

A close-up, high-angle photograph of a black speaker. The speaker features two drivers: a smaller one at the top and a larger one at the bottom. Several screws are visible around the drivers. The background is dark and out of focus.

# Contour

More than the sum of its parts

**DYNAUDIO**



# Re-thought, re-designed, re-engineered, re-built

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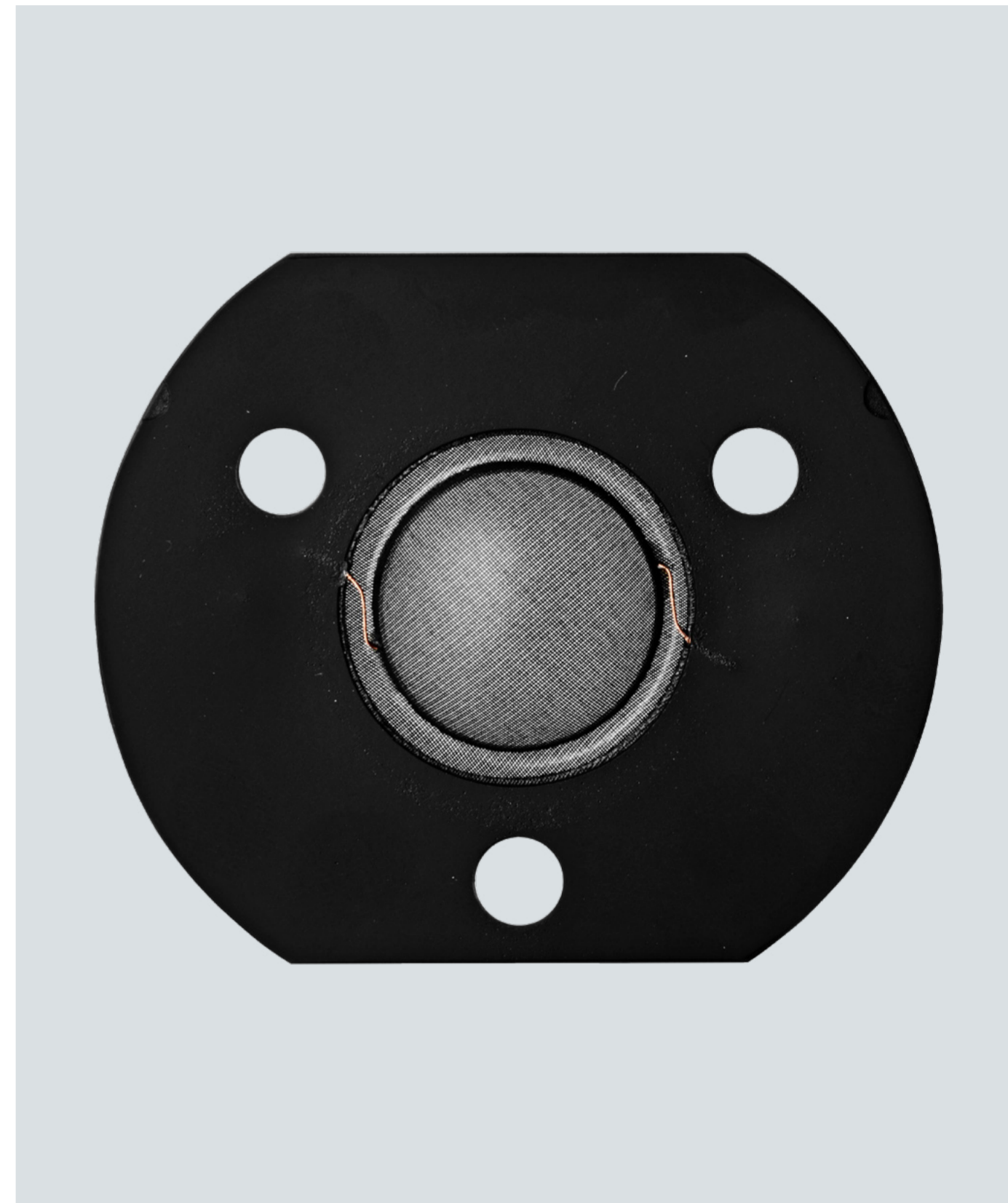
# Esotar<sup>2</sup>

The sweet-toned Esotar<sup>2</sup> soft-dome tweeter has been a legend in its own right for years. It's commonly regarded as one of the world's best-ever drivers – and because it's been such a great friend to so many millions of ears (and a key part of Contours past), we just had to give it another outing.

But there's more to it than nostalgia. The simple fact is that the Esotar<sup>2</sup> is the only tweeter capable of matching the rest of the Contour's components for performance.

It's built in an extremely labour-intensive process – shaped carefully over a form into the dome shape, and then treated with a precision coating to finish. That's how our Skanderborg factory technicians, who are as meticulous as they are talented, produce its characteristically clear, detailed sound. It's a sound that you simply can't get with metal or other exotic materials. We just don't need them.

Once it's built, the tweeter's voice-coil is encased in a special magnetic ferrofluid, which works like a shock-absorber and dissipates heat to reduce stress on the moving parts. That improves power-handling, widens the frequency response and... well, now we're just boasting. What it means for you is consistent Contour quality. Just as you'd expect.







## Baffle & basket

The new Contour's solid aluminium baffle is an evolution from the iron used on previous models. At first glance we think you'll agree that its curved form looks slim and elegant – which will make our lead product designer, Malte Köhn, very happy, because it's supposed to.

He spent hours making it look like that.





We spend hours on the bit you can't see



But Malte also spent just as much time on the bit you can't see – the back. It's not just mounted on the front of the cabinet; it's part of the cabinet: thick, solid, robust and extremely well-damped.

Why? Because the new die-cast aluminium driver baskets are mounted directly to it to form one solid mass. That stability lets the all-new drivers do their work free of unwanted vibrations or resonances – which means the sound goes exactly where it's supposed to: forwards.

Everything is shaped, curved and chamfered to aid the drivers: take a closer look and you'll see how the edges of the aluminium curve gently into the wood of the cabinet. That isn't just for show: it reduces unwanted high-frequency diffraction for clearer treble.

We even argued about whether the screws should be visible. (The 'yes' side won, as you can see – and even our minimalist contingent had to agree that it was the right decision.)



# Cabinet

The Contour is the first-ever Dynaudio speaker to have soft edges. That's because Michael Rhode Bøwadt, our brave VP of product management, took the leash off our design department: "Make the best cabinet in the world," he said. So we did.

Why the curve? Because it looks nice, for one thing. But it also serves a solid sonic purpose: its edges help reduce unwanted high-frequency diffractions for improved treble, without the need for any weird-looking fins or humps. It also improves off-axis performance – so even if you've been turfed off the sofa, it'll sound just as good off to the sides as it does out in front.







The cabinet is multi-layered for stiffness and stability. That construction, along with the new internal bracing, gives the aluminium baffle and its direct-mounted driver baskets an ideal acoustic foundation.

And yes, the cotton bag is put there on purpose.

