



Diapason Italy

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The loudspeaker brand Diapason is owned and run by a musician with a lifelong passion for truthful music reproduction, as Trevor Butler discovered on a visit to northern Italy.

Alessandro Schiavi was destined to become a professional musician but this changed while he was studying piano and composition for the pipe organ at the Conservatory music school in Brescia, northern Italy. Home of the world's oldest firearms manufacturer Beretta, Brescia is the hub of Diapason. Here is the company headquarters, a retail outlet, research and design centre, and manufacturing base.

It is also no coincidence that Brescia hosts famous violin makers, including Alessandro's friend Filippo Fasser – a follower of the 16th century tradition of Gasparo da Salò whose instruments were more sought after than those from Cremona; it is probable that he was the inventor of the modern violin. This influence was at the front of the Diapason founder's mind when he decided to create a reference monitor to assist him in faithfully capturing live music – that was a square box called the Prelude which became commercially available in 1987. Just 17 when he became interested in recording music, Alessandro worked on the archives of the International Piano Festival of Brescia and Bergamo which was staged in 17th century baroque churches and theatres. So the journey began, from musician to recording engineer to speaker designer – aided by the fact that he'd studied electrical engineering since he was 15. Unsurprisingly, perhaps, he was soon working for record labels including Fonè, Audio Review and Suono.

Little boxes

But the story of each Diapason model begins a few miles down the road from the factory in the traditional Italian town of Sarcedo. Between the tourist hot spots of Venice and Verona, a firm of family craftsmen work assiduously to create some of the most beautiful- loudspeaker cabinets money can buy. Hand-made by Loris Coppiello, his wife Loredana and daughter Erika, the trio are able to fulfil a large part of Diapason's cabinet needs.

The close-knit team proudly display a pair of 50 year-old horn prototypes developed by the current owner's father-in-law as part of a highly efficient loudspeaker system for an amusement park. Next to this stands a tower of today's Adamantes 25th Edition cabinets for Diapason, almost ready for shipment to the factory. They are the result of many meticulous

stages of craftsmanship, much still done by hand. I am shown the processes including application of cotton netting inside to reduce movement and resonance.

The husband-and-wife team are extremely adept, and manage to turn planks of rough-looking solid hardwood imported from the USA into beautiful boxes, with sloping sides and ready for crossovers and drive units. The timber is carefully selected, I'm told. "To begin with I used just Italian chestnut but it was very complex to use so I decided on two different



varieties of ash for a while, alongside Italian walnut, before finally deciding on the latter which is just perfect for making speaker cabinets." But circumstances forced a change when the native timber became difficult to source with production in annual decline. The solution was American Canaletto walnut, even though it's ridiculously expensive and the price would deter many other companies from even considering it. "But not many Diapason customers are buying on price!" he tells me, "for them it is the quality of the music that matters." And, Alessandro carries on with his design process, I discover, at the stage when others might consider their work complete; this is why gestation of a new model takes up to eight years with meticulous fine tuning and final set-up processes.

"Finding Loris was the start of something special", Alessandro tells me. "The first time we met, he fell in love with my cabinet design and we knew that the perfect team was created. He is able to assemble each piece with great care and precision, respecting the time taken for the timber to settle after each stage... this is no quick process, it takes patience and skill to produce the diamond-shaped cabinet – perfect to the eye and silky smooth to the touch."

It was something of a fortuitous find that the two got together, as Alessandro recalls how he had searched most of Italy for suitable craftsmen to be trusted with his designs, which were unconventional as far as loudspeaker cabinets are concerned. "They are more like a violin, and you don't find luthiers on every street corner", he tells me as we drive through the



Italian countryside. “We’ve been working together now for 30 years, since I started Diapason.” He and I chat about capturing analogue recordings on Nagra reel-to-reel machines and the early days of digital and our separate memories of Sony’s infamous F1 and second-generation PCM1632 recorders. “From the start I relied on VdH cables because I found them so much better than the standard XLR leads and, still today – all my speakers are wired with them. In fact, A.J. Van den Hul has a pair of Dynamis for personal listening.”

It was in 1987 that Alessandro created the first Adamantes model (all the Diapason models are named in Greek – this translates as ‘diamond’), with full production starting two years later. In this design he was proud to have a multi-faceted cabinet shape that closely follows best acoustic principles by providing circular emission of sound, avoiding transducer resonances. “This unique design gives a close approximation to the theoretical ideal of point-source radiation, where the loudspeaker quite simply disappears, giving the listener the sensation of a highly-realistic ‘virtual’ soundstage.”

Expansion needs

Business growth brings its own challenges as Diapason becomes more successful in ever increasing worldwide markets; for example, the Italian speakers were an instant hit in the Far East which has become an important territory for the brand. However with the Copiello family already working flat-out, and not getting any younger, a supplier had to be found elsewhere. He could have run to China for manufacturing “as so many others have”, he acknowledges. But was determined to find a solution closer to home. Thus he hit upon a young interior-design firm – just a short drive from his own factory. They had space, they had wonderful new hi-tech woodworking machinery and they had over 20 expert craftsmen. This was a great starting point and one that has allowed the speaker-maker to grow his business.

