

Sonus faber Il Cremonese

'Il Cremonese' is not only shaped like a diamond but its sound surely sparkles like the audiophile's best friend
 Review: José Vitor Henriques Lab: Keith Howard

The latest addition to the Italian company's Homage series, the Il Cremonese is a newly shaped rhomboidal diamond floorstander that will cost you less than a third of the price of its massive Aida model. Like its predecessors, the speaker is a beautiful piece of functional art with the sumptuous looks Sonus faber is now famous for.

The cabinet is made of triple-layer walls of variable thickness and finished in lacquered walnut wood. I have had the pleasure to live with both the red-stained and natural walnut versions and I would be hard pressed to choose between them, although the latter more closely resembles the colour of the violin the speaker pays homage to.

AN ELEGANT POSTURE

The front baffle and spinal column, with its triple midrange exhaust pipes, are covered with plush black leather, and both plinth and tempered glass top plate frame are made of brushed aluminium. The five-sided tower (or rhomboid) is said to optimise structural solidity, which is further reinforced internally with ribs and metal plates on top and bottom.

The Il Cremonese stands close to 1.5m tall, each speaker weighing a considerable 84kg. All five sides are flat with chamfered edges, which is a departure from the gracefully curvaceous lyre-inspired walls of both the Aida and Lillium, from which this speaker is derived [see *HFN* Apr '12 and Jun '15]. However, the characteristic sloped top, elegant posture and smooth, lustrous finish enhance the family resemblance.

The Il Cremonese is a 3.5 way vented enclosure sporting six active drivers, its front baffle featuring a flush-mounted array of in-house made drive units with gun-metal baskets. At the top sits one 'Arrow Point' Damped Apex Dome tweeter (a synthesis of the classic dome and ring transducer) that has a new neodymium

motor system allied to a natural wood acoustic labyrinth rear chamber. Below this is housed a single 180mm midrange driver, again with a neodymium magnet system, featuring a paper cone and also mounted in its own optimised 'acoustic chamber' decoupled from the main baffle board. Finally, a pair of 180mm woofers featuring a sandwich cone structure (a foam core and two external surface skins of cellulose pulp), share an acoustically amorphous 'Stealth Reflex' chamber. The woofer and infrawoofer output ports can be found underneath the loudspeaker.

In a departure from the Lillium, which sports a 'Stealth infra-woofer' and a downward-firing passive radiator, the Il Cremonese uses an extra pair of the company's new lightweight 220mm W22XTR-16 infra-woofers, which also share (you guessed it) an independently-tuned 'acoustically amorphous' chamber that's mounted on the rear side panel. Whenever I listened to the Il Cremonese the infra bass drivers were firing outwards, but you can try otherwise, depending on your room acoustics and whether the associated equipment is mounted in between the speakers or not.

The crossover network uses a progressive slope and is tuned to specific driver batches, optimising the amplitude/phase response for best space/time performance. Highest quality components are used: latest generation Mundorf Evo oil and silver/gold/oil capacitors, Jantzen inductors. Meanwhile, crossover points are 80Hz, 250Hz, 2500Hz and robust bi-wiring terminals with metal jumpers are supplied.

This much anyone can learn from reading the Sonus faber website technical

RIGHT: Sonus faber's 28mm DAD tweeter is married to a 180mm mid unit and two lightweight 180mm sandwich-coned woofers, the latter augmented by a pair of rear/side-firing 220mm infra bass drivers



THE REAL IL CREMONESE

The Il Cremonese is Sonus faber's second homage to Antonio Stradivari and named after one of his most famous violins, crafted a little over 300 years ago in 1715. Originally named 'Joachim' after its first owner, the violin was renamed 'Il Cremonese' in 1961 when it was selected as the first Stradivari to return to the city of Cremona as part of the permanent collection of the Museo del Violino. Antonio Lorenzi from I Solisti di Cremona had the honour to play it at the Museo del Violino's gala on 5th September 2013. Another virtuoso violinist, Andrea Cardinali, recorded an enlightening comparison live in 2012 (*da pari a pari* or 'as equals') between 'Il Cremonese' and the Guarneri del Gesù 1734 'Stauffer' playing Paganini Caprices. More recently 'Il Cremonese' was entrusted to the young violinist Edoardo Zosi, former pupil of Salvatore Accardo at the Walter Stauffer Academy, for a Baroque and Romantic repertoire, with piano accompaniment by Stefania Redaelli.

descriptions. However, there's a lot of science involved and Paolo Tezzon – head of R&D at Sonus Faber – was keen to reveal some of the secrets.