# 11



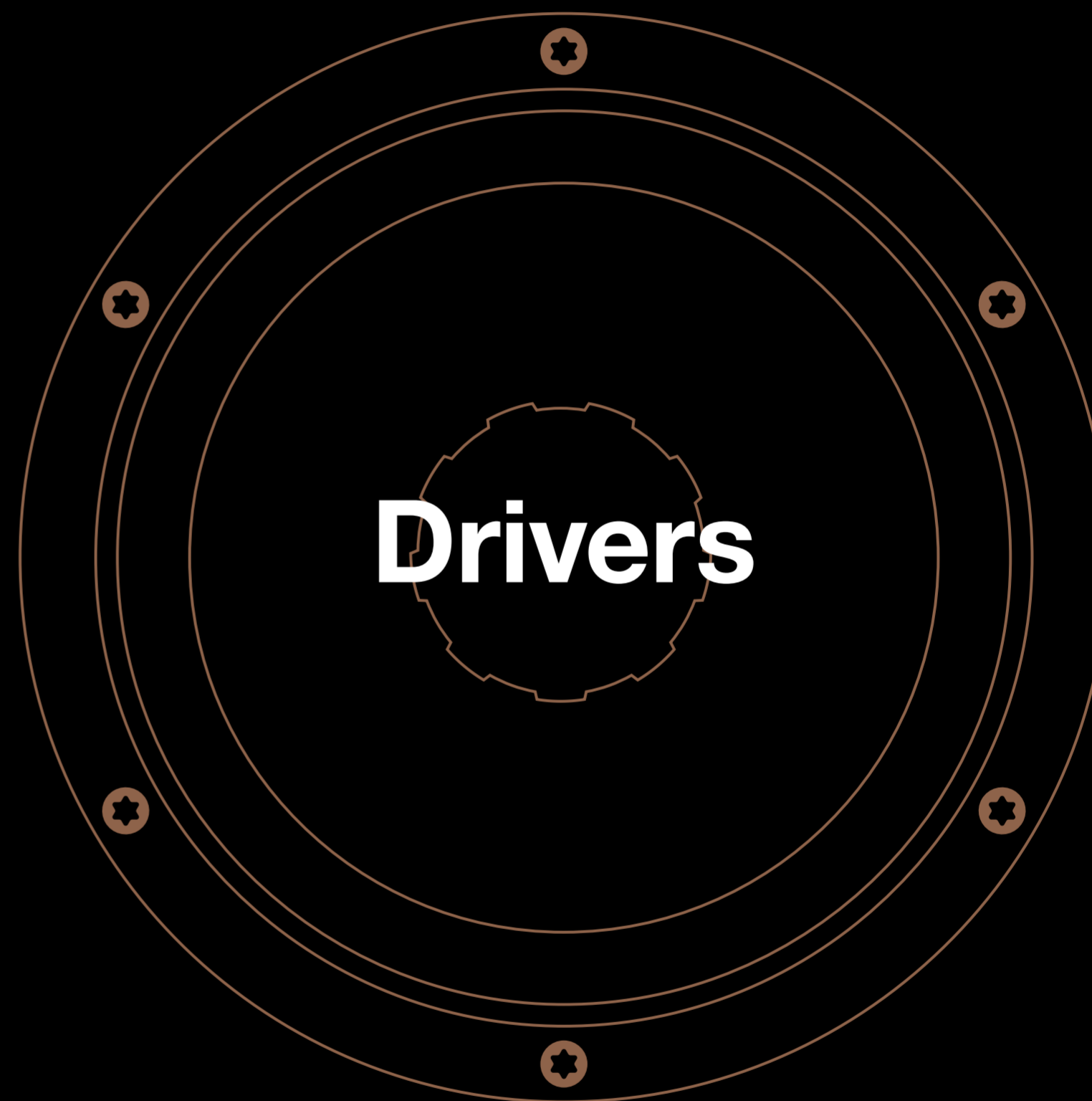
Each Contour cabinet takes three weeks to finish. It gets 11 coats of furniture-grade lacquer and 11 stages of meticulous polishing before we set it free into your living room.

And you don't have to worry about imperfections: our eagle-eyed specialists will strip it back and re-do the whole thing if they notice even the slightest scratch (they're really difficult to buy office furniture for).





And when you do put it in your living room, you might notice that the built-in feet feature internal, adjustable spikes. You might have carpet; you might have a hard floor. Either way, we didn't want you to have to turn the speakers on their head and fuss about with screwdrivers. Just put them down, adjust them, plug them in... and listen.





We still love the sound of our older Contours. Who wouldn't? But materials technology, and our knowledge of acoustics and psychoacoustics, has moved on since we designed them – so when we came to the third generation Contours, we were able to use all those new skills to update and re-engineer their drivers.

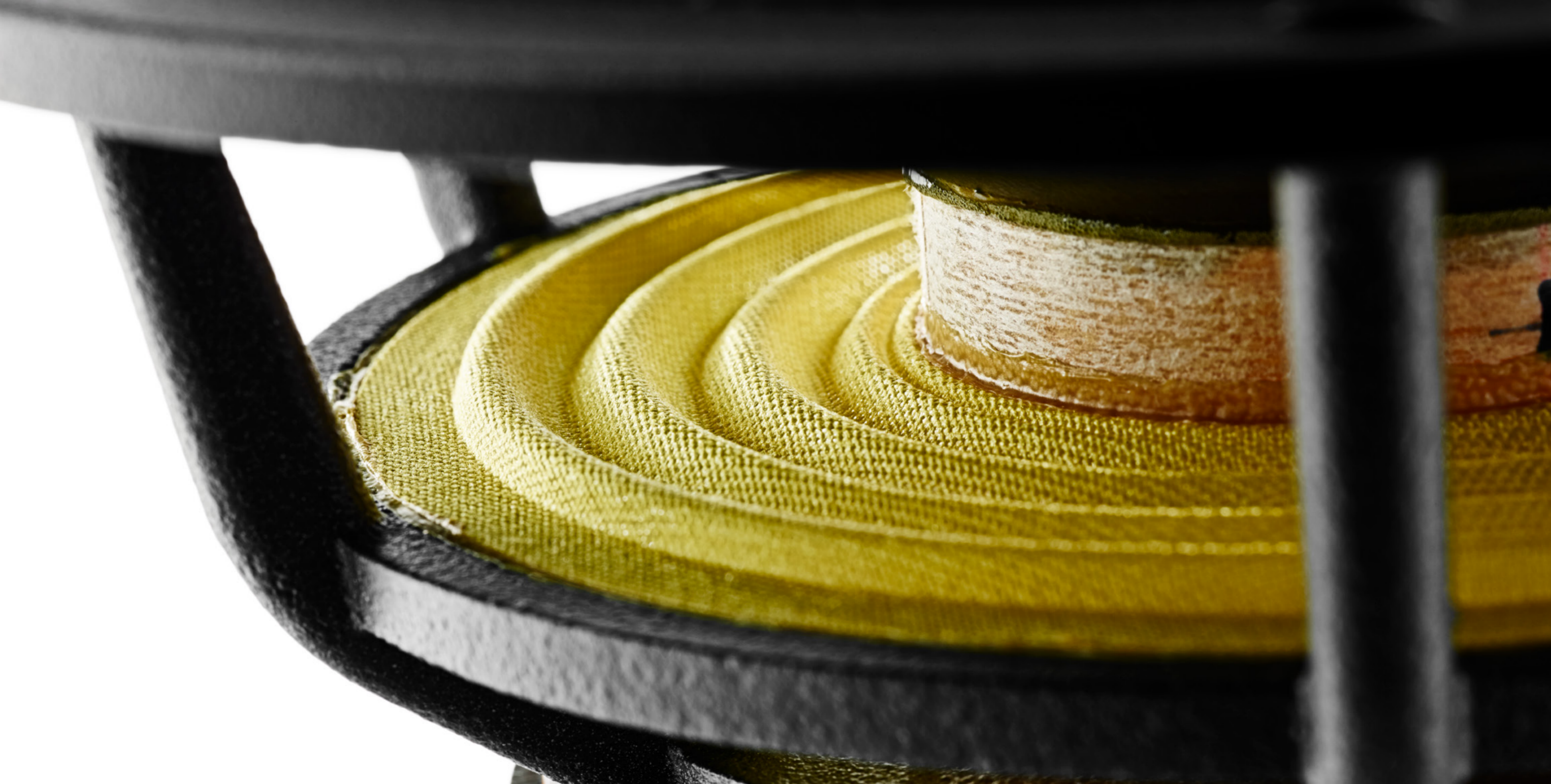
We're still using the same MSP (magnesium silicate polymer) cone material we developed ourselves, but since the last Contour came out in 2003 we've discovered even more innovative ways to use it. It already gives exactly the right combination of stiffness and damping; a perfect base from which our team, led by acoustics maestro Daniel Emonts, were able to work.

