

Best bass ever.

SPACEHORN<sup>®</sup>

# Spacehorn.

THE LEGENDARY BASSHORN RE-BOOTED.

Bass horns are the pinnacle of loudspeaker design. No other sub-woofer system is remotely comparable.

For the music connoisseur no other solution comes close and every audiophile dreams of experiencing a big, horn-loaded bass system at least once in their life.

For loudspeaker designers, the development of a bass horn is the greatest possible technological challenge. As Harry F. Olson, the audio pioneer par excellence, warned: "The design of a horn loudspeaker is usually a long and tedious task".

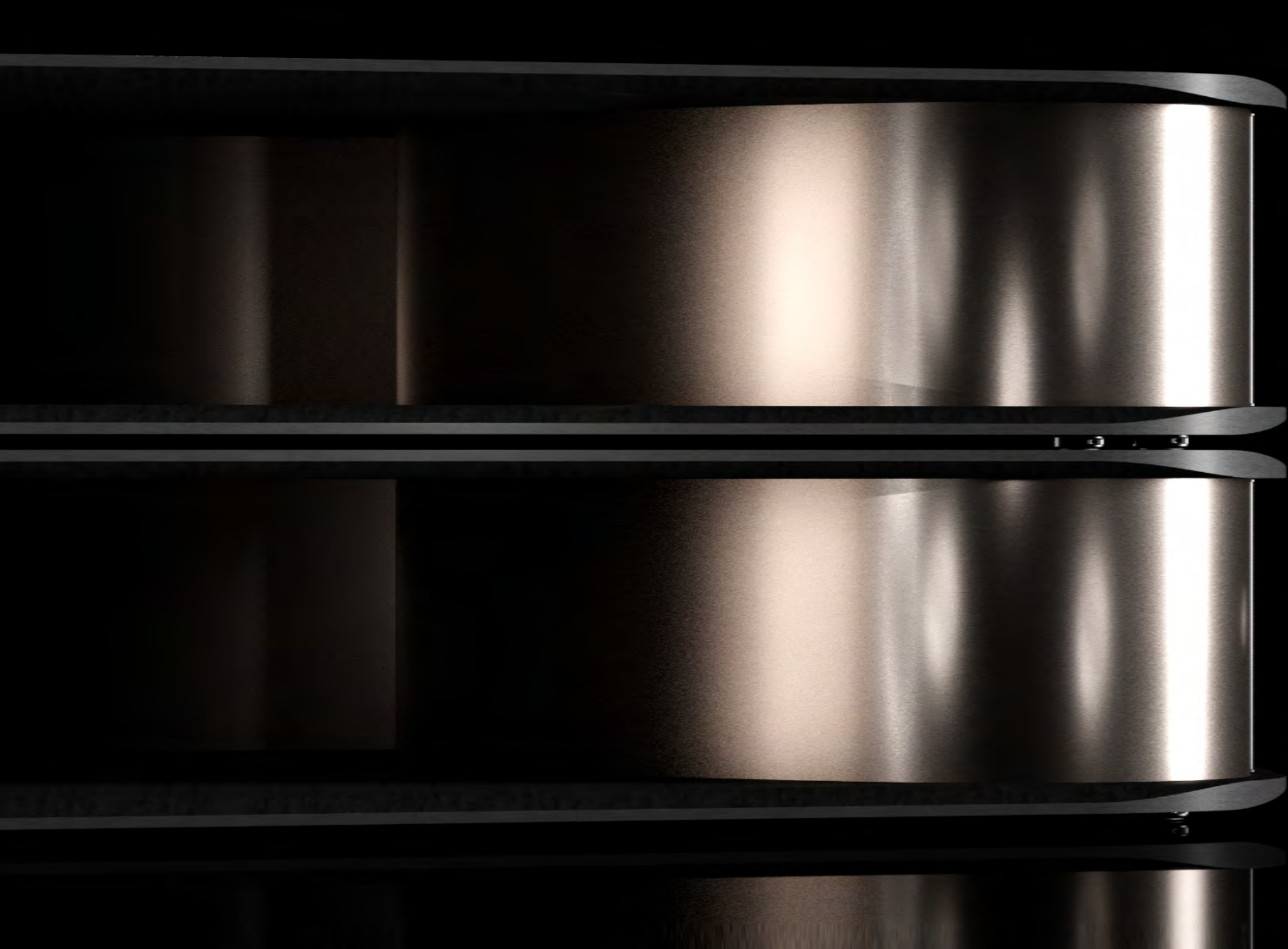
When we launched our original Avantgarde BassHorn more than 20-years ago, we created a legend – an overnight sensation: a horn-loaded bass system that, with its radical design, eclipsed everything that had been available until then. A bass unit that finally matched the TRIO System's iconic status, catapulting it beyond state-of-the-art.

