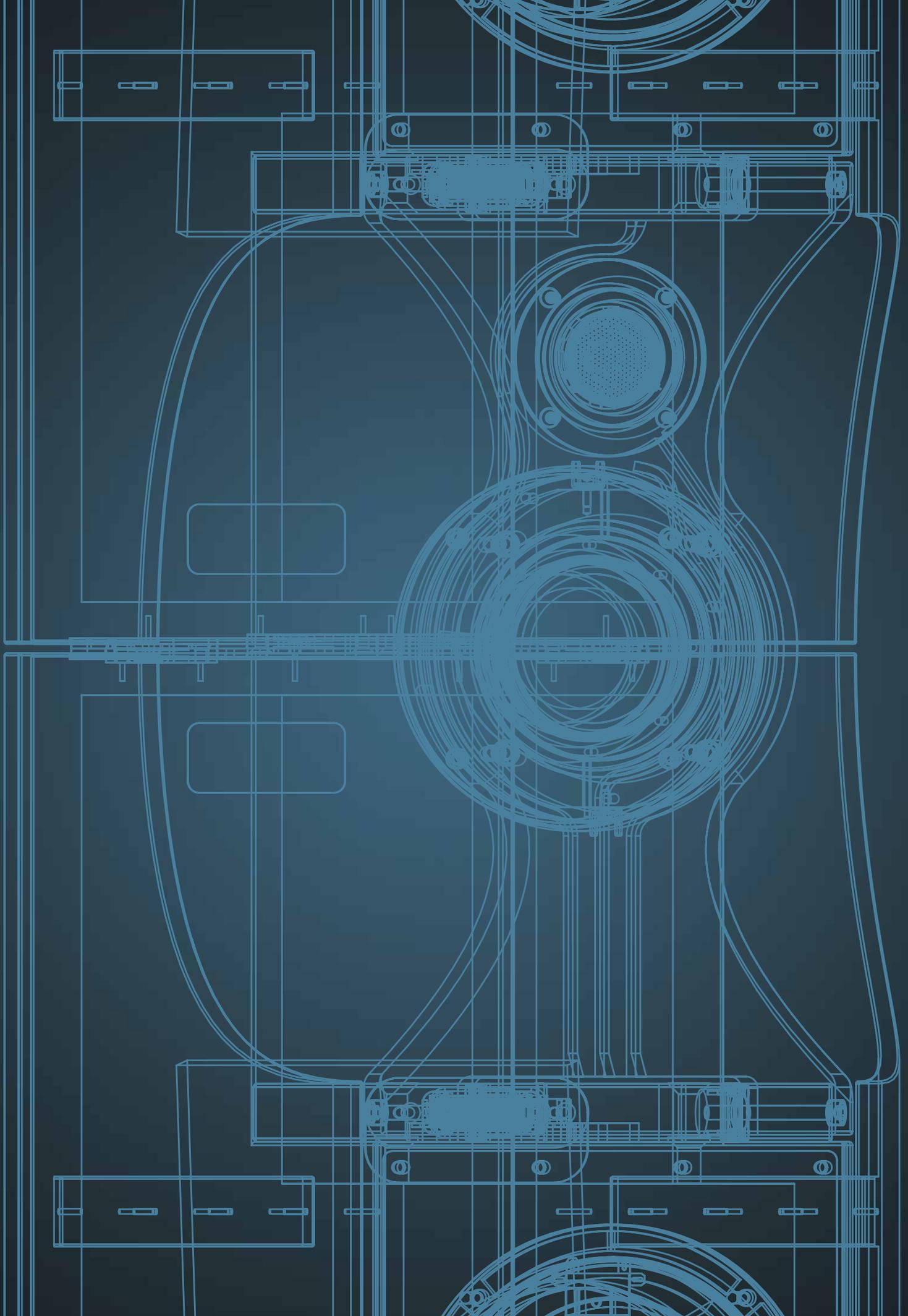


PMC[®]

factfenestria

NOTHING
BUT
MUSIC



WHAT DRIVES US

At PMC, we believe that music is what really matters; it's what moves us and gives us the passion for what we do. The company was founded because we felt there were no loudspeakers transparent enough to convey all of music's expressive power — and we knew we could remedy this using advanced engineering and a holistic design approach.

This is harder than it sounds. It is often easier to create loudspeakers that colour or flatter music, adding their own sound — but that is not the PMC way. The quest for sonic neutrality and transparency has always been our obsession, in the interests of reproducing music as vividly and faithfully as possible, just as the artist intended.

As we like to say, loudspeakers are where science meets art — we take care of the science so you can connect with the art.



Peter Thomas, Owner, and Oliver Thomas, Head of Design

THE LINE WE TAKE

From PMC's beginnings, our designers discovered that the only way they could meet their own exacting standards was to custom-design everything themselves. Ever since, our products have been the result of solid engineering principles coupled to painstaking design, construction and testing standards. We consider every element and its audible effect, hand-select every component, hand-build every speaker, and test and listen to every finished product. We also have an open-minded approach, incorporating innovation from other industries and disciplines. Our recent products make use of design concepts adapted from high-performance car manufacturing, cutting-edge laser-based test and measurement techniques, structural engineering and materials science, all to push the boundaries of loudspeaker design.

Today the success of our approach is clear. As you can read overleaf, our customers include countless distinguished names in the world of professional music composition, recording, broadcast and film, as well as discerning audiophiles.



Our groundbreaking partnership with the UK's NPL (National Physical Laboratory) resulted in a pioneering acousto-optic mapping process. It uses lasers rather than microphones to analyse the propagation of sound, creating a 3D map and animated model of the sound produced by the loudspeaker — so we can see exactly what you can hear.

THE SPEAKERS THAT MAKE MUSIC



Artists and institutions who made music with PMC, composing, mixing or mastering with our Emmy-award-winning loudspeakers:

JOHN NEWMAN
ELBOW
EMBRACE
SADE
STEVIE WONDER
COLDPLAY
KRAFTWERK
PETER GABRIEL
ROBBIE WILLIAMS
BRIAN MAY
MARILLION
SONY MUSIC
UNDERWORLD
TONY BENNETT
BASEMENT JAXX
UNIVERSAL MUSIC

METROPOLIS STUDIOS
STUDIOS 301
TELDEX STUDIOS
EMI
ROYAL SHAKESPEARE COMPANY
DECCA
ORF
THE DÜSSELDORF UNIVERSITY OF MUSIC
THE ROYAL SCHOOL OF MUSIC
WARNER MUSIC
BBC RADIO
BBC TV
CAPITOL STUDIOS
CHESKY RECORDS
NY UNIVERSITY
TAPE LONDON

Just some of the movie and TV music made with PMC:

GAME OF THRONES
SPECTRE
SKYFALL
SAVING MR. BANKS
MAN OF STEEL
THE ADJUSTMENT BUREAU
WALL-E
INCEPTION
TRON
THE DARK KNIGHT
GRAN TORINO
DEADPOOL 2
AVENGERS INFINITY WAR
WATCHMEN
DAY OF THE DEAD
HALLOWEEN
HANCOCK

INDEPENDENCE DAY
HULK
THE FUGITIVE
ALIEN VS PREDATOR
THE SIXTH SENSE
THE PASSION OF THE CHRIST
DIE ANOTHER DAY
PLANET OF THE APES
FINDING NEMO
FINDING DORY
CHICAGO
PIRATES OF THE CARIBBEAN
TERMINATOR 3
AMERICAN BEAUTY
LOVE ACTUALLY
MAD MEN
FARGO...

Whether you listen to our speakers in a world-class studio in LA, London, Nashville, Tokyo, Berlin or your favourite listening room at home, you will hear the music exactly as the artist intended it.