The Eureka! moment came when we started varying the material's thickness across the diaphragm's width. That gave us even more control over the way it moves – and, in turn, the sound it produces.

The result? Brand-new one-piece 18cm and 24cm extended-excursion woofers, in brand-new spiders, tailored for the Contour 20, 30, 60 and 25C. You won't find them on any other speakers..

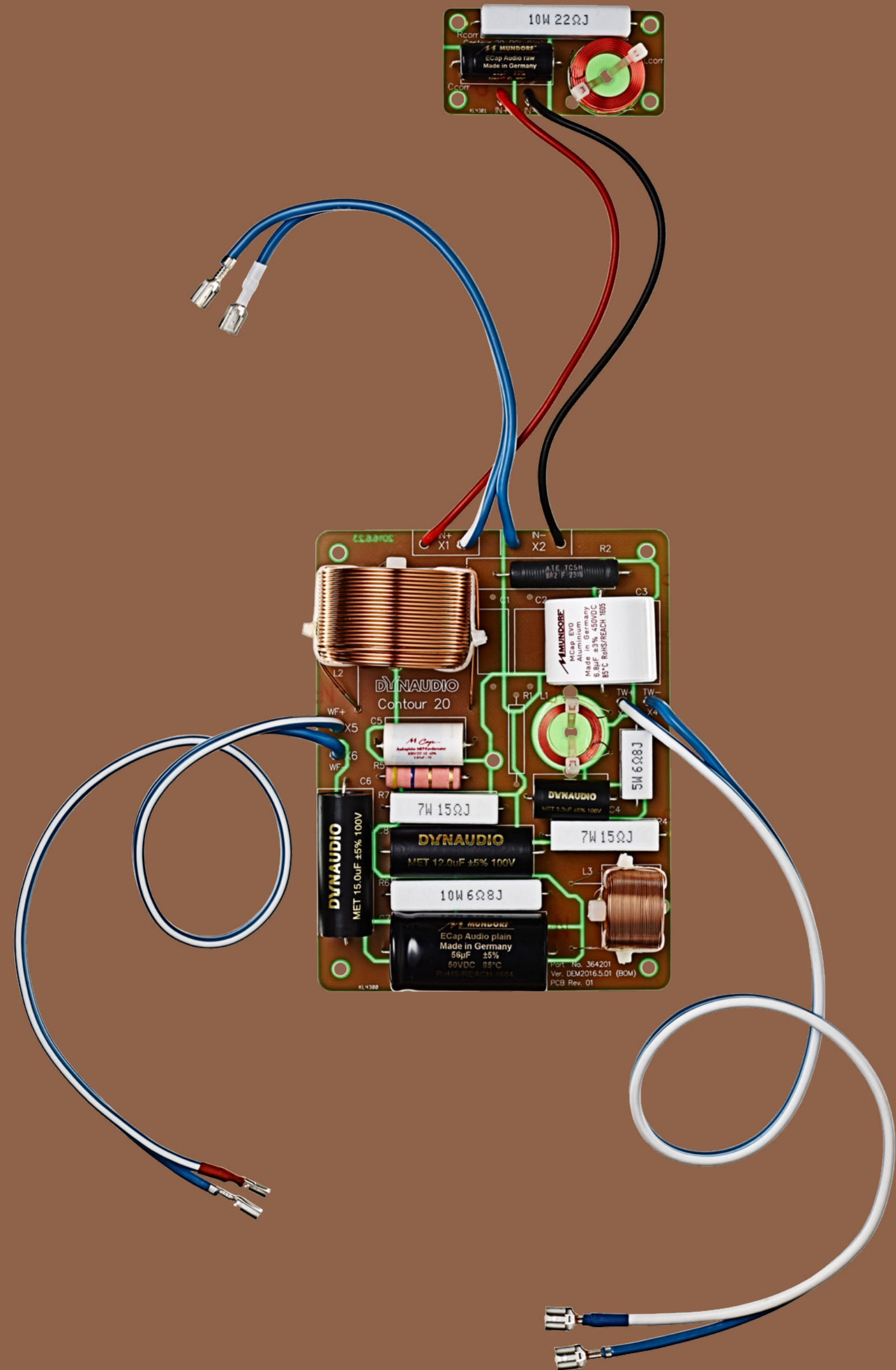
We even created a 15cm midrange version specifically for the three-way Contour 60. Daniel didn't want to repurpose an existing midrange unit for a job it wasn't designed to do, so the team hit the drawing boards to come up with a bespoke one. They don't mess around when it comes to sound (they can even tell the difference between different types of glue... just by listening).

They've done an amazing job.



Section cut of our  
**brand-new spider**





# Crossover

The crossover inside the speaker takes the signal from your amplifier and splits it into the frequency bands each driver needs to work at its best. After all, there's no point sending treble to woofers, and there's no point sending deep bass to the tweeter...

