

Effective Sanding

Add new dimensions and finishes to your panels and solid wood with Viet finishing centres from Biesse.

The art of making wood look older than it is, or adding character with chiselled, sawn or worn effects is hardly new. Makers of copy antique furniture are particularly skilled at it. But ageing the newly made case of Thomas Tompian copy, or even the reclaimed oak in a potboard dresser is a skill that takes time. And in a modern production environment, time is a precious commodity.

Biesse doesn't claim its sanding machinery will faithfully reproduce the wear marks on a 200 year-old dresser, but the effects from some of its Viet sanders will certainly appeal to manufacturers who want to create characterful surface finishes for specialist furniture, flooring and joinery applications – and do so simply, effectively, quickly and with repeatability.

Excluding the robotic Opera R that's equipped with robot arms and is designed

to simulate hand sanding, Biesse offers five different Viet sander models. The range starts with the Viet S211, a compact calibrating machine for small-scale calibration and sanding operations. Then come the Viet S1 and the Viet S2, both offering greater freedom to choose the working units. How much material you need to remove determines which you would opt for: equipped with hard rollers, the S1 and S2 would both remove 0.3mm and more in one pass, but if your work demands removal of 3mm, the Viet S2 can be equipped with a planer unit which will remove all 3mm in one pass. After the planer unit, you'd need medium hard rollers in the next working unit to refine the finish, and you can specify the subsequent working units so they match your requirements exactly.

However, it's with the Viet Opera 5 and Opera 7 that sanding really moves into a

new dimension, and with these machines – Biesse refers to them as finishing centres – the effects you can achieve go well beyond simple calibrating and sanding. "We are able to produce three different types of effect," Biesse's sanding expert, Michele Luzio, told Furniture Journal. "One is a distressed effect, the second is a sawn effect, and the third is a wavy effect. All three effects are achievable with the Opera 5, which has a working width of 1350mm and can be equipped with up to four working units – cross units, pad units, superfinishing units and sanding brushes that can be positioned in any order. The Opera 7 is a heavier machine that offers working widths up to 1900mm and it is more customisable."

The way Viet has designed the system for producing wavy effects is quite unusual. By using a special blade that's equipped with a



The Viet S1 with the Viet Opera 5 in Biesse's Daventry Tech Centre.

pebble-like surface to produce points of high pressure on the wood surface when the belt passes over it, and combining this with the action of the oscillating pad and an abrasive belt, the pebbles are pressed into the surface of the material being sanded. "The oscillating pad moves laterally and the wavy effect it produces can be customised in the software," explains Michele. Biesse's adaptation of a standard electronic segmented pad has also been turned into a surface texturing unit par excellence. "If you want a random effect, you can select which segments of the pad you want to be engaged by means of black and white dots uploaded as a 120 x 100 pixel image that will allow the pad to replicate the pattern." Any setting can be recalled – calibration, sanding, high finishing, or special effects – so you can repeat it at any time by recalling it from your library."

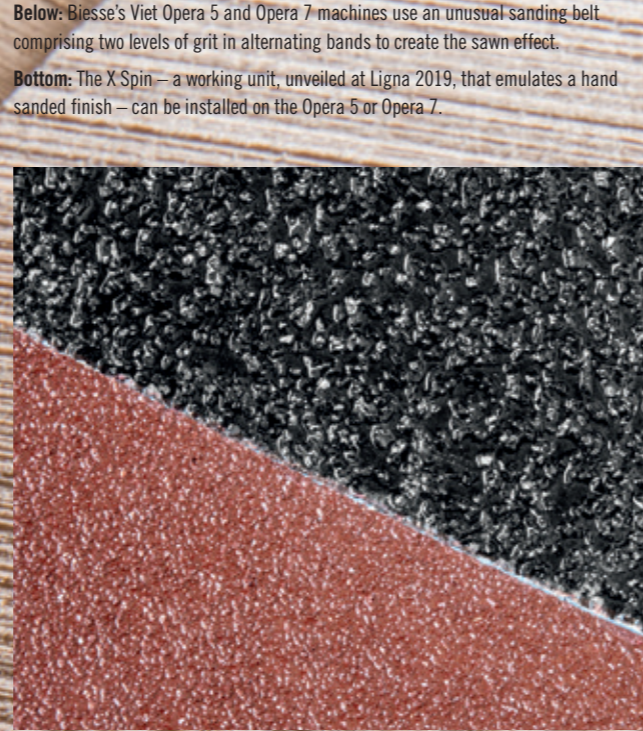


Michele Luzio





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Below: Biesse's Viet Opera 5 and Opera 7 machines use an unusual sanding belt comprising two levels of grit in alternating bands to create the sawn effect.

Bottom: The X Spin – a working unit, unveiled at Ligna 2019, that emulates a hand sanded finish – can be installed on the Opera 5 or Opera 7.



While some manufacturers have used an actual sawblade as one of the working units to achieve the sawn look, Biesse's system on the Viet Opera 5 and Opera 7 machines uses an unusual sanding belt comprising two levels of grit in alternating bands. "It is a crossbelt unit," says Michele. "The belt uses two different types of grit – one is a heavy 24 grit whilst the other is a very coarse 12 grit with an unusual shape." The pressure used by the working unit needs to be set to high to produce a vintage sawn effect but by varying

the conveyor and/or the belt speed, different sawn effects can be achieved. If it's the effect of old wood you're after, the way to create it is to remove the soft grain, and for this purpose, Biesse offers a choice of steel brushes or Tynex brushes. "The distressed effect is achieved by a Tynex brush, which is a combination of nylon mixed with steel, or a steel brush," says Michele. "However, the effect is different. The Tynex brush is less aggressive, so the shape of the scratch it leaves is more rounded, while a

steel brush scratches in a V-shape for a more aggressive effect." For the most part, you choose the specification of machine according to the work you expect to be producing and your Viet Opera 5 or Opera 7 will be built to order. "Depending on the configuration of machine that you choose, a range of different sanding belts can be used on each working unit that will allow a user to achieve different finishes," says Michele. "A typical configuration might include a steel



roller as the first working unit, a hard rubber roller as the second, then another roller that's soft and large in diameter. However on a second pass, a sanding belt can be replaced on the final working unit with one of a higher grit to provide a higher finish on a panel." "The choice of Opera 5 or Opera 7 really depends on the working units you want to use," says Michele. "The Opera 7 has a more robust frame and we can put more working units inside – up to ten. It also

offers a very high degree of customisation. It is the most customisable sanding machine in the Viet range. Some units, like the X Spin [a working unit, unveiled at Ligna 2019, that emulates a hand sanded finish] can be installed on either machine, but if you are finishing high gloss, you might want to use a longer crossbelt and this can only be installed on the Opera 7. The Opera 5 can be fitted with a crossbelt but it's a compact crossbelt. For high gloss finishing, especially if we are talking about 1200 or 1500 grit, the

longer belt cools better. Also, the Opera 5 comes in 1350mm width while the Opera 7 can be made in 1350mm, 1600mm or 1900mm wide." For more information on the effects you could achieve with a Viet finishing centre, or discuss a solution to your sanding problem, call Biesse UK on 01327 300366 or visit www.biesse.com/uk/wood/ If you are reading this article with the free Furniture Journal App, you'll find videos linked to all marked pictures.