



Summit meeting...

Visiting the new team at Peak Consult

by Roy Gregory



These days it seems that - whether you are a manufacturer or high-end customer - you are nobody unless your latest speaker is built into a curvaceous carbon-fibre monocoque, hewn from billet aluminium or proffers a set of acronyms for reconstituted wood fibre that reads like alphabet soup. Yet for every sumptuously sculpted Magico M7, there's a Clarisys - ghost of Apogees past mounting a new assault on the state-of-the-art: for every painfully stylish Estalon there's a reincarnated Tannoy dual-concentric, proudly proclaiming its heritage and DNA: for every V-version of a Wilson, there's Diptyque, nonchalantly making a step-change in planar-magnetic technology and sound quality. It's well to remember that, audio is a world in which 'new' cannot simply be translated as 'better' and we take as many (or more) steps sideways or backwards as we do forwards. There are many adages that apply to high-end hi-fi (including, with show season upon us, the ever popular; "The more expensive a system is, the worse it can





A serious linear router, perfect for machining channels or bevels into cabinet panels.



The huge, flat-bed saw bench that is used to cut panels for lamination.

▶▶ sound!") but as both reviewer and listener, the one I find most useful is, "It ain't what you use, it's the way that you use it - that's what gets results..."

Like the examples cited above, incremental development of proven approaches often yields results that are both more predictable and equal in performance to the revolutionary leaps in materials science we so often see cited in the ad copy and marketing materials. Recent experience with the Peak Consult Sinfonia, a speaker that can kindly be described as traditional in approach, less kindly as old-fashioned, is the perfect case in point. Outwardly almost wilfully devoid of the latest, high-tech, high-fashion drivers and cabinet materials, it quietly turned in a musical performance that handily bettered the established benchmarks, benchmarks that shout louder and cost rather more. Score one for slow and steady, with 'gradual' being the order of the day. Of course, when it comes to incremental development, increments can vary, as can the rate of evolution...

The Peak Consult story started 28 years ago, when an audiophile and carpenter by the name of Per Kristoffersen took one look at the chipboard cabinets of his beloved loudspeakers and felt confident he could produce something considerably better. It's not such a bad place to start. Before long he was making cabinets for friends and inevitably, started tinkering with his own designs - not without some significant commercial success. We refer to speaker *systems* for a reason and



*Some processes need more than just clamping!
The massive presses used to bond elements of the Dragon Legacy together.*

starting out by replacing just one part of the driver/crossover/cabinet matrix left him with a healthy respect for just how much contribution a cabinet makes, and which parts of it contribute most.

Take a look at a Peak Consult speaker and it would be easy to assume that the carcass at least is formed from 'planks' of solid wood in a similar way to the early Sonus Faber designs. Nothing could be further





Lower bass cabinets for the Dragão Legacy in raw form: look carefully at the baffle and you can see the contour lines of the HDF laminations.

▶▶ from the reality. Fast forward through two decades of experimentation, trials involving not just different materials but different combinations of materials and the Peak 'recipe' had started to settle down to a well-defined approach, whose materials of choice are laminated 12mm HDF, clad in strips of solid hardwood, bonded into slabs. But the materials choice is only the starting point, with a whole range of different glues

used to achieve different results at different points in the cabinet's structure.

As an audio journalist, you get to visit many a speaker factory and, with very few exceptions, it's pretty much a case of seen one, seen 'em all. Sheet-fed CNC lines turn slabs of veneered MDF into 'fold-up' cabinets that are then stuffed with drivers. Walk into the Peak Consult facility and you immediately realise that you aren't in Kansas anymore - or B&W, KEF or Focal. Where you are is in a good old-fashioned wood-shop. A place where people use a range of human operated tools to cut, shape and bond wooden panels to be combined and then construct loudspeaker cabinets, no more than several at a time. This is a low-volume, hand-built, artisan process - from beginning to end.

It's a process that owes more to judgement and feel than it does to four-axis precision milling, high-speed routers and complex computer code. It's not entirely without its computer controlled elements, with cut-outs for drivers and reflex ports and rebates for terminal blocks all CNC machined, but the edge to edge construction is all a function of hand and eye. At heart, this is a furniture shop - as you can tell from the huge number of sash-clamps (large and small) hanging on every rack, so as to be ready to hand.

Each cabinet starts out as a set of 12mm HDF panels that are first bonded together, normally using a visco-elastic adhesive (that is, one that doesn't set hard). ▶▶



Closer view of the almost finished cabinet with front and rear 'leather' and hardwood skin. Note the sloping internal baffle, creating a non-parallel enclosure (mirrored by the slope on the top of the cabinet).



The same bass cabinets seen from a more normal (if upside down) perspective.



Note the terminals in the rear face of this separate section of the enclosure. It will house the crossover and be filled with sand for added damping before sealing.