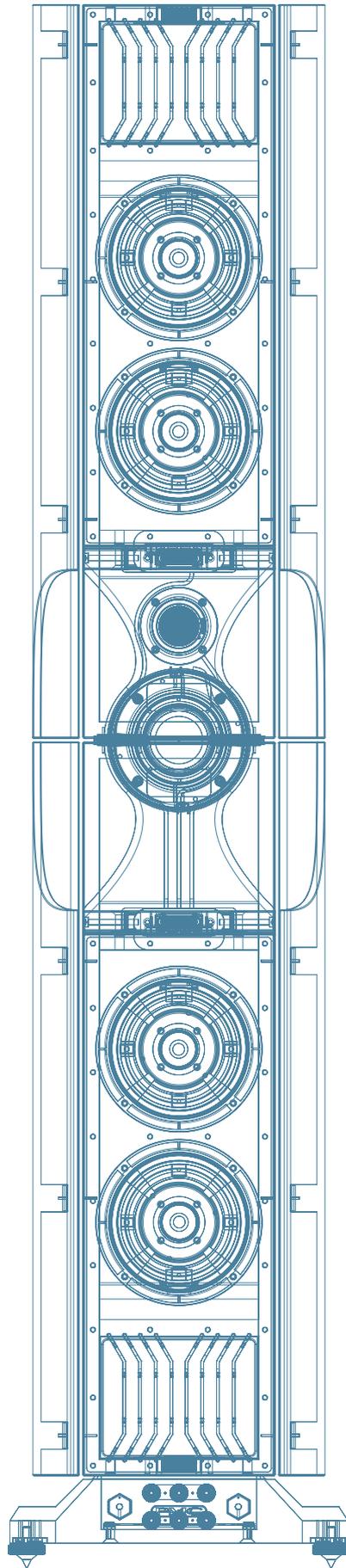


Emmy® award
©ATAS/NATAS

NOTHING BUT MUSIC

Design, skill and great beauty meet in PMC's latest fact model, the engineering defining the aesthetics and the aesthetics defining the engineering. The product of advanced acoustic research and cutting-edge cabinet and driver design, plus PMC's Advanced Transmission Line (**ATL**[™]) bass-loading technology, the result is a distinctively stylish audiophile speaker that adds no sound of its own to the music it produces. This is why we call it...

...the loudspeaker you'll never hear





INTRODUCING

fenestria

fenestria achieves a new standard of lifelike, vivid precision at all listening levels. Other loudspeakers produce unwanted vibrations in the drivers and cabinet that colour the sound. Just as a shaky camera cannot produce a clearly focused image, these unwanted vibrations reduce the clarity and precision of the sonic imaging. With fenestria, such unwanted resonances and unnatural colouration are engineered out of the design, leaving nothing but music. In sonic terms, the speaker itself disappears, replaced by a completely transparent window on the music.







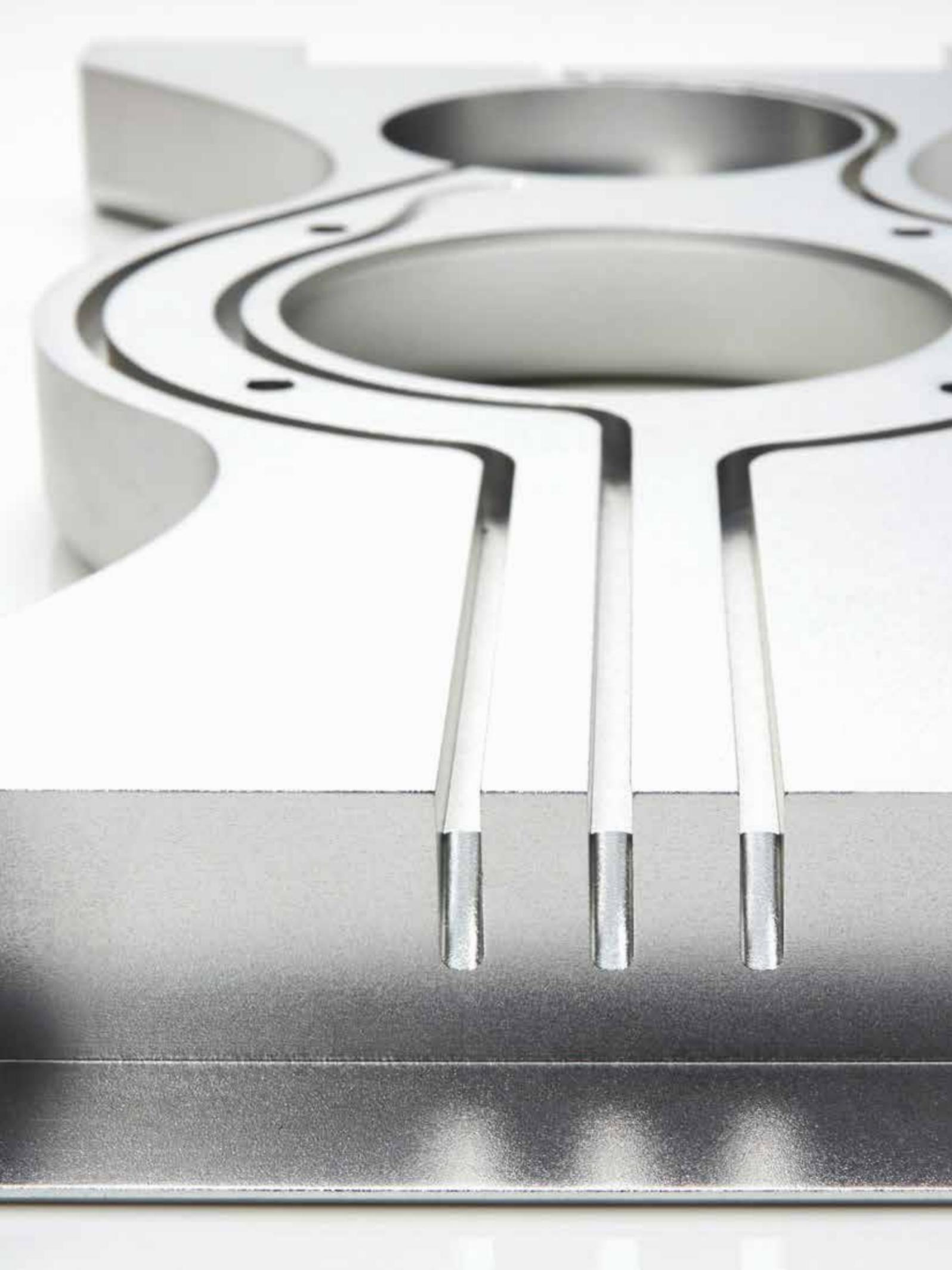
NO ADDED FLAVOURS OR COLOURING

To create fenestria, PMC used advanced design and engineering techniques to eradicate unwanted colouration, following extensive in-house acoustic research into the speaker's transmission line, drive units, and crossover. As fenestria evolved, every element that might suffer from unwanted vibration was subjected to analysis using accelerometers, and the results were used to hone the design.

These studies directly inspired the design of the loudspeaker's distinctive central module, or 'nest', which houses the mid- and high-frequency drivers. Milled from a billet of solid aluminium, the nest is 'decoupled' from the rest of the cabinet to prevent unwanted energy passing from fenestria's enormously powerful bass drivers and transmission line into the drivers in the nest — a perfect example of form following function. The resonance-resistant material used for fenestria's cabinet was also heavily braced to minimise unwanted vibration.