Skilled joiner (and now close friend) Loris was also pleased with the outcome. He stepped in and shared his knowledge with the new team, explaining how he overcomes issues and teaching them how to create the perfect loudspeaker cabinet. This was a very different world from his own, more traditional workshop but, nonetheless, capable of producing extremely high-quality work, albeit with greater mechanisation. In what resembles a giant aircraft hanger, there’s plenty of room at the new facility, which is soon to be graced with a third Morbidelli milling machine (at €350,000 a piece, plus tooling costs). Computer-controlled and extremely efficient, they allow a piece of wood to be worked on with great speed and total accuracy.

Under the careful eye of joint-owner and production manager Andrea Freti, the team are working on various stages of the Diapason cabinets when I visit: assembling, gluing and clamping, hand finishing and inspection while the giant machine is whirring away to create the shapes and make the various holes for the drive units: rear port and connection plate which will house the terminals. In just 12 minutes it has created half the box before the operator



intervenes so it can work on the opposite side for another 12 minutes. The whole operation is robotic and mesmerising to watch, but we have to return to head office once Alessandro is satisfied that the first units are not only correctly made but to the quality he demands. With up to five months to create a batch, he can’t afford any mistakes to be made at this stage.

“Wood can’t be rushed”, I’m told by those in the know here. “Just like a violin, it takes time to make, otherwise it will not sound good. We must never be in a hurry with this natural material, we have to be patient.” And, patient they are with careful precautions along the way to ensure that the wood does not distort or, worse still, split – rendering the entire cabinet useless. Stability throughout manufacture is key, with carefully-placed fillets, bridges and strategic bracing to strengthen and stabilise the structure.

Each model is different and, while on the Reference Series (Adamantes, Karis, Ken-tron) there is nothing but solid wood, for some models (such as the Micra) there is engineering merit in deploying MDF on the front and back baffles for added stability and strength. "MDF has the movement in the opposite direction and so improves rigidity in this case", I'm told. "MDF here is the solution, not the problem – while most speakers of this size and price would be made totally of MDF – that's not the best we have learned."



Assembly

The assembly team at Diapason's factory are responsible for testing the various high-spec and custom-made crossover components (many produced within sight of the factory), assembling the boards as well as checking the drive units (mainly made in Norway by SEAS, with one Scan-Speak woofer deployed) and then building the speakers. There's further testing, packaging and finally shipping. However, the last piece of the flagship Dynamis is left to the speaker's owner to place. Each box contains the company's logo on an elegant steel band ready to be ceremoniously mounted on the baffle.

Production is overseen by the affable Alessandro Zanetti, Diapason's chief engineer who has the latest CAD software on-hand to check manufacture at every stage. Standing by a specially-commissioned pair of Dynamis which are destined for a customer in Finland, Zanetti is very proud of consistent quality and the product's longevity. "We are still servicing some of the original speakers", he explains. "Thirty years later, we still renew drivers, change crossover components – whatever our customers require because we have stocks to ensure they can continue to enjoy their speakers."

There are versions of the floor-standing model in a range of paint finishes, my eye is drawn to some in a stunning bronze-leaf which have yet to be fixed to their stands. Brandishing a colour swatch, Diapason's international marketing manager Chiara Galinotti is obviously as excited by the latest model as its designer. Translated from the Greek as 'the powerful one', it certainly packs a punch when I hear it in the firm's Sound Center store up the road. Finish



options include gloss white, China red, silver leaf, metallic silver, bronze leaf, gold leaf and dark grey – plus any colour or finish on demand.

New models

Creating the Dynamis was a long project which began for Schiavi in 2005 as he worked on it alongside the Astera (Greek for ‘star’) until the floor-stander finally came to fruition in 2014. He says this is the speaker in which he has been able to combine all his passion and emotion for music. All along, the designer’s goal was to produce what he hoped was the ‘complete’ loud-speaker – and he worked in collaboration with colleague Roberto Pasetti on the aesthetics. “Key qualities of the new model are the perfect balance between depth of bass, power-handling, in-room SPL and timbre coherence”, he tells me. “I really believe that, in the Dynamis, the listener at home can reproduce with such realism as to perceive as real the presence of musical instruments, musicians and singers on the stage.” It’s no coincidence, I observe, that the lavish product brochure for this top-range model is not only the size of a vinyl record, but comes in its own LP sleeve.

It’s perhaps disingenuous to refer to the 14-sided Dynamis as the Adamantes model with an extra bass unit, but the earlier model was the designer’s starting point as he created a cabinet which has just two parallel sides to minimize standing-waves. This reminds me of early BBC recording studios which were designed so no two walls were at right-angles. Sitting in the



This motorcycle makes for an impressive centre piece at the group’s Sound Center retail store – with Alessandro and marketing manager Chiara Galinotti.

listening room, enjoying Alessandro’s favourite recordings, everything he says, everything he stands for makes sense. We have to be thankful that he wasn’t lured by a lifetime as a musician but devoted his skills and passion towards creating such wonderful transducers.

Today the Diapason range also embraces stand-mounts, slim floor-standers, centre channel speakers, but it’s obvious from listening that there’s a common sonic thread running through the range. It is all rather Italian – as beauty, art, music and culture come together to create the brand’s signature. Just as the inner sense of harmony and pleasing proportions, and the taste for refined and well-designed objects has fed Italian talent and creativity over the centuries, so with Diapason there’s the sense of the founder’s philosophy shining through. As he puts it, “it is something that captures your eyes and involves your senses and emotions.” Having seen them being made and heard the result, I couldn’t agree more.