- Depending on the speaker model and the position of the panel within the cabinet, the laminated 'sandwich' might consist of two, three or four layers of HDF, the thin, soft 'filling' creating a constrained layer construction that's stiff, heavy and yet capable of absorbing/dissipating considerable energy. They can also be readily shaped or profiled into the complex facets and curves that you see minimising the diffraction effects from the front baffle of a Peak speaker. Once shaped and fitted, the panels are glued and clamped into three-dimensional boxes.

leather fabric, originally developed for the roofs of automobiles. It's tough, doesn't fade in the sun and it too adds a subtle damping effect to the baffles. With no grilles to hide the drivers, fitting and finishing around them, as well as the complex curves and angles of the baffle demand extreme care in order to avoid creases, wrinkles or undue stretching that might sag or loosen over time. It's exactly the same care and attention to detail that is visible in the selection of those wood strips and in the execution of the speakers' elegant outrigger bars and adjustable feet. But it extends well-



Raw hardwood strips, awaiting sorting and bonding into 'planks'.



Bonded hardwood strips. Note the staggered arrangement that helps match grain and figuring.



The finished article, in the process of oiling by hand.

The outer faces of each cabinet are now finished and prepared to receive their outer cladding, the hardwood layer that makes both an aesthetic and sonic contribution. Strips of Wenge or American Walnut, roughly 30mm wide, are bonded, edge to edge to create a broad 'plank' that, shaped and glued to the cabinet adds another stiffening, dispersive layer. This is no slap-dash procedure, with strips carefully selected and positioned or aligned to match the colour and grain of their neighbours, maintaining the natural beauty of the wood and avoiding unnatural shifts in shade or texture. It takes experience and a good eye, especially as the final result isn't necessarily obvious from the surface and can't be judged until the four coats of two different oils have been hand-applied to the finished panel.

Before the hardwood skin can be attached, the front and rear baffles must be wrapped in a faux

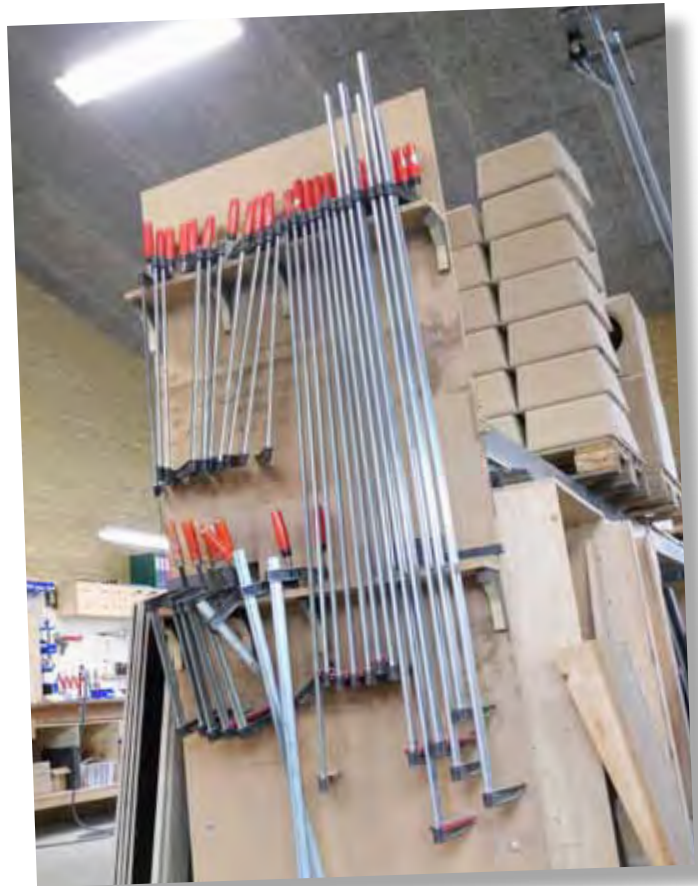
beyond fit and finish or simple aesthetics. The fact that the company supplies a torque driver with each speaker demonstrates just how serious they are about delivering not just consistently excellent standards of construction and surface finish, but consistent musical quality too. The audiophile tendency to tighten bolts as tight as possible - and then some - is neither the best policy nor the route to best performance. Driver fixings must be tightened evenly, avoiding distorting the basket/face-plate, or introducing torsional stresses, any or all of which could result in resonant peaks within the driver's structure and thus, a direct impact on musical performance. Yet how many manufacturers supply a torque driver, or even publish torque settings for mounting their speaker drivers?

Which brings us to Chapter Two of the Peak consult story. As I've already pointed out, any speaker is a system. The best cabinet demands the best acoustic/



▶▶ mechanical design to go with it, if it's going to deliver the best possible performance. Recent developments in speaker measurement have opened up a whole new tool box for both driver and system design - but a toolbox that, just like a box of chisels, needs practice and experience to use - practice and experience that was outside Per Kristoffersen's skill-set. It's no longer sufficient to simply match off-the-shelf drivers and components by ear. With that in mind, in 2021 he decided to sell the company, but new investors Wilfried Ehrenholz and Lennart Asbjørn Jensen were canny enough to recognise that this was a cabinet looking for up-to-the-minute driver and crossover design like a wedding dress is looking for a bride.