The nest's minimal, sculpted form excludes the audible colouration that derives from baffle reflections in traditional cabinet loudspeakers, creating the sonic impression that fenestria's mid-range and treble drivers are suspended freely in space



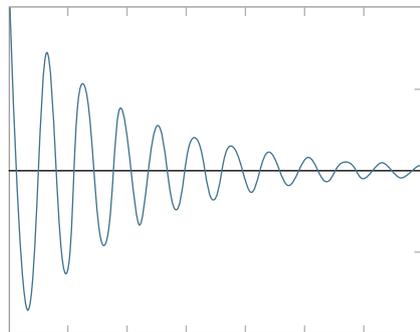
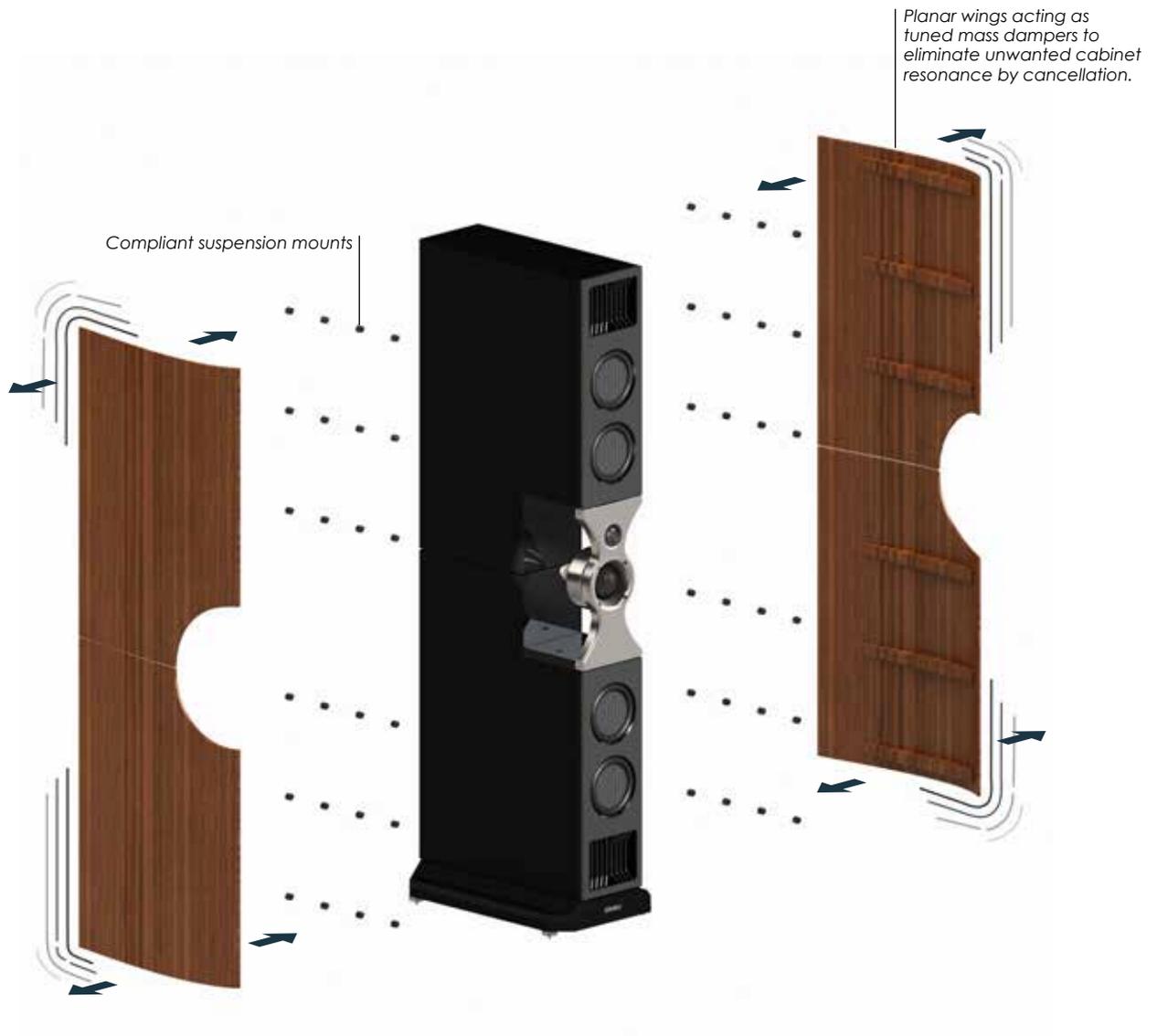


LITERALLY GROUNDBREAKING

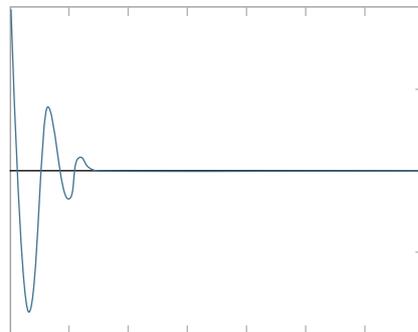
All loudspeaker cabinets, irrespective of their structure and weight, radiate energy at their resonant frequency. The studies carried out during fenestria's development phase gave the design team the precise data they needed to tackle this issue in the evolving loudspeaker. Ingeniously, to eliminate these unwanted vibrations, they turned to techniques used in structural engineering to reduce damage during earthquakes. Adding a large weight (a *tuned mass damper*) to the top of skyscrapers prevents the formation of destructive seismic vibrations. As the building oscillates, the mass moves in opposition, cancelling out the unwanted resonances.

Using the same principles, the planar wings of fenestria's cabinet have been precisely engineered to resonate in opposition to rest of the loudspeaker assembly, so that unwanted vibrations are eliminated before they ever leave the cabinet.

Simply put, the side panels cancel out all of the unwanted energy produced by the drivers, leaving nothing but music.

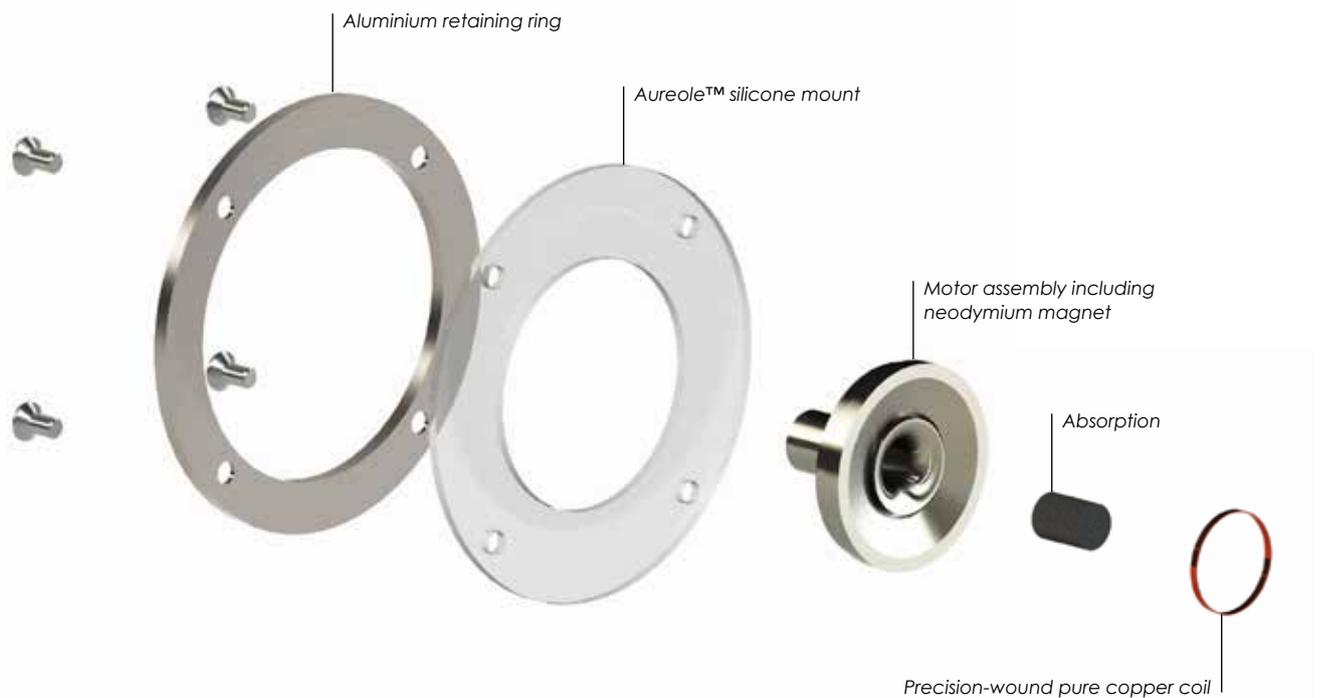


Without planar wing mass damping



With planar wing mass damping

The diagrams above show how unwanted cabinet vibrations, left untreated, continue to resonate and distort speaker output, and, by comparison, how the vibrations are cancelled by mass damping in fenestria.