Since 2001, we have had the pleasure of installing BassHorn systems all over the world. We have been able to analyse the frequency response measurements, we have received feedback from our customers and we have learned. And so, over time, we have accumulated a unique store of experience and know-how.

Time then – in our opinion – to take the next step and further perfect the concept. As the second generation, the SpaceHorn<sup>AA</sup> embodies all the knowledge and experience gathered through developing and working with the BassHorn system for over 20-years.

Technology inspired by the past but still ahead of its time.





## Designed for Homes.

YOUR HOME TRANSFORMED – INTO A GIGANTIC HORN.

The change from BassHorn to SpaceHorn<sup>AA</sup> is about more than just the name. The natural laws that govern the way in which horns work also govern the way the sound they generate interacts with the room in which you place them. Through careful re-design, we have made the floor, rear and side walls of that room an extension of the SpaceHorn itself, a step that delivers not just deeper, but also better low frequency performance.

With the SpaceHorn<sup>AA</sup>, we have repositioned the drivers and optimised the horn's flare to deliver more gradual and linear expansion at the mouth. We have increased the length of the horn by around 40% - to an impressive 1,898mm – without significantly increasing its external dimensions. The

result is deeper, more powerful bass that couples far more tightly to the air in the room. Efficiency in the critical 40 – 150Hz range has been increased by 5dB – equating to a six-fold increase in sound pressure level. All of which sounds impressive on paper, but what does it actually mean to you, the listener?

It means that your XB12 bass units have to move far less to achieve the same listening level. That means more control, clarity and quality at low-frequencies – and that means music that sounds significantly more like life!

Our goal has always been to perfect the reality of perfect bass reproduction. We have never before been closer to that goal.



## XB12 – Voice Coil 153mm.

RADICAL HORN – RADICAL DRIVER.

We have developed a completely new driver for the SpaceHorn<sup>AA</sup> – what is probably the most powerful driver that has ever been developed for a large, horn-loaded bass system.

Compared to the driver in the BassHorn, we have increased the voice coil from 100mm to 153mm. This gigantic 6-inch diameter motor structure achieves astonishing levels for force factor and power handling, while at the same time significantly reducing thermal compression.

The magnetic structure is built around two high-grade magnets that have to be created in Europe's largest 200,000 volt facility. The resulting 1.15 Tesla magnetic flux density acts on a voice coil that is 480mm long – more than 50% longer than the previous model.

We use low-carbon steel for pole plates that were specially developed for the XB12. To ensure high linearity even at maximum excursion, the suspension spider has a patented dynamic profile with progressive behavior of its surround. The

surround itself is made of low-loss NBR (acrylonitrile butadiene rubber) to achieve a fast and clean transient response.

The diaphragm comprises a composite of long-fibre paper and carbon fibre – extremely stable and torsionally stiff for a precise piston movement.

The XB12's new SingleFrame chassis has robust die-cast aluminium outriggers that also enclose the magnet, to ensure the total mechanical stability of the motor structure's moving parts.

Implementing our AirGate<sup>AA</sup> acoustic filter technology between the driver and the mouth of the horn has achieved an additional 6dB reduction in distortion, compared to its predecessor.

The XB12 is the absolute reference in terms of bass driver technology and performance. It underlines the unique, uncompromising nature of the G3 series. It underpins their unique, uncompromising musical performance too!