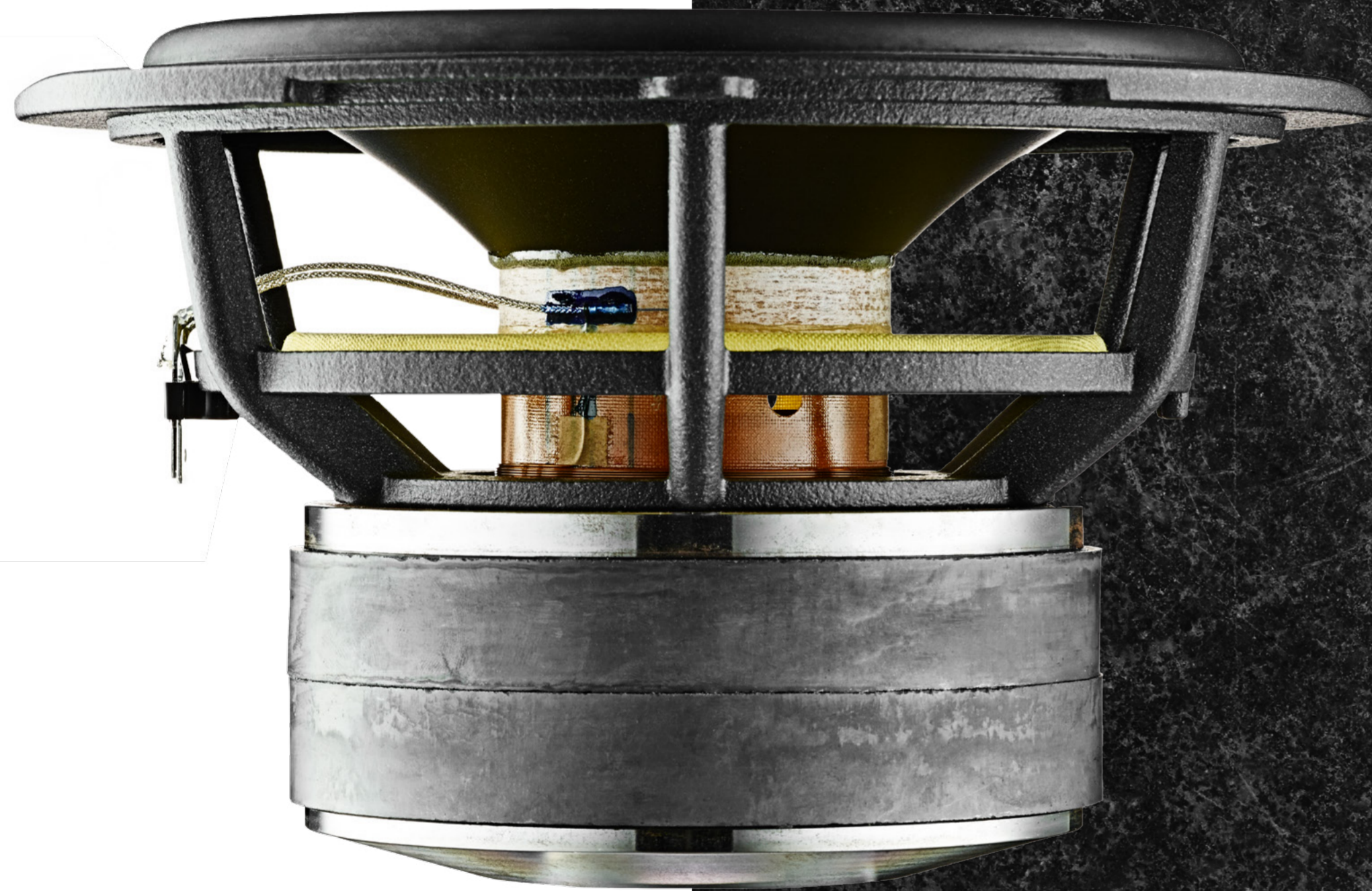
So while you might not see the crossover (it's lurking behind the back-plate inside the cabinet), you'll definitely hear its effect. Get it wrong and the speaker sounds wrong. Get it exactly right, and it can sound incredible.

We got it right.

We listened to old Contours for inspiration (as if we needed an excuse) and, because we're irrepresible tinkerers, decided to start from scratch. We wanted even better bass – so we redesigned the whole thing, including using ultra high-quality Mundorf resistors (which we selected by ear) and a brand-new wiring configuration, to do just that. It has new audiophile-grade copper air-coils and capacitors; a new low-resonance printed circuit-board; new WBT NextGen™ speaker terminals; a new, phase-optimised design; new overall impedance linearisation...

OK. What does all that tech-speak mean? It means now you can go even louder, and even lower, at even better quality. You're welcome.





# Magnet & voice-coil

A speaker driver is, in effect, a motor. Its fuel is the signal coming from your amplifier. So, it stands to reason that because we Danes are all about fuel-efficiency and clean living, we'd apply that same thinking to our speaker drivers.

How? Big magnets. The magnet, and the coil of wire that surrounds it, is what turns the electrical energy of the input signal into the speaker cone's physical motion. A bigger magnet – and therefore a bigger voice-coil – does that more efficiently.

We made our voice-coils from aluminium, which means we can make them extremely light – and also bigger than the old-style copper ones you'll find elsewhere. Larger diameters can have more windings, which gives us more control over the cone's movement, which means more control over the sound – even at high volumes and high frequencies. That would all be far trickier with a smaller magnet.

But it wasn't just a brute-force, bigger-is-better approach. We used Finite Element Analysis to optimise our design, and also settled on an ultra-potent neodymium magnet for more power. It has a symmetrical pole-piece between two magnet rings – giving the voice-coil better precision and less time distortion. And the whole assembly is re-vented for improved air circulation behind the cone – and to let it move more.

More movement equals more punch.

We experimented with smaller magnets and voice-coils on the Contour, of course – at sizes other companies might use. The measurements said they should work. Our ears said otherwise, so we went big. Our ears were right.



# The Contour family













DYNAUDIO Contour



Close  
your eyes  
and see



# This is Contour.

## Effortless simplicity ...

### 27 years in the making

When you get a Dynaudio Contour you're up in the big league. You can see it from the craftsmanship; you can hear it in the performance. And everyone else can, too.

It's been that way since 1989. The performance of the original Contour dropped jaws all over the world – and each update has done the same for the past 27 years.

Your jaw is about to do it again.

We've moved on since 1989. You've moved on, too. That's why we've applied all our experience, all our expertise – and all our passion – to looking at what made the original so good... and then making it even better.

It's time for a new legend. This is a speaker re-thought, re-designed, re-engineered and re-built for 2016.

This is Contour.

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26	The range



# It turned into a long meeting ... How do you top a legend?

It all started with a simple, throwaway question at a quick catch-up meeting: “Should we just stop making Contour and concentrate on a completely new speaker?” You could have heard a pin drop. Should we?

The question was dismissed instantly – but another took its place: what would we do if we were to make a new Contour today? A brand-new one? It turned into a very long meeting.

The answers were far from simple. How can we possibly improve something that’s been so loved for almost 30 years? What do we have to do to keep the spirit of the original? What if we mess it up?

