding strips are made up of two parts, sandpaper that is cut like a comb, with brush fibre clamped directly behind them. When pushed against the workpiece surface, the brush and sandpaper conforms to the workpiece contours, much like pushing sandpaper only with your

fingers, thereby smoothing the surface. It is the attention to detail here, and the wealth of knowledge that has been accumulated from application over the last 10 years, that is included with every product.

Poul Jespersen, the founder, of Flex Trim in Denmark, had been working in the Danish furniture industry after which he started up his own brush sanding business. In fact Poul was involved with sanding furniture, including a run of five million chairs, with all that practical experience and inspiration he designed the large range of brush sanding solutions available today. With quality outcomes foremost in his mind, like speed of changeover

with his grooved drums, allowing sanding strips to be exchanged with ease, to the selection of the finest abrasives available for sanding quality and longevity.

Brush sanding is easy to set up and Flex Trim doesn't claim to be able to have a solution for every problem, however, with the large range of heads and combinations of strips most sanding problems can certainly be addressed. Also brush sanding does not need to be pre-shaped to sand an object because it follows a calibrated surface. The combination of the right sanding strips and complimentary head, correct speed and pressure ensure optimal results.

The importance of sanding and denibbing, prior to paint application can never be over-emphasised, because it becomes a foundation, and then all other sanding that follows is complimentary. Also that initial denibbing ensures surface tension of liquids which can cause thinning of the coating, at the critical sharp edges is eliminated ensuring a thicker coat at the edges, which avoids rub through and improves durability.

The woodworking industry is not the only area to benefit from the new brush sanding technology, it is also being used in the plastics industry to sand fabricated high density plastics used in fabricated bench tops and sinks sanded with the unique Flex Trim CNC heads, another example is sanding off die squeeze-out, found on components from plastic injection moulding, as well as



Poul Jespersen, at work programming the Unisander ready for a demonstration at AWISA 2006.

surface smoothing and burr removal of laser cut or punched steel components as well as polishing metal surfaces.

If you are looking for better ways to sand for continuous improvement, this new brush sanding technology from Flex Trim ensures that you now have access to the latest innovations for your sanding solutions, knowing that these have already been tried and proven in Europe, Scandinavia the United States and now in Australia with great success.

High speed brush sanding

In the **Supplier** edition July 2006 I wrote about → 46

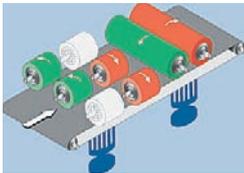


Toly and Shai Zeev with their new Unisander.



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Quality • not only on the surface

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(Left) Hugh and Guy Gilchrist and their new sanding machine. (Inset) Close-up of the Flex Trim head. (Right) Peter, Hugh and Guy checking finished pre-moulded coatings.

the **Australian Moulding Company** who are located in Bayswater, Victoria, and their preliminary fabrication of a three sided sanding system, which used three specific Flex Trim heads to speed up his previous manual sanding system of their range of pre-primed mouldings.

Following the successful outcome of that initial sanding system, **Hugh** and his brother **Guy Gilchrist** ordered a sanding machine that could be put in line with the existing high speed paint line, which is running at 43 meters per minute, in order to sand even faster to keep up with the paint line and improve quality further meant that a substantial investment had to be made. The ultimate, mould sanding machine has been built, and installed with its 14 Flex Trim heads. The result is that Australian Moulding Company has increased its capacity, can produce mouldings "just in time" for its customers and has already been complimented by their customers as being one of the smoothest pre-finished mouldings available in the

country. The cutting edge sanding equipment has definitely helped contribute to achieve efficiency with an increase in quality and consistency leading to a point of difference out in the market.

High volume and custom face sanding

J to Z Polishing is a family business run by two brothers, **Shai** and **Touly Zeev**, it has been running for over 10 years now. The company was originally founded by their parents, who handed it over, and gave them a free hand to develop the business further. J to Z Polishing has earned a reputation for excellent quality and service, but it has demanded a lot of their personal time after hours.

Specialising in two pack finishes, staining, liming and even restoration, the problem for them has been preparation sanding and Shai has been searching for a reliable sanding solution to reduce the laborious, and usually repetitive, dusty work, which is required every day to prepare job lots for painting.