## Bass amplifier and digital processor.

KEEPING EVERYTHING FIRMLY UNDER CONTROL.

The SpaceHorn<sup>AA</sup> is equipped with an integrated bass amplifier. The internal, active module combines a digital crossover and powerful output stages.

Each bass driver is controlled by a separate power amplifier, with sufficient headroom to handle even complex EQ settings.

A 12-volt switching voltage input allows the subwoofer to be powered on remotely.

The XD-1000 amplifier is equipped with an advanced digital sound processor. With a precision and bit accuracy that cannot be achieved with analogue technology, the digital crossover eliminates all passive filter elements in the signal path. Subwoofer volume, the high- and low-pass filters and the equaliser can all be adjusted with unprecedented precision.

The user interface has been completely revised and now allows simple, intuitive adjustments by the customer. All parameters can be easily adapted to the room's acoustics or the listener's preferences and programme material.

The entire electronic unit is protected by a state-of-the-art E-Fuse circuit. This is not only much faster and thus safer than conventional fuses, but also superior in terms of sound.

The complete cabling for mains and signal is integrated in a hidden cable shaft. The cables are thus fed invisibly to the rear of the SpaceHorn<sup>AA</sup> and do not interfere with the harmonious lines.

## Single & twin drive.

TWO OPTIONS – MULTIPLE CHOICES.

The SpaceHorn<sup>AA</sup> is available in two, different sized versions.

The Single-Drive version uses a single XB12 bass driver. The cabinet has the same dimensions in width and depth as the Twin-Drive version, but with a reduced height of 492mm.

Due to its flatter design, the Single-Drive version is particularly suitable for upright installation on the rear or side-wall (see installation options on the next page).

In the Twin-Drive version the SpaceHorn<sup>AA</sup> is equipped with two XB12 bass drivers and is driven

by dual-mono XD-1000 amplifiers, delivering 2 x 500 Watt. The height of this version is 748mm making it more suitable for horizontal placement or the stacking of modules in larger installations (see placement options on the next page).

Both versions are completely compatible with each other and can be used in combination, in a single system. That makes it possible to start out with two Single-Drive SpaceHorn<sup>AA</sup> modules in an upright position, expanding the system at a later stage with two or more Twin-Drive modules in a central arrangement.