A DETAILED MINIATURE

The tailor-made high-frequency soft-dome driver in fenestria builds on PMC's heritage of respected treble driver design, delivering natural, open-sounding highs and extremely stable three-dimensional imaging, augmented by the PMC-designed dispersion grille.

Using a neodymium magnet assembly, the driver was designed to be extremely light and compact. This allowed it to mount tightly with the mid-range driver in the nest, making it as close to an ideal point source as possible — another example of engineering and aesthetics working hand in hand. An extra silicone-damped suspension mount, the Aureole™, protects the treble unit, keeping it perfectly focused and still.

Aluminium former



SONOMEX™ soft dome



Chassis

Dispersion grille

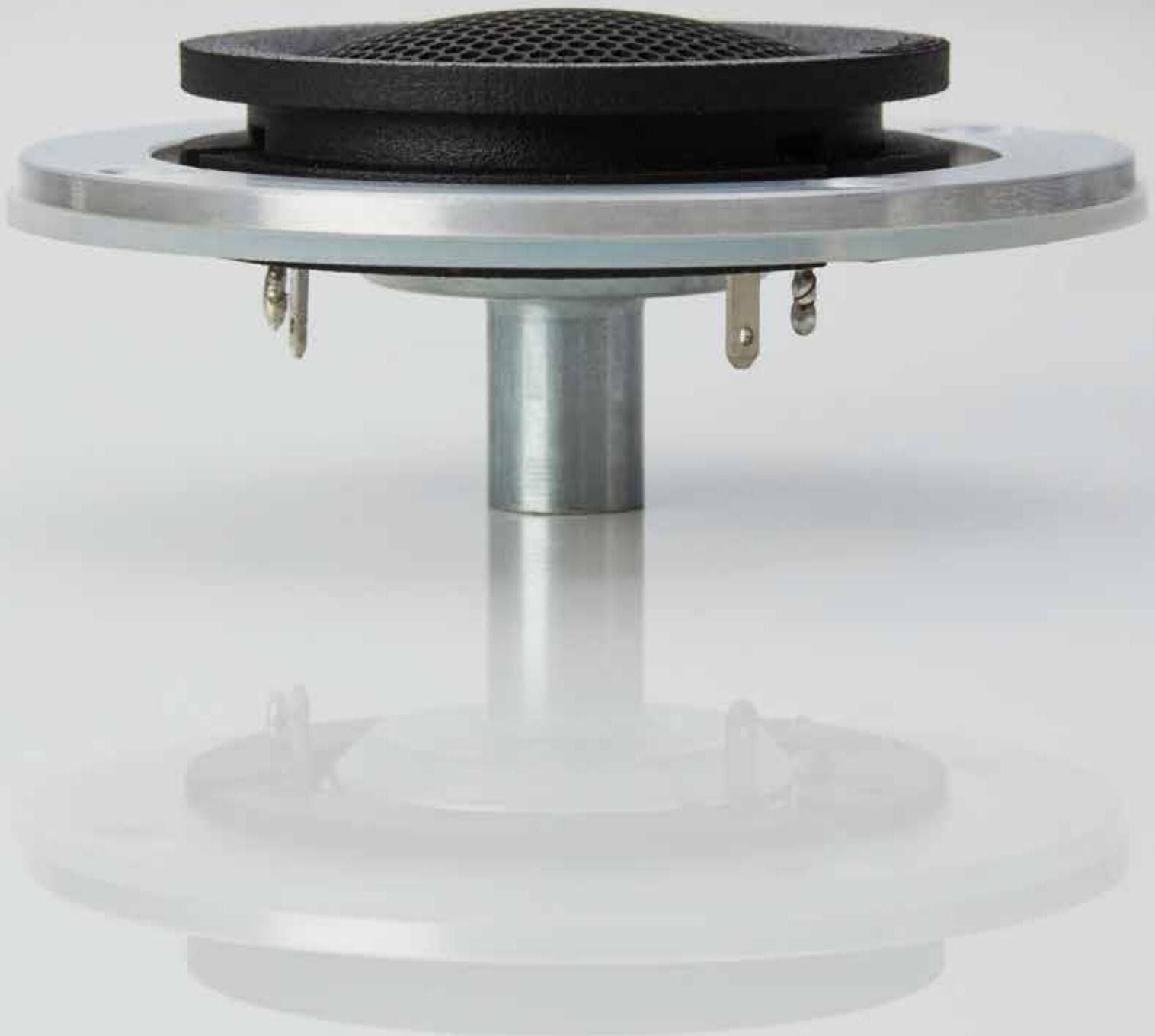


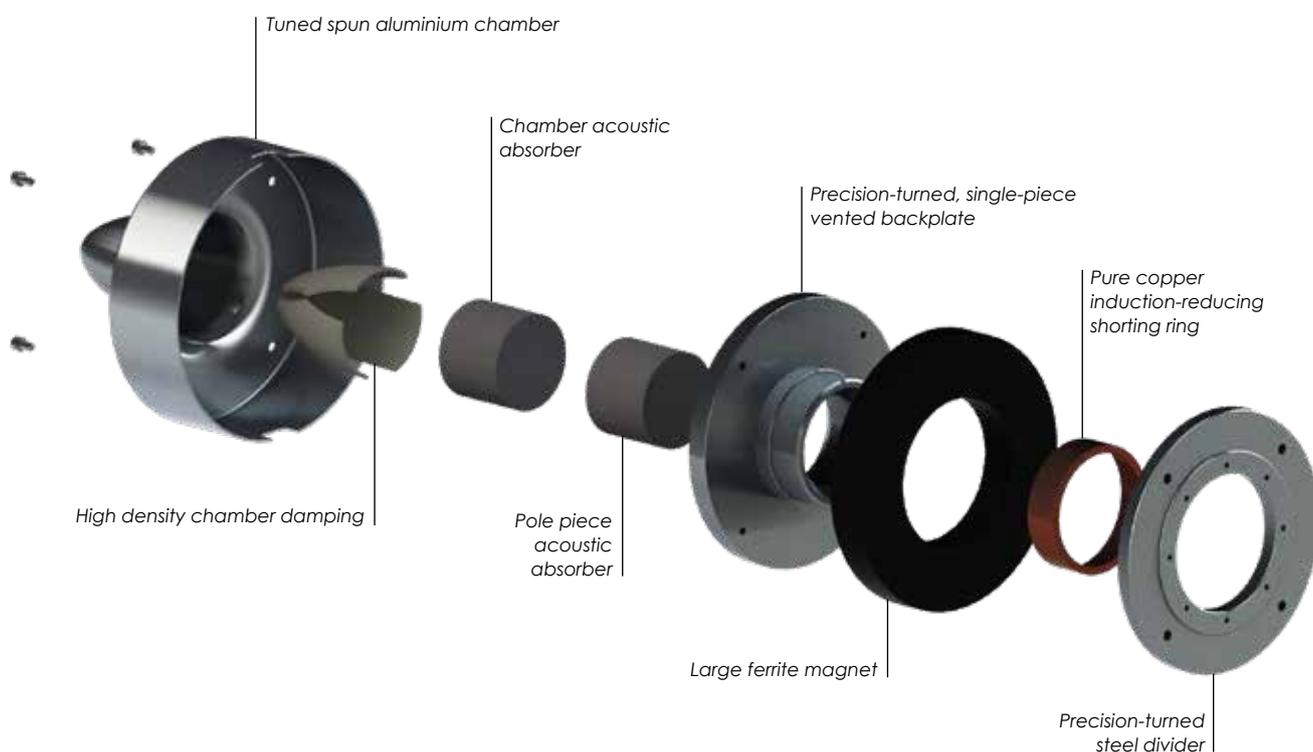
High-frequency driver complete



VOCALS
YOU CAN
TOUCH

A
DETAILED
MINIATURE

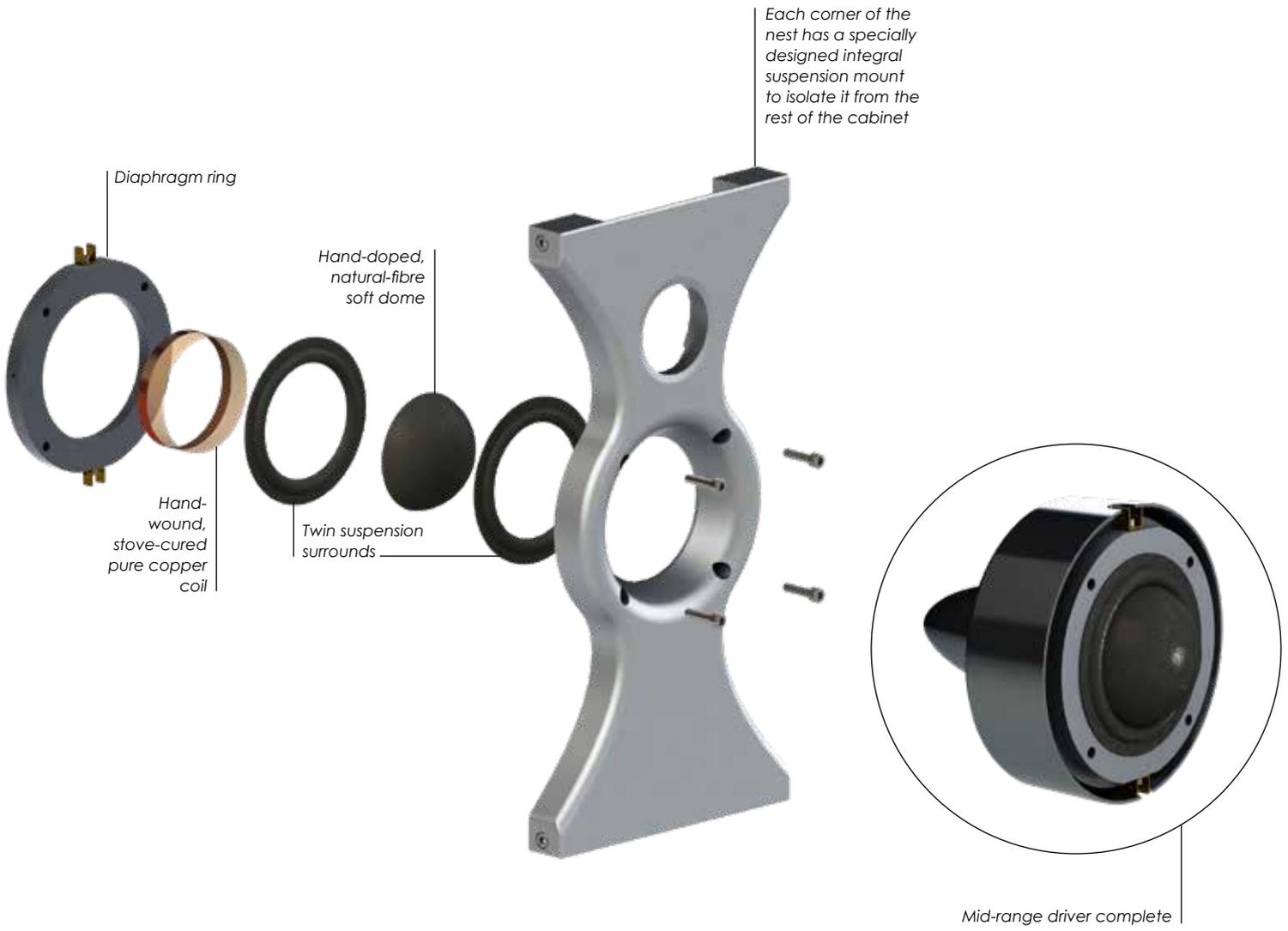


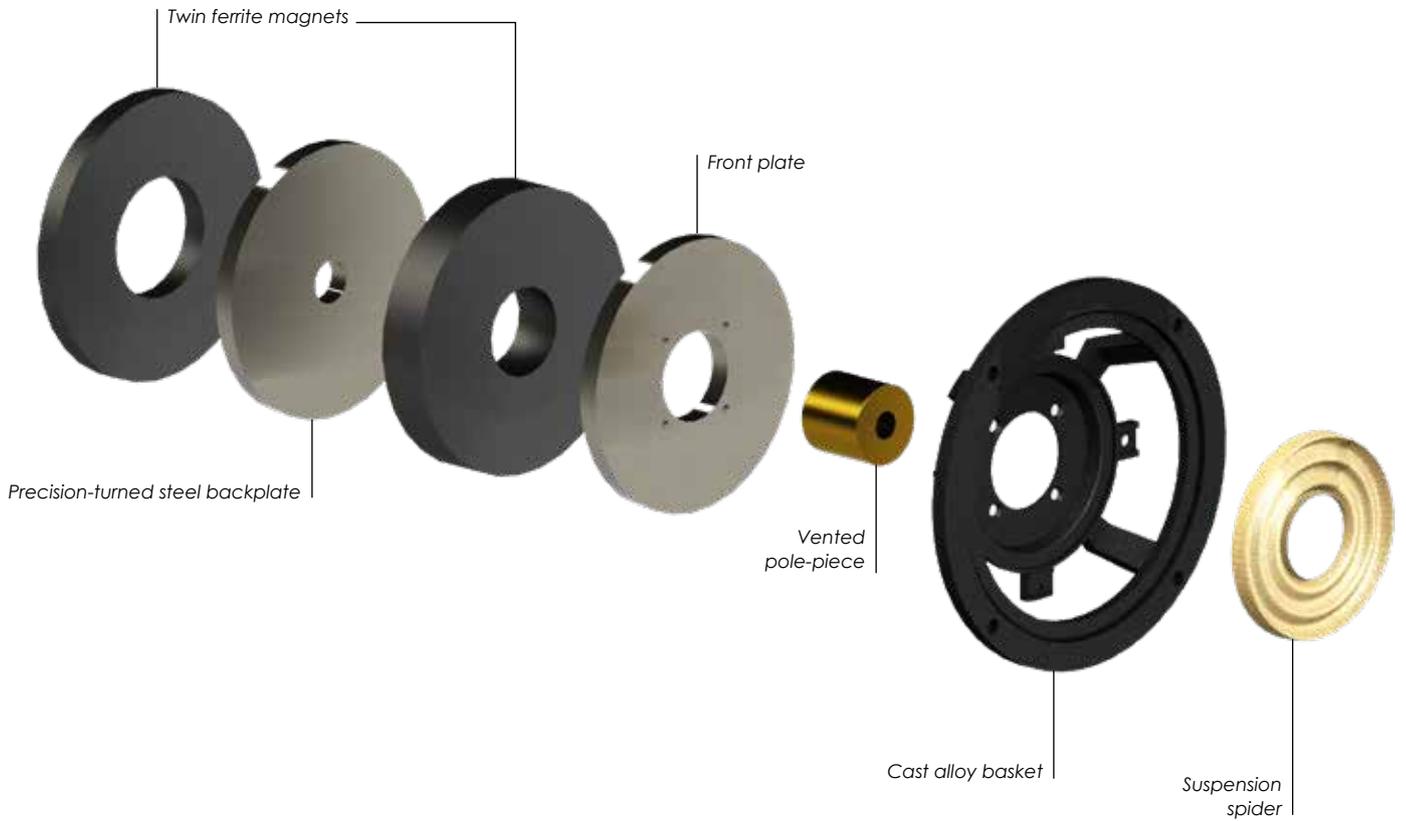


VOCALS YOU CAN TOUCH

A 75mm soft-dome design created especially for the new loudspeaker, fenestria's mid-range driver covers the key frequencies in instrumental and vocal recordings, bringing you tangible, beautifully lifelike reproduction with a wide dynamic range. Even by PMC's high and widely respected standards of mid-range driver design, this is the best yet.

