

Sailing in style

Gary Tuddenham explains how a new Biesse Rover A CFT is helping Parabola Workshops keep pace with demanding high end commissions for the superyacht industry.

Making show-stopping, one-of-a-kind pieces of furniture for the owners of luxury yachts may sound like a dream job to any furniture maker who's never done it, but the work is exceptionally demanding, time critical and every commission is a prototype. It's a very specialised, niche sector, served by a rarefied group of detail-conscious craftsmen. It demands out-of-the-box thinking from a wide gamut of different disciplines ranging from veneer laying to metalwork – and much of what they do is covert.

Parabola Workshops, owned by Gary Tuddenham, has been catering for the demands of the superyacht sector since 2013. Although his workshop is small and

much of the work involved is carried out by hand, out of necessity it is equipped with highly flexible machinery, including a seven-axis robot milling cell and an all-singing-all-dancing Biesse Rover A, which was delivered last March.

"We do everything here," Gary explained. "We don't subcontract anything out because we have to keep tight control of every aspect. We only ever make one-offs and they can be very complex. There are only two of us here, so we tend to get the more specialised pieces to make, like dining tables, bars, or special panelling for staircases or around the bed head in the owner's suite. When we get dining tables to make, which will normally be for the main deck saloon,

with Biesse

each one can take us six months from start to finish. The complexity comes when the designer wants the table to extend and the veneer pattern on the top needs to match when it's closed as well as when it's open. The structure inside is usually a steel or an aluminium frame so it can be secured to the boat, then we build on top of that. It can get quite complicated.

"The Biesse machine takes all of the complicated jigs and all the donkey work out of the process. When we're doing the handwork, it's all finishing. We need to spend time on the veneering, making sure that's perfect. Before we bought the Biesse, we were routing MDF templates to make curved panels, then trimming and laminating. It's

really time consuming work, but the machine does all of it in a tenth of the time."

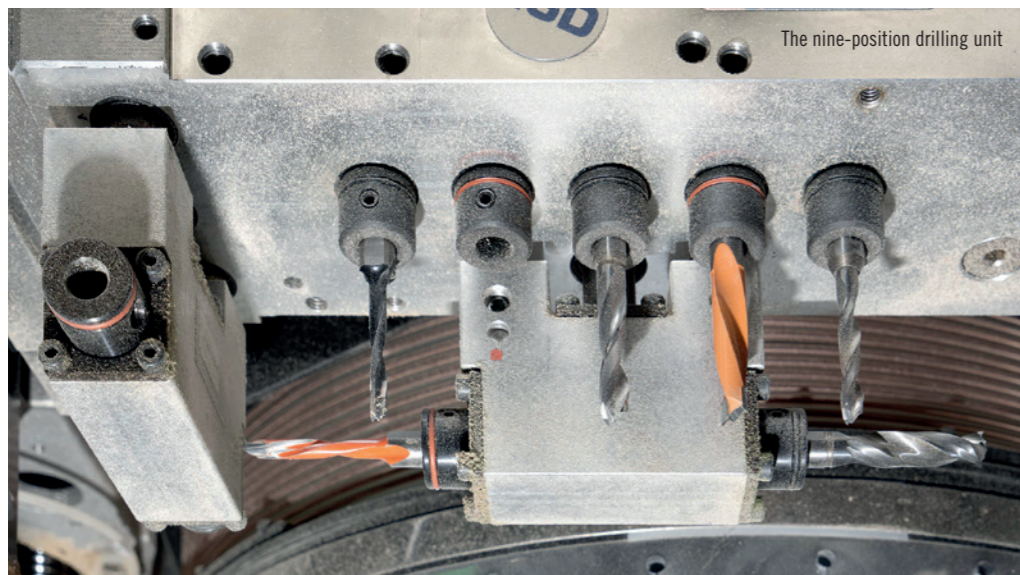
Parabola's new Rover A is a five-axis machine with a semi-automatic Setup Assist worktable, a nine-position drilling unit, a 25-position combined tool-changer that includes 13 tools in a revolving unit, automatic tool measuring for tools of up to 130mm in diameter and, critically, a 10ft x 5ft matrix table with modular Convertible Flat Tables and pop-up stops ensure accurate positioning. The CFTs enable Gary to create the bed size he needs for each job, set two very different jobs up at once and switch seamlessly from one to the other. It's even equipped with an automatic offcut removal system; a belt conveyor that transports