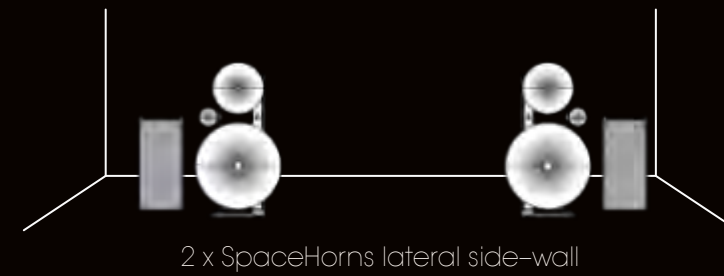
492 mm



748 mm







## Room placement.

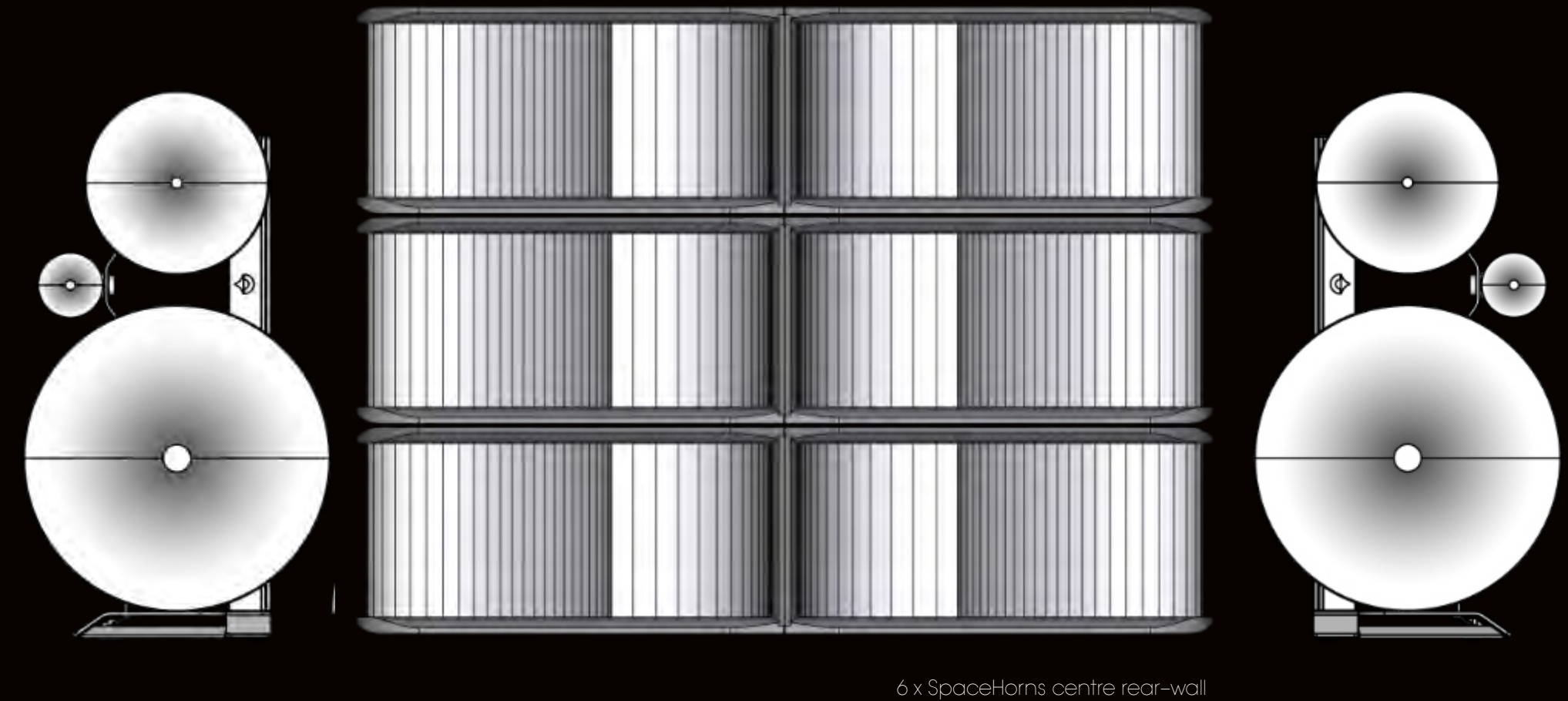
ALMOST ANYTHING IS POSSIBLE.

The extraordinary performance of the SpaceHorn<sup>AA</sup> modules results in a necessarily large footprint. Simple practical considerations mean that installation is normally dictated by the available space.

For a system with two Single-Drive SpaceHorn<sup>AA</sup>, we recommend upright installation on the rear or side-wall. This presents a narrow frontal aspect to combines optimum performance and minimum visual impact. Each SpaceHorn<sup>AA</sup> can be placed up to 50cm from the corner of the room.

The Twin-Drive SpaceHorn<sup>AA</sup> frontal dimension is almost twice as tall/wide as the Single-Drive version, making it equally suitable for operation in a vertical or horizontal placement. You can even place them side-by-side or stacked one above the other.

The diagrams illustrate typical set-up situations. You are also welcome to ask our engineers for specific advice regarding your particular situation. We look forward to your call.





## Individuality.

A WORLD OF ALMOST LIMITLESS POSSIBILITIES.

Every colour and every surface finish on the TRIO G3 has been carefully selected by us. Our aim is to achieve a timeless, elegant and at the same time expressive look, one that both showcases the horns and at the same time integrates harmoniously into their surroundings.

Our origins were the focus of our selection. We are very close to nature and our homeland, at the same time

always open to new things, new ideas and new cultures. Where do we come from and what is our home?

Our origin is the Odenwald. Our home, strictly speaking, is planet Earth, in solar system XY.

We are all neighbours.