The history of outside investors buying into audio companies hasn't always been either pretty or successful. In too many cases it has signalled the beginning of the end, but these are no ordinary investors. Wilfried Ehrenholz is the man who established and built the Dynaudio brand, before retiring to pursue a quieter life. In this case, that 'quiet' life incorporates a significant interest in Peak Consult and responsibility for



I told you there were a lot of clamps...



Twin Peaks – Per Kristoffersen (centre), Wilfried Ehrenholz (right) and head of sales Mike Picanza hatch yet another cunning plan. Lennart Asbjørn is still busy trying to fix the results of their last get together. Just joking...



- on-going product development - the chance to apply his ideas and experience to performance orientated products without the price constraints that applied to so many Dynaudio projects.

To that end, he has engaged the services of audio design consultant extraordinaire, or speaker building gun-for-hire par excellence if you prefer, Karl-Heinz Fink (of Fink Team fame). KHF has been the go-to consultant for speaker companies the world over for quite some time - a role that has enabled him to accumulate possibly the most comprehensive suite of measuring/listening facilities available, along with considerable experience in applying them. But most of those projects have been cost constrained, certainly speakers towards the lower end of the market. But irrespective of price, the fundamental approach is still going to be the same - as we have seen from his own, Fink team designs. So for KHF too, the Peak Consult project was the opportunity to apply his talents and experience to products in which musical performance trumped cost considerations.

Between the two of them, they specified new drivers from Audio Technology, working with the supplier to modify and optimise them to Peak's design requirements and purposes. They developed new crossovers to pair the electro-acoustic system with

the enclosed volume and mechanical behaviour of the cabinets. They listened exhaustively to the whole cornucopia of audiophile crossover components, selecting on sound rather than price. Sometimes the most expensive option won out - and sometimes it didn't... Between them, along with Per Kristoffersen, they refined the existing El Diablo model while developing first, two completely new designs in the distinctively Peak shapes of the Sinfonia and slightly smaller, two-way Sonora, before turning their attention to the far more ambitious (and considerably more impressive) Dragon Legacy, a five-driver, three-way, D'Appolito design that at €185,000 and 225kgs each, weighs straight into one of the most hotly contested high-end market sectors there is.

With the electrical elements and cabinets in place, you might consider that job done, but to do so is to ignore the third, equally important part of the equation. Lennart Asbjørn is an audiophile, but he is not from within the audio industry. His background is in restaurants and large scale catering operations, a field in which the reliable and timely arrival of a whole host of different products through multiple supply chains demands some serious management capabilities - and that's before you get to the personalities involved! Reliable supply of consistent materials and ►



Side panels awaiting their final finishing and hand oiling.



It's an incremental process, with individual pairs of speakers progressing a step at a time, two-by-two...



A pair of El Diablo cabinets awaiting their crossovers. Even a cabinet this substantial still needs to control the internal air mass



Sinfonias hooked up in the Peak Consult listening room. When you run your own woodshop, it's easy to produce surface diffractors for your listening room.



When you run your own woodshop, knocking up a rack isn't too much of a challenge either.

► components is essential to running a successful audio business and building its global reputation. Where high-end companies could once rely on local sales, those days are gone, especially when your most affordable product starts at €25,000. The high-end market is genuinely global, even for a low-volume, specialist

producer like Peak Consult. In fact, especially for a low-volume producer, a business model that creates its own challenges and pressures when it comes to customer confidence and product consistency. Creating a hand-built, artisan finished design is one thing: reliably

supplying it as a product to customers around the world is quite another. It's a factor that is often overlooked and just as often underestimated when it comes to assessing the viability and longevity of any product and the company that makes it. In the case of Peak Consult, the Holy Trinity of the skills to build, the experience to refine and optimise and the diligence

and business acumen to supply is well and truly embedded at the company's core.

The Sinfonia has already redefined our expectations of the Peak Consult brand. The Dragon ►►



Vitus SCD-010 CD player, BAT REX II line stage and Vitus SM-101 mono-blocs: Purist Audio Design AC Extension LE and Inakustik LS-4005 Air copper cables.

▶▶ Legacy is currently busy ramming home the message and getting a shine. Both speakers respond to input, in terms of the driving system and the minutiae of set-up. That response culminates in a performance of beguiling musical coherence and expressive range. Seeing first hand the care and attention that gets lavished on every aspect of each Peak speaker, that end result comes as no surprise. The quality that makes music so fundamental to the human condition is its inherent humanity. Listening to (and working with) the Peak Consult speakers, it's impossible to ignore the human imprint writ large in their creation. There's a natural warmth and accessibility to their sound, a willingness, almost a desire to communicate. There are those who will find the Peak's appearance dated. They might even assume that their sound is dated too. But new isn't necessarily better. I suspect that more than a few listeners will find the Peak's fine finish and furniture quality construction as reassuring as their unforced musical integrity. For me, it's just nice to understand the 'why' that underpins a range of products that's as surprising as it is impressive. ◉



Under Pressure! There's definitely something about the handbuilt nature of the Peak Consult speakers. Genuine artisan quality doesn't come cheap and it doesn't come fast. If Peak achieves the success the speakers deserve, waiting in line might well become the order of the day...