SUPERYACHT
BY Gary Tuddenham



Semi-automatic Setup Assist on a 10ft x 5ft matrix table with modular Convertible Flat Tables



The nine-position drilling unit



Pop-up stops ensure accurate positioning



There are 13 tools in a revolving unit and a further 12 in the main toolchanger (below left)



A belt conveyor transports sawdust and chips to a pull-out drawer for easy disposal

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Gary confirms this is the third Biesse machining centre he's bought in the last 11 years and he's delighted with it. "We started out with a little three-axis Klever, then we progressed to a five-axis flatbed Rover. We ran both of those at the same time for a while. The Klever didn't really get used to its full potential because the demand was for five-axis work all the time, so we sold it, kept the existing Rover A FT, then, when the new Rover A with the Convertible Flat Table became available, we decided to change up again. Our new Rover A is set up so it's half pod and rail and half CFT. I was a bit sceptical at the start; I didn't think it would be that good, but it's totally changed the way we do things.

"There was a lot of set up time on the flatbed to jig things up, put pods on, put clamps on. With a pod and rail system, it's so easy and quick. Because I've got both options, I can be making a complicated five-axis piece on the pods, then change over instantly to nesting on the CFT. There's no setup time. It's immediate. Before, I could have lost half an hour swapping over between the two."

Given Parabola's need for flexibility, a hybrid machine option was the obvious choice but Gary didn't want to repeat his past mistakes and underspecify his new machine. Instead, he enlisted the help and guidance of Michael Clack, Biesse UK's CNC Brand Manager. "I think I got every extra I could this time," he told me. "Michael and I went through everything and

made sure the specification was exactly what we needed for the work we do. Michael's a very good engineer. He is my primary go-to if I've got a technical issue and his help was invaluable.

"The Rover A is a high spec machine to start with and it has pretty much everything you'd normally need on it, but it turned out that one thing I did need to add was auxiliary vacuum because the components we're making are odd shapes and we need a lot of custom vacuum jigs to hold them.

"When we got our first CNC, we were making templates and then working from them. Now the job is on the machine straight away. It's immeasurably faster and that's really important because every job we do has a deadline, but we never make the same thing twice. You don't get a trial run

with a prototype. The benefit of the CFT is the setup time; we're not wasting time trying to figure out how to hold something we've never made before. It's done automatically."

When he first started using Biesse's bSolid software, Gary didn't take to it readily. "That was 10 years ago," he recalls. "There wasn't anything wrong with it, it was just a totally different way of working to the software I'd been using before. I just had to learn it. Now it comes easily to me. Biesse has also made massive improvements since the first edition that make it much more flexible and easier to work with – but still we took the opportunity for a week of training at their Tech Centre in Daventry."

Gary freely admits Biesse's five-year Total Care warranty and maintenance programme was a big factor in his decision to buy his

third machine from Biesse but it wasn't the only one: "I just like the Biesse machines," he says. "I've looked at others but I'm always drawn back to Biesse. I like how they work and how they go about doing things as a company. I suppose I've got used to Biesse – and you do get looked after well. The service is brilliant.

"This is a heavily worked machine. It's on every day from eight o'clock till six o'clock. It's not getting pushed to its limits with high loads but it clocks the hours up. On the last machine, we were pretty close to 10,000 hours over five years and that's actually machining time, not just 'machine on' time. The new Rover A is working like the last. We wouldn't be able to produce the type and complexity of work we're making without it.

"We've had a few breakdowns over the years – every machine stops working at some point – but if Biesse wasn't on the phone to me within an hour, I'd be shocked. Whenever I've had a problem, they've either logged into the machine and dealt with it remotely, or if they can't resolve it that way, an engineer has been with us the next day. I'd recommend them to anyone. I have done, in fact – and there are a lot of people who have bought Biesse machines on the back of conversations I've had with them. I can't fault them at all!"

For more information on the Rover A CFT, or to discuss how a Biesse machine could add value to your workshop, call Biesse UK on 01327 300366 or visit www.biesse.com/uk/