# Your colour is unique.

TODAY JAGUAR GREEN, TOMORROW LAMBORGHINI ORANGE, THE DAY AFTER TOMORROW ...

We are happy to fulfil individual colour requirements on request. All we need is a specific colour code or a colour sample. We could paint your speakers in a red to match your Ferrari, the orange of your Lamborghini, the steel grey of your Harley, the red of your wife's Chanel nail varnish or the colour of your husband's suit.

And you don't even have to send us your original sports car, your original wife or your original husband...

We can even change the horn colours individually at any time, creating a new look again and again, to match the interior, your new convertible or simply because you fancy a change ...

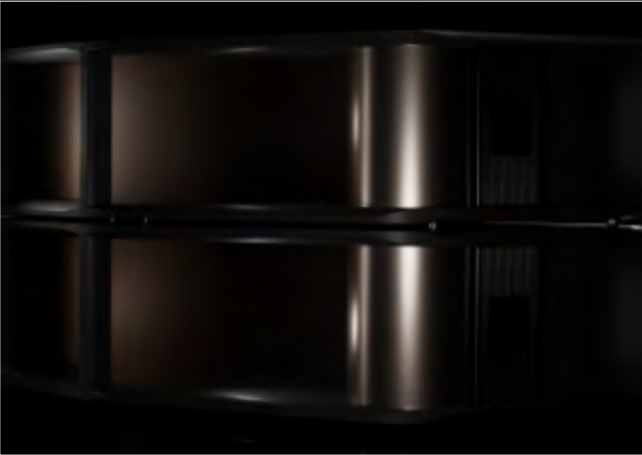




# Optionen SpaceHorn.

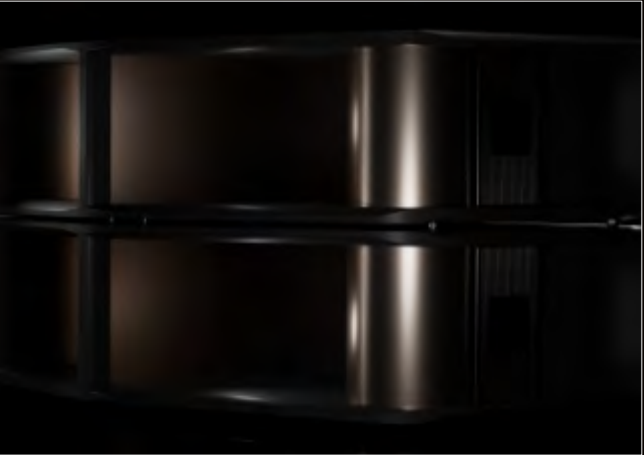
## HORNFLARE

Brushed Stainless Steel Finish.