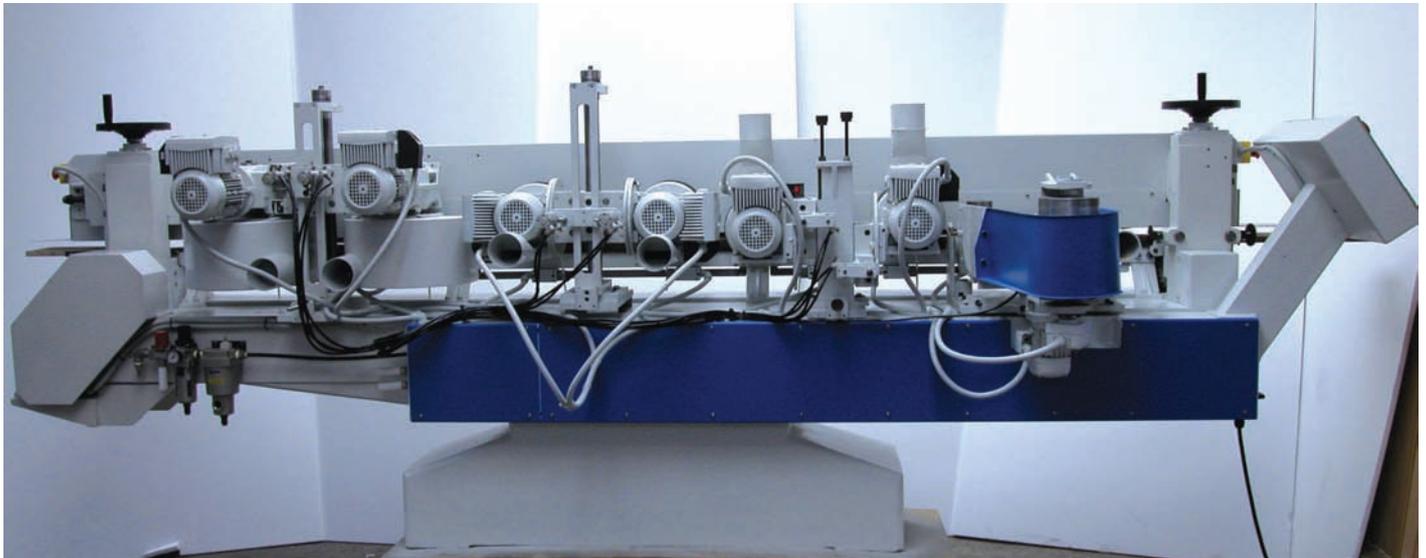
Having a very tight daily schedule, Shai made a key decision and that was to make time, which is precious to look at the new sanding solutions from Denmark. He also hoped we had a solution to meet his existing and future sanding needs. There is also a legitimate argument as to whether flat calibration sanding or brush sanding is the first investment when expanding capacity, that still remains a personal decision, however technically the ultimate set up is both, because one cant do what the other one does, so work loads will influence the final decision.

The Danish designed and built **Unisander** may require a substantial investment, but, it is state-of-the-art in respect of its capacity to sand contoured and shaped work pieces, with its patented, linear north, south, east and west sanding motion and has been fitted with Flex Trim sanding strips and has been designed to be versatile by memorising optimum settings, which can be recalled when the same type of work is processed later

in the same day allowing automatic resetting, the dust proof cabinetry ensures a clean work environment.

A number of trials were carried out, followed by a second trial for J to Z Polishing, which was a job lot, product was sanded that is very difficult to sand even by hand, because of its curved shapes. It took just over one hour to sand the job lot through the Unisander, including recycling, which resulted in a consistent high quality finish, the final recipe was recorded as part of the possible 99 files that can be recalled, and automatically reset the machine almost instantly for a repeat of the same job, which reduces down time. It was taking around seven hours to sand the same job lot manually. Shai and his brother Touly ordered their own Unisanding machine shortly after and are now using it very successfully to improve quality and service as well as the capacity of their business, in fact, it is so quick that their paint line cant keep up, and are very happy with their results. → 54

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Rear view of the new edge sanding machine.



Close-up of the multi stage Flex Trim head.

Automated edge sanding

Automated sanding of panel edges is also possible as a separate operation. It is impossible to edge sand, while the workpiece is sitting flat on the conveyor, while face sanding. The first retro fitted edge sander utilising Flex Trim brush sanding technology was featured in **Supplier 2006**. The mainframe on a used edge sander is ideal for retrofitting because it is rigid and can be recycled to mount new sanding heads and can help save costs for an automated edge sanding installation.

The **Prima** retro edge sander has been in service for a year, it had four inverter motors retro fitted with Flex Trim brush sanding heads and has already successfully edge sanded thousands of components, in preparation for powder coating, where edge sanding consistency is critical for quality results. Investing in a quality brush sanding system from Flex Trim has paid off, the recommended speeds and pressures have been adhered to, so the quality sand paper strips are lasting around three months per change in that application, making **Vince**

Ziino, and the **Schiavello** group very happy with his recommendation.

Since then we have another retro fitted edge sander. but this one has calibration sanding and six inverter driven heads, four with discs and two with drums. Inverter motors initially may be more expensive, but guarantee the slow speeds with torque needed to guarantee consistent results. The drums can be fitted with full length (140mm) strips with one grade of paper, and gradually lifted to expose a fresh piece of sanding strip when required reducing down time. Alternately the heads could be loaded with 3 x different grits over the height of the drum, and by simply winding the head up or down will also give a quick change-over to take advantage of different grits for different stages of coating.

Edge sander with jumping heads

The latest edge sander is a little more sophisticated being fitted with jumping heads, this withdraws the head when not in use as well as allowing the

heads to be reciprocating for soft sanding of the corners. With the line up of calibration belt sanding, and two pairs of discs followed by the additional two drums that have multi stage capability will allow a serious amount of configurations to tackle various edge sanding problems. The unique Flex Trim heads and sanding strips have made this retro fit concept possible.

Portable face sanding

Recently **David Trevena**, of **Austwest Cabinets** flew from Western Australia to run some trials, and had been searching for faster way to sand his doors prior to painting, but couldn't justify the high volume equipment. So we finished testing with our hand held brush sanding equipment, the **Flex Trim Miniflex** hand tools, and found that he could now sand efficiently producing 30 doors in two and a half hours compared with his previous quantity of 15 doors in eight hours, illustrating that there are better ways to sand using the new and improved brush sanding from Flex Trim in Denmark. -S-