Dynaudio has never stopped innovating. It’s what we love. So, yes, we were daunted – but excited, too. We decided to make the new Contour the foundation for a new line – a new philosophy – reaching into the future. And that meant a total re-design.

Visual tastes have changed – ours as well as yours – which meant a slew of concept drawings would be needed. Driver technology has moved on, so we

could use our own MSP cone material in even more innovative ways. And our understanding of psychoacoustics has grown immeasurably – unlocking the potential for even greater performance.

As we mulled over these points, the question changed rapidly from “Should we stop making the Contour?”, to “When can we start the new one?”, to “When can we release it?”.

Why make a new Contour? Because we love materials. We love craftsmanship. We love innovating. We love amazing sound, and amazing music. And we love a challenge.





# Contour 20

## The compact one

Compact? Yes. Compact-sounding? No.

The Contour 20 standmounter takes everything we know about speaker technology – we're Danes; we know a lot – and puts it in a compact, clean and great-sounding package.

Its sweet-toned Esotar<sup>2</sup> soft-dome tweeter has been a legend in its own right for years. It's commonly regarded as one of the world's best-ever drivers – and because it's been such a great friend to so many millions of ears (and a key part of Contours past), we just had to give it another outing.

The extended-excursion 18cm woofer, though, is brand new. It's powered by a lightweight aluminium voice-coil and a vented dual-ferrite magnet system, and was created by driver specialists Danny Pasfall Christensen and Andreas Eberhardt Sørensen and their team under acoustic maestro Daniel Emonts. (They can hear the differences between different types of glue. We like those guys.)

It's made from MSP – a material we developed ourselves, and have been using in our drivers since 1985. MSP gives exactly

the right combination of stiffness and damping – which you'll hear as exactly the right combination of power, finesse and control. Just what a Contour speaker should have. But we've taken it further: we've varied the diaphragm's thickness across its surface, which gives even greater control over its sound.

Making a Contour without its signature baffle would be like making a car without wheels. Unthinkable. But there's always room for improvement – and our designers love to stretch their legs (you should see the number of sketches they produced for just this part). This baffle is aluminium, and set into the cabinet. Its chamfer is included in the driver's basket – which not only looks great, but also reduces unwanted high-frequency diffraction effects for clearer treble, and provides a solid foundation for the drivers to do their work. A solid foundation means improved high-volume performance at low frequencies, too (although your neighbours might not thank us for that).

And although we might have changed the cabinet's shape (square is out; curves are in), the new design tips a respectful nod to older Contours. Look at it from the top; you'll see the old baffle design in its shape. But it isn't just for show – the new shape marries those aesthetics with cutting-edge acoustic physics. Its multi-layered construction is extremely well-damped, which means the Contour's sound goes exactly where it's supposed to: forwards.

We've redesigned the internal wiring and crossover, too. You won't see what we've done, but you'll hear the effect: amazingly clear sound, even off to the sides of the speakers. We love it.

**Pure, honest, compact. This is Contour 20.**



Say hello to the brand-new Contour 20. Everything we know about speaker design in a compact, clean, great-sounding package.



# Contour 30

## The medium-sized one

Mid-size room? Mid-size speaker.

Contour 30 steps it up a notch from the 20. Of course, it still treads the same path – one of honesty, transparency and sheer entertainment, but it puts it all in a bigger package.

We've endowed Contour 30 with two 18cm MSP drivers, as well as doubling up on the rear ports. What makes our drivers so special? Variable thickness across the diaphragm, for one thing.

And aluminium voice-coils, for another. We can make them extremely light – but also bigger than the old-style copper units you'll find elsewhere. Lighter weight means larger diameters, which means we can use more windings, which means we have more control over the cone movement. And that means more control over the sound – especially at high frequencies and high volumes. Sure, we experimented with small voice-coils on the new Contour – the size other companies might use. The measurements said they should work for Contour. Our ears said otherwise, so we went big. Our ears were right.

And, of course, we've included the ultra-pure, ultra-clear, ultra-sweet-sounding Esotar<sup>2</sup> fabric soft-dome tweeter. You might also notice that we've put it back on top of the mid/bass drivers. Never let it be said that we don't read our fan-mail.

And because we're irrepressible tinkerers, we've given the inside a makeover, too. As with the Contour 20 and Contour 60, the Contour '30 has new baskets to hold the drivers themselves, as well as a new crossover and new wiring. We listened to our old Contours for months – the whole range (as if we needed an excuse) – and

decided we wanted the crossover to serve up even better bass. So now, you can go louder and lower. You're welcome.

While our engineers and designers were hunkered down listening to everything from jazz, to classical, to metal, to electronica, the team in our on-site factory were scouring sustainable sources for high-quality materials and finishes. They make sure all Contours are furniture-grade: perfectly built, perfectly finished and perfectly packaged.

**Powerful, controlled, remarkable.  
This is Contour 30.**



Power, control and elegance. The Contour 30 has been redesigned inside and out to deliver a truly memorable performance.



# Contour 60

## The big one

If our designers loved working on the Contour 20 and 30, the Contour 60 was an even bigger ticket for them.

It's a three-way design. At the bottom sit two brand-new 24cm MSP woofers (bigger, redesigned brothers of the 18cm drivers we've used in the Contour 20 and 30). At the top, like the jewel in the crown of every other speaker in the new Contour range, is the magnificent Esotar<sup>2</sup> soft-dome tweeter.

Between them is a completely new 15cm midrange driver. Like the rest of our drivers it uses an aluminium voice-coil. It also deploys a neodymium magnet system, and was designed using Finite Element Method optimisation techniques. We set Daniel, Danny, Andreas and their guys to work on it because we wanted the Contour 60 to retain that signature midrange sound in a large cabinet, without having to repurpose an existing driver for a job it wasn't designed for. They did an amazing job.

All the drivers are powered by low-mass, high-durability aluminium voice-coils. And the tweeter's voice-coil sits – as they do across the Contour range – in a special magnetic ferrofluid. It works like a shock absorber and dissipates heat to reduce stress on the moving parts – which improves power-handling, widens the frequency response and... and now we're just boasting. What it means for you, in your favourite room, listening to your favourite music, is consistent Contour quality, at neighbour-bothering volumes (if you're the type), all day.

The Contour 60 shares the same redesigned crossover and components as the rest of the range – and, of course, has Allan Kristiansen's seal of factory approval on the construction

and finish (his team will spot even the tiniest defect and spend three weeks refinishing not just one, but both speakers so they're identical as a pair. They're really hard to buy office furniture for).

The new multi-layer curved cabinet and sleek-but-solid aluminium baffle provide your music (which was likely mixed using Dynaudio studio speakers, too) with a robust, defined acoustic foundation. So much so that, if we've done our jobs right, you'll forget they're even there and just... listen.

**Commanding, clear-cut, absolute. This is Contour 60.**



If you have a bigger listening room – or if you just like to play it loud – the Contour 60, with its unique midrange driver, is your new best friend.