## BODEN- UND DECKELPLATTE

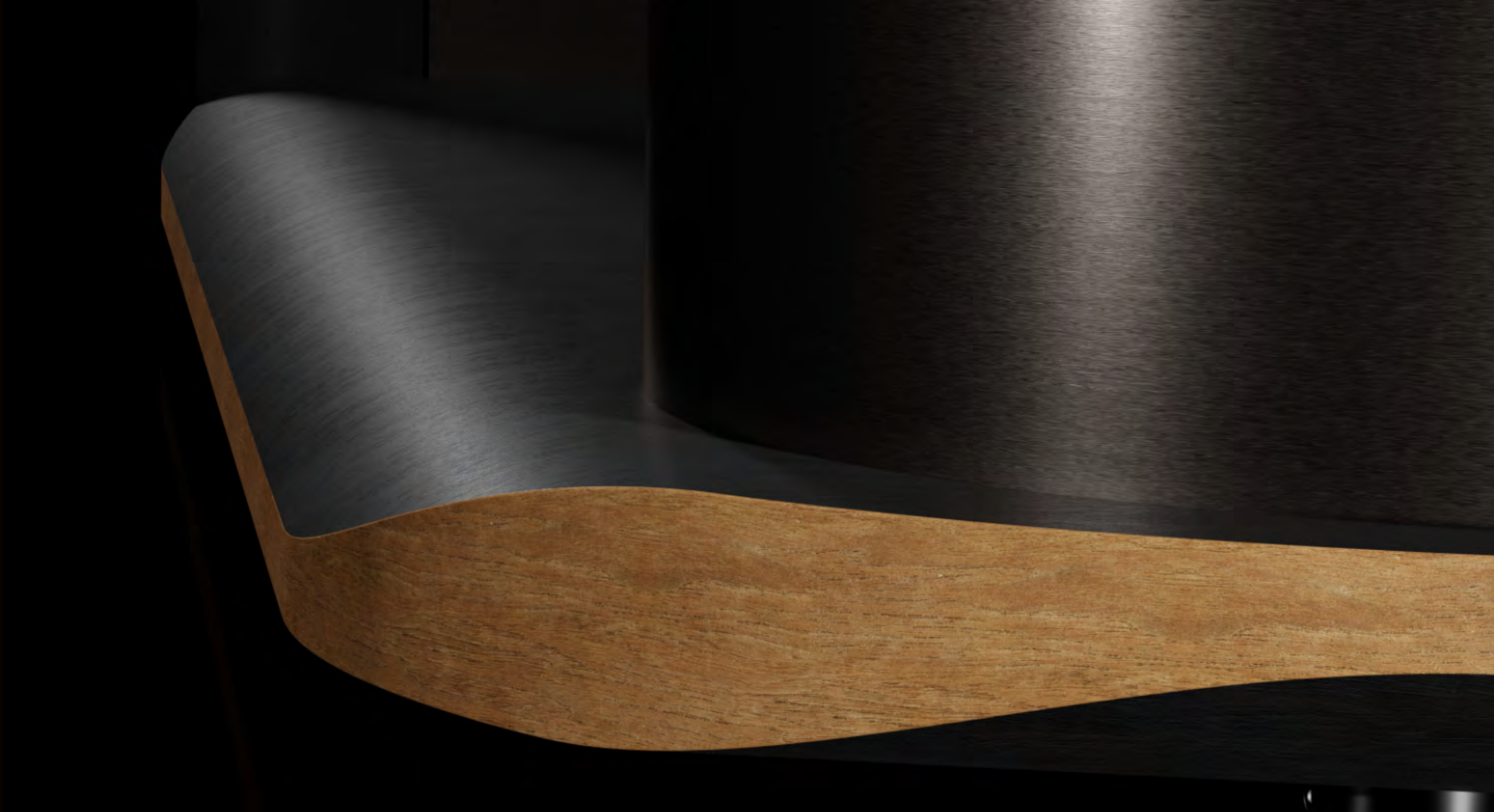
Wenge black.



Brushed Gold-Copper Finish.



Wenge black & wooden veneer.



Technical data.



SPACEHORN

SYSTEM DATA		
Frequency range		20 – 200 Hz
Crossover frequencies active crossover		40 – 400 Hz
Recommended room size		25 qm

HORN		
Horn type		Expo-spherical horn
Horn aperture angle		180 degrees
Horn length		1.898 mm
Horn mouth size	Single-Drive	0,850 qm
	Twin-Drive	0,650 qm

DRIVER		
Driver Type		XB12
Driver Size		300 mm / 12 Zoll
Number of drivers	Single-Drive	1 x XB12
	Twin-Drive	2 x XB12
Voice coil diameter		153 mm
Flux density		1,15 Tesla / 480 mm
Pole plate		low carbon steel
Diaphragm Material		Paper/carbon fibre compound
AirGate <sup>AA</sup>		yes

DIMENSIONS/WEIGHT		
Width		1.018 mm
Depth		1.165 mm
Height	Single-Drive	492 mm
	Twin-Drive	748 mm
Weight	Single-Drive	tba.
	Twin-Drive	tba.

SUBWOOFER AMPLIFIER		
Output power (RMS)	Single-Drive	1 x 500 Watt
	Twin-Drive	2 x 500 Watt
Digital Crossover		DSP
Parametric equaliser		10 Band equalizer
Digital Room Adjustment		yes
Inputs		1 x SPKR Input
		1 x XLR Line Input