The carefully shaped spun aluminium form was also engineered to be acoustically inert, producing no unwanted reflections when teamed with the tweeter in the nest. The result is stable, pin-sharp imaging that seems not to emanate from fenestria at all, but to soar boundlessly through space.





SWEET AND LOW

Like all PMC loudspeakers, fenestria produces a remarkable bass response that remains consistent at all volumes, with matchless clarity. This is in part due to the inclusion of the company's patented **ATL™** bass-loading technology, but also results from the custom-designed piston bass drivers. Designed in a flat disc shape, with a massive magnet assembly, the drivers move huge volumes of air with maximum efficiency.

Two-layer
pure copper
voice coil



Aluminium
former



Triple-layer
transverse-weave
carbon-fibre
piston face



High-compliance
long-throw surround



Low-frequency driver complete







A FLATTER RESPONSE

Such are the extreme demands of the transmission line, a standard bass driver cone would crumple and fail. Instead, fenestria's piston driver is composed of a triple-layer composite consisting of a rigid multicellular damping core sandwiched between twin sheets of transverse-weave carbon-fibre. Hand-prepared by a supplier of advanced composites to the world's leading motorsport manufacturers, the material does not deform, producing a flatter, accurate response — so you hear music, not the loudspeaker.

DEEPER, CLEARER, CLEANER BASS



The source of PMC's legendary natural, realistic sound is the Advanced Transmission Line (**ATL™**) bass-loading technology, professionally proven all around the world.

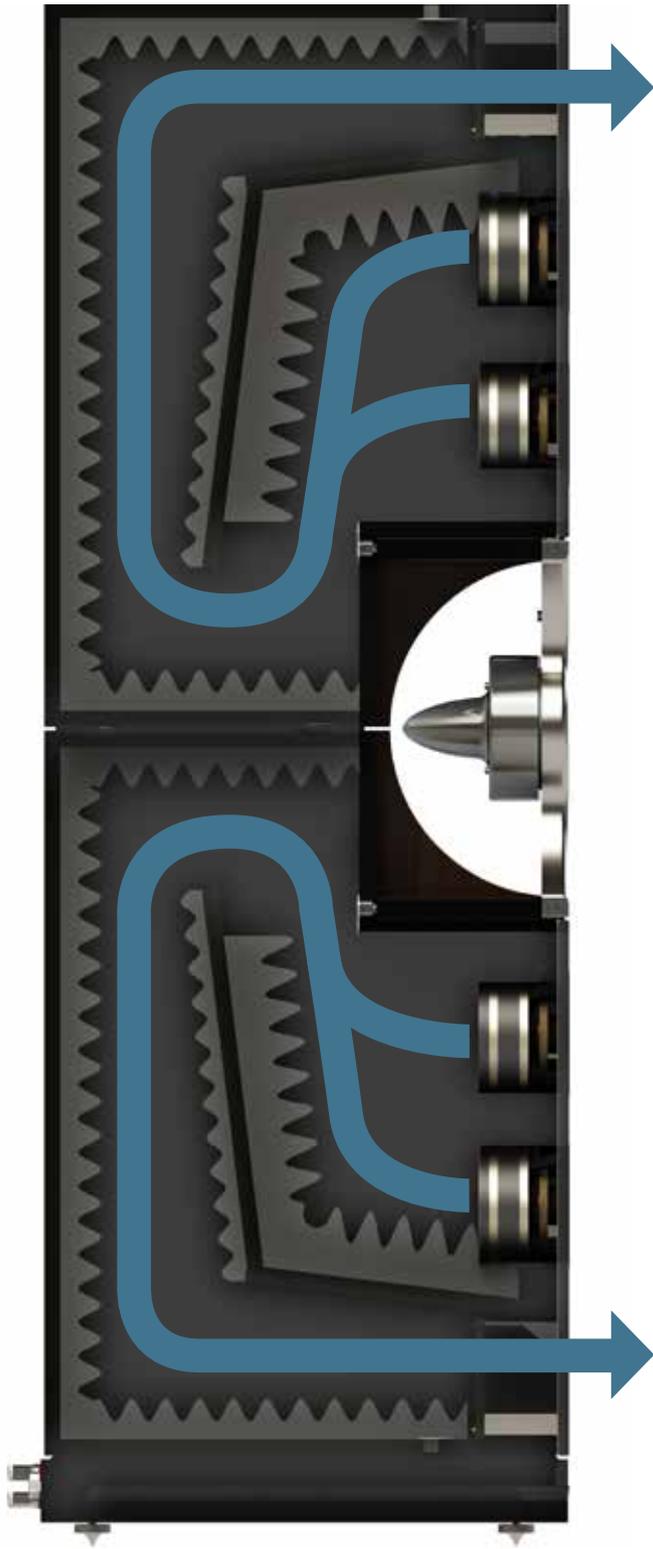
ATL™ uses energy generated by the bass unit in a much more intelligent, efficient way than speaker designs based on ported or sealed boxes. In **ATL™** loudspeakers, the highly braced cabinet is lined with a multitude of custom-designed acoustic materials that absorb all but the very lowest frequencies. These exit from a front-panel vent, extending the low-frequency response, and creating the impression of a far larger speaker with an extra, ultra-high quality bass unit.

ATL™ improves more than just the bass response: because the low end is clean and clear, it doesn't mask the rest of the music. Vocals, in particular, are beautifully projected and ultra-vivid.

ATL™ loudspeakers offer another benefit. The **ATL™** bass extension does not change with volume level — so even when listening quietly, the bass sounds balanced and well defined.