# Contour 25C

## The one for movie-lovers

It's been said that sound accounts for as much as 80 per cent of the moviegoing experience. And we can't argue with that (musicals, especially, don't have quite the same impact with the volume set to zero).

That's why we created the Contour 25C centre-channel. Mix and match it with a combination of Contour 20s, 30s and 60s for a seamlessly integrated multichannel system – a system on which you know you'll be able to enjoy stereo music as much as you will a teeth-rattling blockbuster.

Why? Because it's essentially a Contour 30 turned on its side, with the tweeter moved to the middle. The super-detailed Esotar<sup>2</sup> soft-dome unit is flanked by a pair of 18cm MSP drivers – all of which use the same high-end lightweight aluminium voice-coils and magnetic ferrofluid technology as the rest of the Contour range.

Our loudspeakers are used in music and movie production studios all over the world – so we know how crucial it is to reproduce multichannel sound to its fullest potential (you should come to Movie Night at Dynaudio HQ. It's amazing..... but you'll have to be able to speak Danish).

And if you're investing time in watching a movie (or even a TV show), you want that experience to be as clear, dynamic, assured and powerful as it can be. Most of the speech information comes out of the centre-channel, which is why the Contour 25C's combination of legendary materials and balanced, neutral sound is so ideal.

That's why the Contour 25C doesn't compromise. All the knowledge, care and enthusiasm that goes into our upright speakers is here, too. The finish is furniture-grade; the materials top-quality (we've even redesigned the baskets that hold the drivers in the cabinets – and yes, we know you can't see them; we wanted to do it anyway).

If you want a companion or an upgrade for your existing Dynaudio system, this is it.

**Defined, potent, literal.  
This is Contour 25C.**



The ideal companion to our upright Contours. The Contour 25C seamlessly integrates for an awesome surround-sound performance.



# How do you design a new legend? Experiments, arguments, tests, more experiments, designs, prototypes ...

You can't reinvent the wheel. But you can change the spokes. In redesigning the Contour range, we changed a lot of spokes.

We worked hard to retain the original's DNA; its character. But we also wanted to provoke – so we gave our teams free rein to experiment with different materials, different techniques and different designs.

That meant scaring ourselves a little sometimes. Like when we did some A/B listening tests on small voice-coils compared with our signature large ones. That's a big step. This time, it proved to be a step too far – they just didn't sound as good as the technology we've been using for years – but we didn't simply discount the idea. We listened.

Then there's the time when Malte Köhn, Lead Product Designer on the Contour, rocked up to a meeting with armfuls of sketches (you can see some of them here). "I tried to work with non-traditional colour and material combinations," he says. "But I wanted to keep the Contour's classic design, which is quite edgy and brutal. We turned it into something that's more elegant and technical."

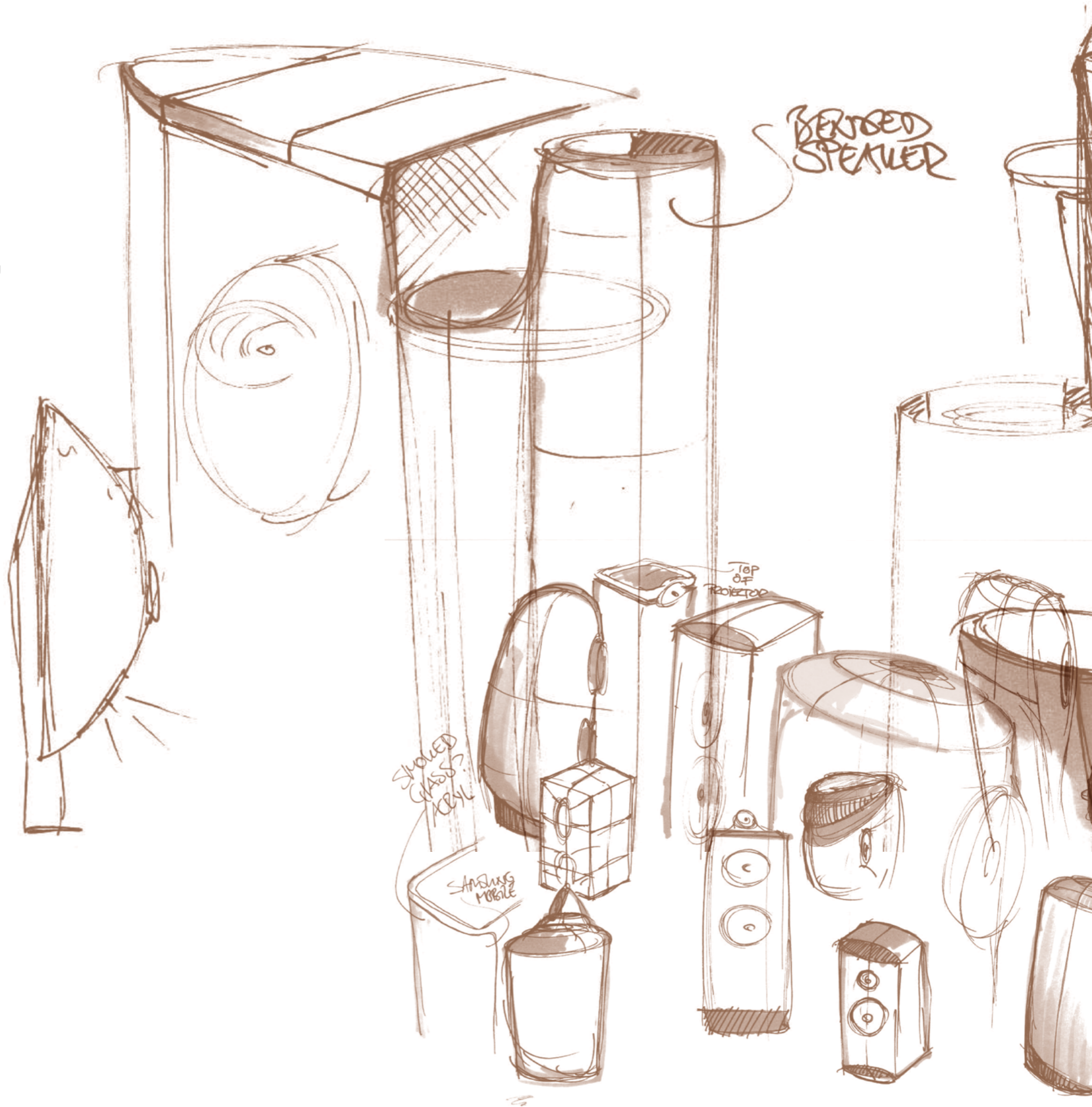
Malte is really proud of his design – and he should be, because that's the one we all chose as a group.

Michael Rohde Bówadt, our brave VP of product management, was the one who took the leash off. "We went very wide in the beginning," he says. "I told them to just make the best drivers in the world. The best cabinets in the world. To approach it all in a different way."

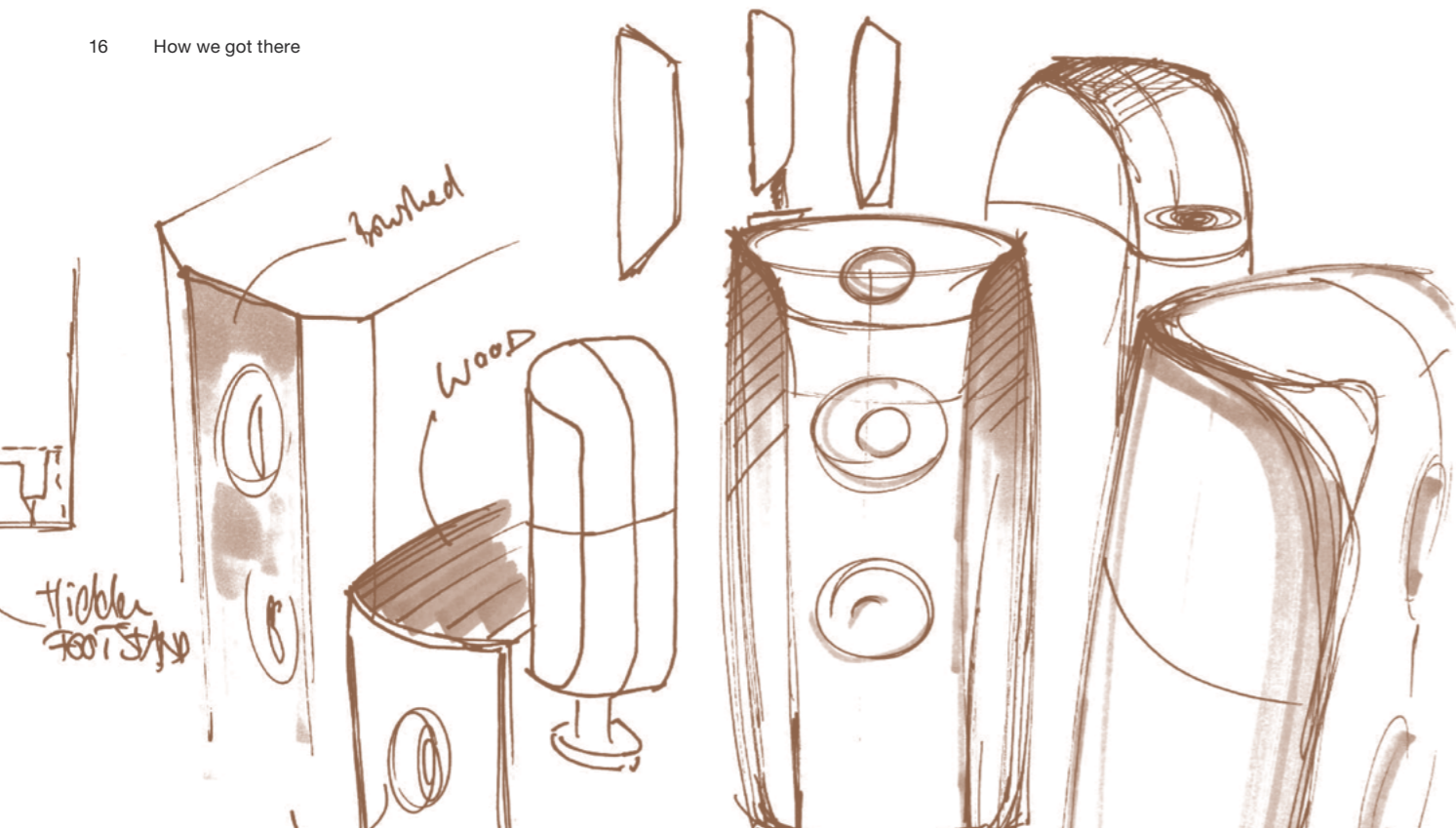
No pressure, then.

"It backfired a bit! But it was also very interesting. We got some very interesting results, provoked a lot of discussions, and were able to really zero in on what we wanted to do next."

One of the things that came out of those discussions was using different driver materials. Ultimately we decided to stick with our tried-and-true MSP – but we told Daniel, Andreas and Danny that we wanted it to sound even better. Their Eureka! moment came when they started varying the material's thickness across the diaphragm, because it means the whole cone is optimised for the frequencies it's been built to reproduce. And it works.







Michael insisted on keeping the metal baffle. It's part of the Contour's design heritage, after all, and there are some incredibly good acoustic reasons for keeping it. It's rigid, solid and extremely well-damped (which lets those fancy new MSP drivers do their thing as exactly they should).

But now it's made from aluminium instead of iron.

We decided on aluminium because we can shape it. You can see that from the drawings. It chamfer fits with the gently curved cabinet edge, and its milled shape gives a modern feel to the Contour's classic performance.

But it also meant we could bring other details to the party: the driver baskets themselves are chamfered, too. We love how they look, but they also help to reduce diffractions. Good job all round, then (we even went so far as to have more than one argument about whether the screws should be visible. The "yes" side won, and even our minimalist contingent had to agree that it was the right choice).