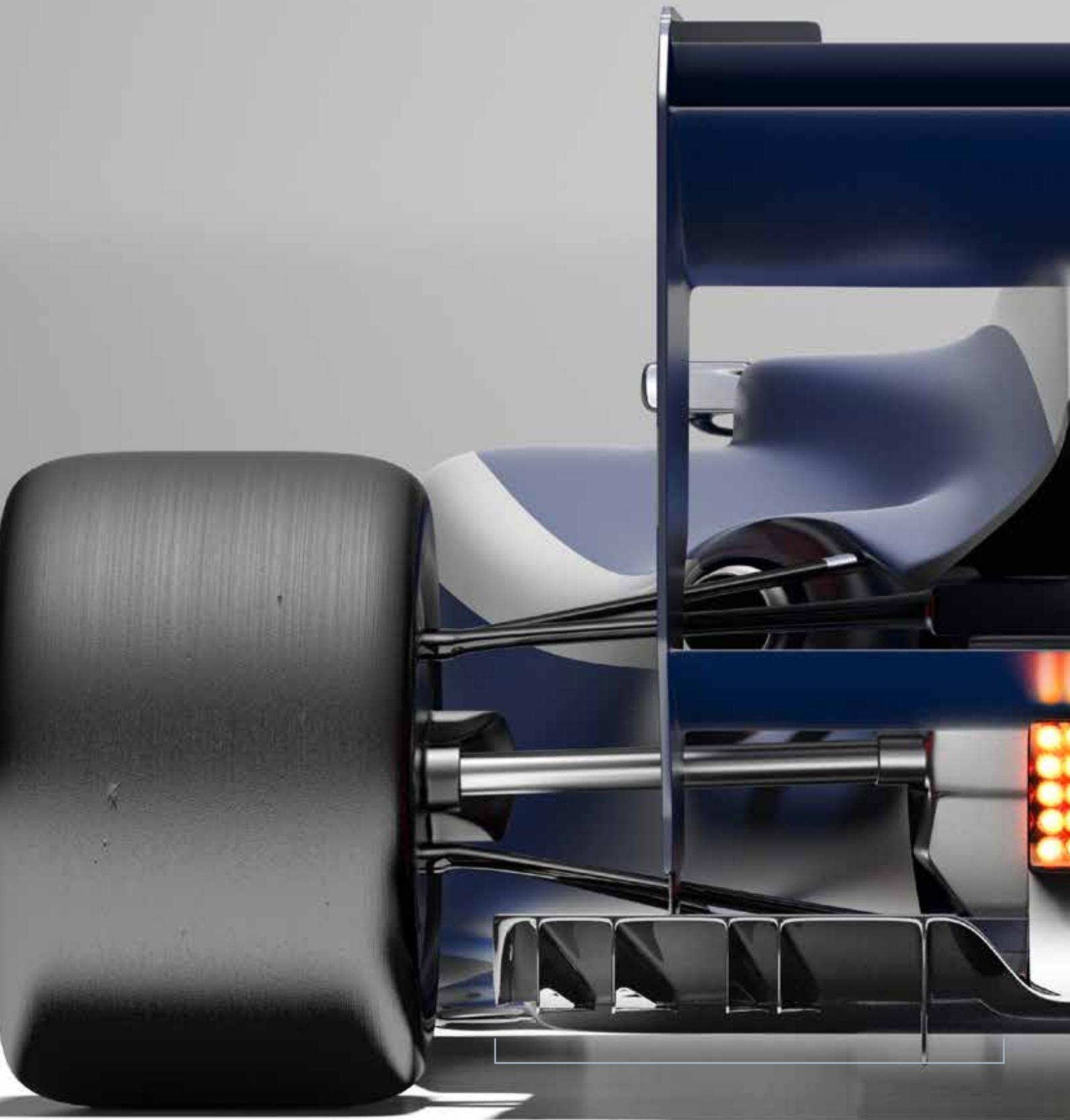
The Unique Benefits:

- *More detailed, more natural*
- *Full, rich sound at any volume level*
- *Deeper bass from a smaller cabinet*



ATL™ output
with **Laminair™**
aerodynamic
vent

ATL™ output
with **Laminair™**
aerodynamic
vent



Aerodynamically honed duct for efficient airflow



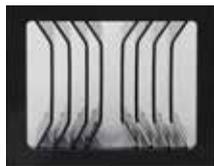
PMC's **Laminair™** aerodynamic vent takes audio performance to the next level, by applying to **ATL™** aerodynamic principles from high-performance engineering used from F1 to Le Mans and creating an even smoother, laminar air flow at the exit from the transmission line.

ATL™ designs involve air moving at high speeds and under pressure. Reducing turbulence and drag at the **ATL™** vent reduces resistance, increases efficiency, eliminates air noise and provides bass with supreme timing and the widest possible dynamic range.

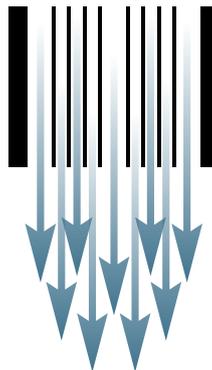
The combination of **ATL™** and **Laminair™** takes audio quality to unparalleled new heights:

- *Faster, cleaner bass and higher definition sound throughout*
- *Turbulence is eliminated, increasing the efficiency of the **ATL™***
- *Removes air noise — only the music remains*
- *Higher maximum output and bass with supreme timing and dynamics*