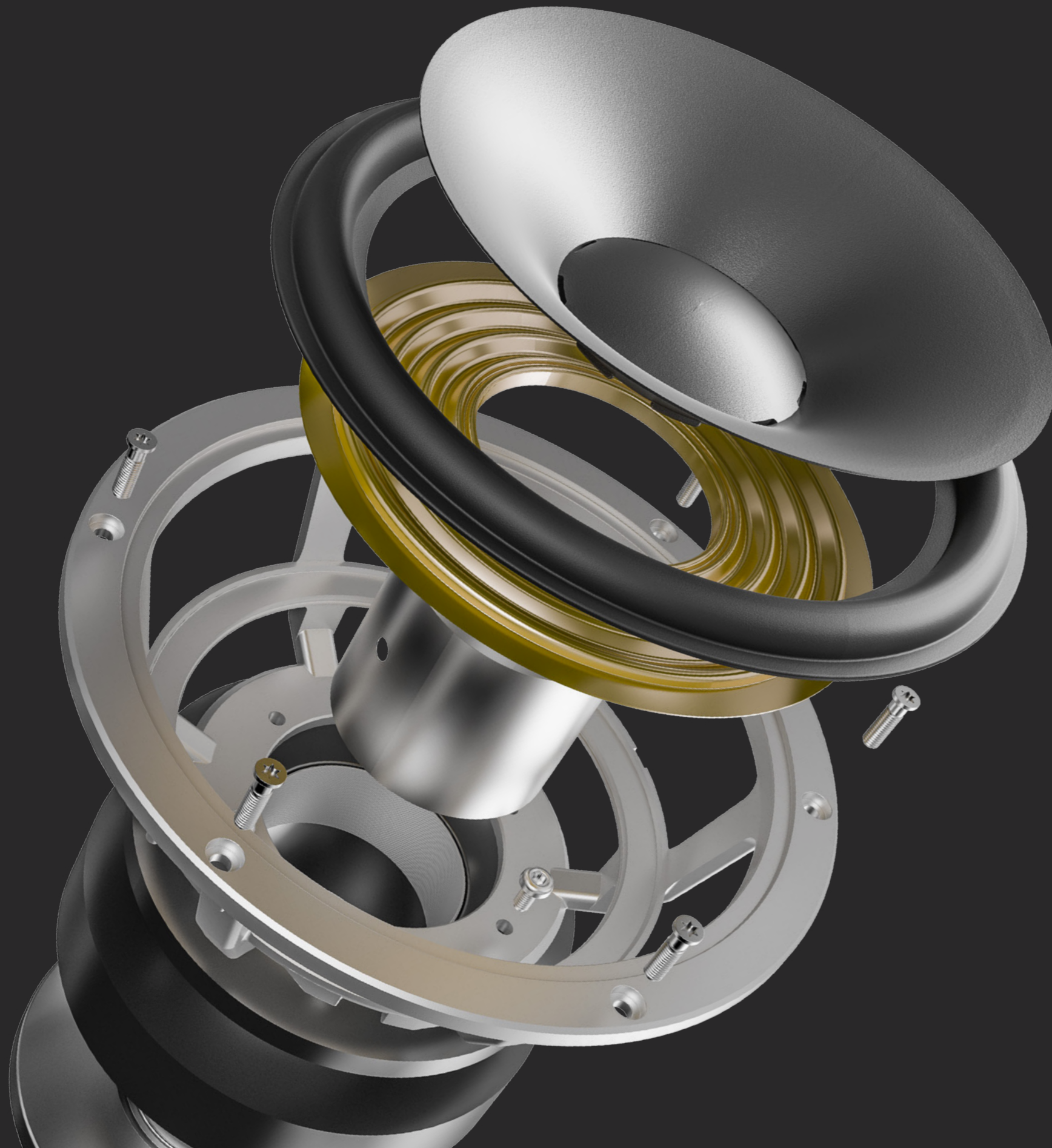
In developing the new drivers and crossover, we turned to Daniel Emonts and Mark Thorup. (Mark started here as an R&D engineer in 1983 and rose to the lofty heights of strategic product manager.) Between them they're the gurus of our design department. They know everything. We took their findings to our R&D team and psychoacoustics guys, said "aim this way", and they got to work.

When we design, we experiment. We talk. We play. We listen. We don't simply do what we did before, and we definitely don't try to make it easier for ourselves.

We got to where we are on the new Contour because we (and you) love the original. It's still there inside. But now, the legend can begin again...

When we design,  
we experiment.  
We talk. We play.  
We listen. We don't  
simply do what we  
did before, and we  
definitely don't try  
to make it easier  
for ourselves.





# We listen to glue

"I know exactly what goes into this," says Daniel Emonts. He's our lead acoustic engineer, and the man behind our drivers. "I know all the materials and everything. But there's magic behind it too, when you hear the result."

Daniel should know. In our R&D department, they listen to everything. Everything. Even glue. "We decided to change the glue between the voice-coil and the cone. We thought it would take two or three months, but we ended up taking a year measuring, recording and listening," he says. "I think 80 per cent of us could tell the difference between the glues. And now that's going to be part of our R&D procedure. Listening to glue."





We all listen. That's how we make our speakers. Sure, we measure stuff; we have to. But the computers are just tools: there's so much more going on than just a frequency curve.

Contour has all new drivers. The only one we aren't changing is the Esotar<sup>2</sup> tweeter, which you can find on all our high-end speakers, and which – no matter how old it gets – is still a mighty tough act to follow. New drivers means new crossovers, which means new cabinets, which means every component affects every other component, which means ... listening.

We make everything for the sound – not for the data.

There's nowhere to hide. This is a passive speaker – so there's no digital signal processing on board; no room correction. And that's where our 40 years of experience comes in: we use tricks with voice-coils to vary the points at which the speakers fire their sound. We're talking milliseconds – microseconds – of delay, which makes the sound beam upwards, directly to your ears. We're talking tiny diffractions, how the curve of the speaker edge affects the sound of the tweeter and how the edges of the cabinet affect the off-axis performance (so the sound is just as good off to the sides of the Contour as it is right in front).

And have you noticed how, top-down, the cabinet shape echoes the baffle of the previous model?

For the first time in Dynaudio's history, we're switching from rectangles to curves. But that isn't just because "it looks nice" (even though we think it really does). There are solid acoustic reasons behind everything we've done in the Contour – and everything else we build.

But while there are changes, we haven't veered from the path. We haven't deviated from the principles we've always held when designing great-sounding speakers. We test, we listen, we test some more. We take our prototypes home and we listen there, too. And we don't stop until we're happy with the sound.

And when we measure – we constantly check our work – sometimes the readouts look "wrong". But so what? The experience of sitting there is the only thing that matters.

What do Dynaudio speakers sound like? Nothing. They don't have a sound. All you'll hear is exactly what the artist intended.

It certainly gives our competitors something to do with their time. Ever tried reverse-engineering magic? It takes a while ...



Don't  
hurry.  
Make it  
correctly  
the first  
time.

Invented in Denmark,  
perfected in Denmark.  
Why we always strive  
for truth in sound

Allan Kristiansen is one of the most expensive people at Dynaudio. He's been with us for 27 years – and during that time he's said "No" hundreds of times.

Every time Allan says "No", it costs us money. That's because it means a speaker cabinet has to go for another round of lacquering and polishing (which takes three weeks to finish). Or that a piece of cabling isn't mounted properly. Perhaps a missing screw. Allan sees everything.

But we don't mind.



We are proud of our work. Ask anyone here and you'll get the same answer.

We don't mind because every time Allan says "Yes", it means something perfect has left our factory.

"The key is not doing it in a hurry," he says. "Don't hurry. Make it correctly the first time."

We make the Contour in-house, you see. It's made in Denmark because external assembly plants might not have an Allan. From the furniture-grade cabinets (which go through 11 stages of lacquering and polishing before we set them free), to the drivers (which are made from magnesium silicate polymer – a material we developed ourselves), to testing, packaging and assembling up to 400 parts, it's all done at our headquarters in Skanderborg, Denmark.

We do everything in Denmark because that's how we've always done it since we started in 1977. Our founders knew the only way to produce a truly great loudspeaker was to oversee every part of the design and production themselves.

So, we developed our own driver technology – including our acclaimed coated soft-dome tweeters. We worked

in secret (we were a bit mysterious back then) and developed our own manufacturing and testing methods. And we made thousands of prototypes. We did it so that the only things that leave our factory are perfect, honest, handcrafted speakers. Every time.

"We are proud of our work," Allan says. "Ask anyone here and you'll get the same answer. What we're producing here is going to go in someone's house; someone's car. They might have saved for several years, sometimes, to get it. So we all know it has to be perfect – when we say Dynaudio is 'proud and pure', that's true. That's absolutely true."

We hope you love listening to our speakers as much as we loved making them for you.





What do Dynaudio speakers sound like? Nothing. *They don't have a sound. All you'll hear is exactly what the artist intended.*