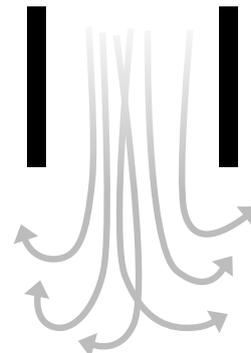
Laminair™ vent

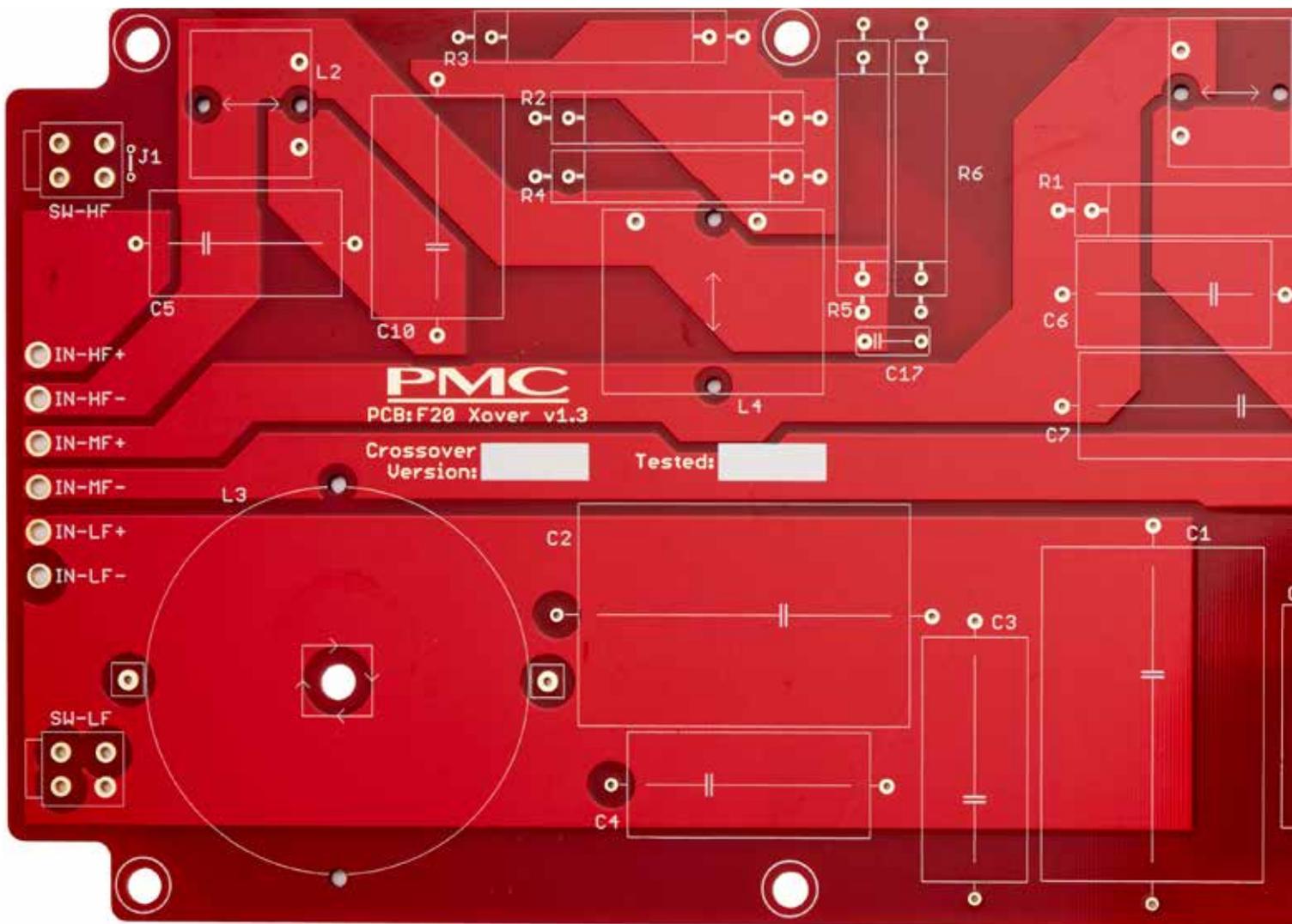


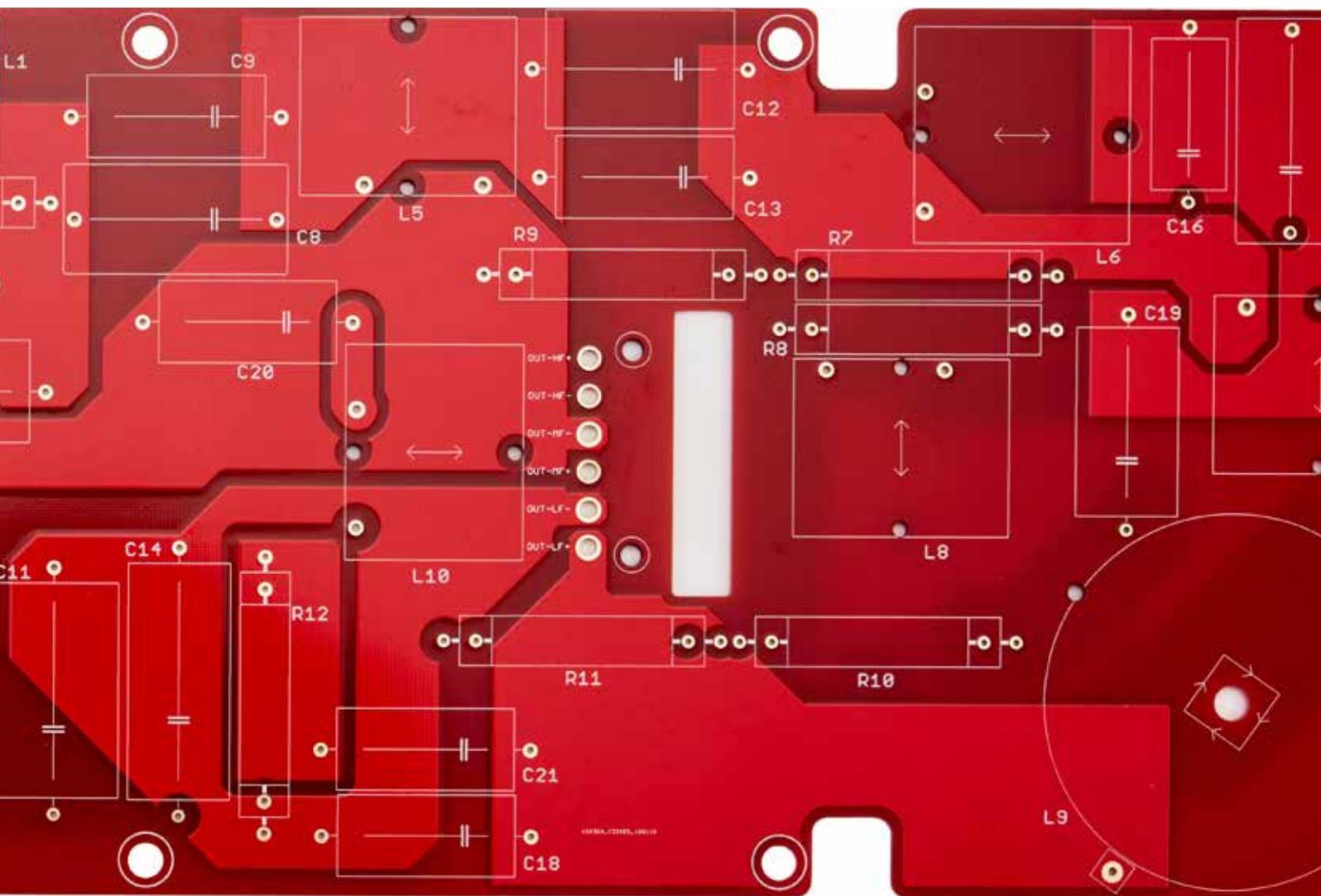
Streamlined, efficient airflow with **Laminair™**



Turbulent airflow at the **ATL™** vent without **Laminair™**







WHAT'S INSIDE COUNTS

We listen to and test all parts — even the ones you can't see. The audio connectors between fenestria's modules are designed for the best-possible conductivity, and we use non-inductive resistors throughout to reduce distortion, together with transparent, low-resistance capacitors for a lower noise floor.

Our approach is exemplified by fenestria's crossover. The purpose of this essential element is to divide the incoming signal from an amplifier into the frequencies best suited to each of the loudspeaker's drive units. It's a key constituent of a speaker design that demands the utmost precision if the product's performance is to reach its optimum. With fenestria, signal paths are kept as short as possible by strategically positioning the crossover components. They are spaced, carefully orientated to exclude interference, and connected by ultra-wide, thick copper tracks for unrestricted current flow.



CONNECTING WITH THE MUSIC

The high standards employed throughout the fenestria design extend to the audiophile-quality tuning controls set in its base. With ranges chosen from extensive analysis of multiple real-world listening environments, these precision knurled controls allow you to tailor the bass and treble response to your specific listening environment, cables, and preferred listening position. High-quality, low-resistance connectors are employed throughout, guaranteeing maximum transparency.

PMC's custom-designed low-resistance Hex-Rhodium binding posts also create ideal connections. Machined and plated with matte rhodium for the last word in conductivity, they accept all popular terminations and are directly coupled to the crossover board to keep the signal path as short as possible, so nothing is lost between cable and crossover.









CRAFTED WITH CARE IN THE UK

Our loudspeakers are designed and hand-built with care and attention by fastidious people at the PMC facility in the UK, where every single component is measured and graded. Every detail, from the individual elements on the crossover and in the drive units right up to the cabinet, is tested to ensure it meets our exacting standards for performance and reliability. This ensures each new model is a duplicate of the reference design.

A full computer analysis is taken for each completed loudspeaker, so we know it is technically perfect — but we go one step further. Computers don't tell the full story, and our customers listen with their ears — so we do too. We run a benchmark BBC speech test and play an extensive array of music (including classical, pop and rock) on each loudspeaker we produce. Every one is compared with its reference model and both speakers in each pair are cross-checked to ensure a perfect match. Such is the confidence in our work that we offer an unparalleled 20-year warranty on all passive consumer loudspeakers.





“Computers don’t tell the full story. As well as a full frequency analysis, we listen to each speaker we make — and run a benchmark BBC speech and musical test on every single one”

SPECIFICATION

Type:	3-way passive, twin cabinet, plus MF/HF nest module
Crossover frequency:	380Hz & 3.8kHz
Dimensions including plinth:	H 1700mm (66.9") x W 370mm (14.6") x D 623mm (24.5") including binding posts
Drive units:	LF 6.5" transverse-weave, carbon-fibre, multicellular-core piston driver MF 75mm rear-chambered, soft-dome driver isolated in nest mount HF 19.5mm, SONOMEX™ soft-dome, ferro-fluid-cooled driver with 36mm wide surround, neodymium magnet, micro custom chassis, silicone Aureole™ isolation mount
Effective ATL™ length:	2 x 2.4m (7.9ft)
Frequency response:	23Hz - 25kHz
Impedance:	4 Ohms
Input connectors:	Hex-Rhodium 4mm binding posts (3 pairs) accepting 4mm plugs, spades & bare wire
Sensitivity:	86dB @ 1W, 1m
Weight:	80kg (176 lbs) each, including plinth
Recommended amplifier power:	200W - 1kW

Finishes:



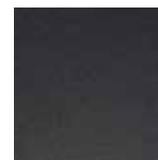
White silk



Rich walnut



Tiger ebony



Metallic graphite

NOTHING
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factfenestria

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