A MATTER OF SOUL

The Stealth Reflex System, which starts as a basic reflex port filled with felt to control turbulence and the 'chuffing' noise that can result, also manages the speed of the air flow inside the duct. This allows for the speaker cabinet to be smaller while providing greater extension of the LF response.

With this 'staggered low frequency emission technology,' says Tezzon, 'both the side subwoofers and the front-firing woofers are running in parallel for the lowest frequencies – that's why it is considered a 3.5-way. But while the side subwoofers are filtered off at around 100Hz, the front-firing bass units reach a natural mechanical slope and crossover with the midrange, without the use of any high pass filter.

'Our ZVT [zero vibration transmission] system isolates the speaker's cabinet from the floor, and the rest of the listening environment, by using aluminium spikes decoupled by elastomers which turn the energy into heat instead of "grounding" it.'

'Anima Legata' is another Sonus faber resonance-tuning technology and the Il Cremonese is the first 'Homage' to do without it. Rather the speaker uses 'Dampshelves' – two massive slabs of black brushed Avional, operating as mechanical energy dampers. The Aida and Lilium use a complex system consisting of a steel rod and tuned mass dampers attached to each pole that oscillate in anti-phase to cut micro-vibrations. Ironically, to my ears

the Il Cremonese has even more 'soul' than any of its metal rod 'animated' siblings...

JUST LIKE A STRAD

My first encounter with Il Cremonese was at the Oct '15 Festival Son-Image in Paris, then later at a press showing at the WOM Townhouse in New York. Back in Portugal I have had the chance to listen at my own leisure, using a large array of high-end equipment but finally settling on an Audio Research CD9 CD player, REF10 preamp and Galileo 150 power amp [HFN May '13, Mar '13 and Jan '15] single-wired with Transparent cable as the best match.

The Il Cremonese has a delightful leading-edge brilliance, just like a real Stradivari violin, that can be 'tamed' by listening off-axis [see KH's Lab report, p33]. However, in this case you'd be also listening

off-axis to all the other drivers mounted on the front baffle and altering the position of the infra bass drivers relative to the rear and side walls.

Tonality might change, making it sound mellower and more romantic, with a richer lower range – perhaps more like a Guarneri Del Gesù violin! So I opted for placing them closer together, with just a little 'toeing-in' to better suit the 'Stradivari character'.

The Il Cremonese can paint a broad, wall-to-wall canvas while performing the proverbial vanishing act. But you should allow some breathing space at the back, as this helps to create a better 3D image, as if it were a dipole. Resolution is of a very high level, thanks to the management of 'silence' through the painstaking control of micro vibrations, and is intimately linked to micro dynamics, which boosts awareness of those minor vocal inflections that separate a good singer from a great performer. ☞

'The Il Cremonese can be as fierce or as delicate as it is elegant'

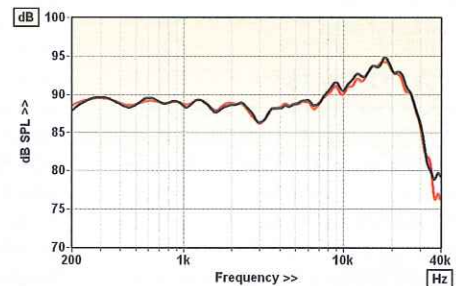


LAB REPORT

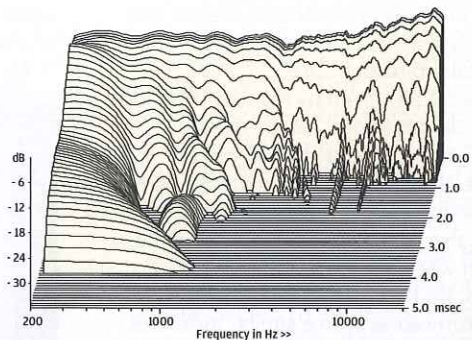
SONUS FABER IL CREMONESE

Sonus faber's claim of 92dB sensitivity accords well with the 91.7dB we recorded by simply averaging our FFT response data but this gives undue weight to higher frequencies. The standard pink noise figure was almost 2dB lower at 89.9dB, suggesting that 90dB is more realistic. Importantly, this good figure is achieved without recourse to punishingly low impedance. Sonus faber specifies a nominal impedance of 4ohm, which accords well with our measured minimum modulus of 3.1ohm. Impedance phase angles are better controlled than in many competitors, so the minimum EPDR (equivalent peak dissipation resistance) is 1.9ohm at 53Hz – some 0.2ohm higher than we typically find with modern floorstanders, although a second dip to 2.1ohm at 105Hz will make the Il Cremonese slightly less amp-friendly than this might suggest.

Measured at tweeter height, the on-axis response is essentially flat out to 7kHz, after which the output rises by 5-6dB by 19kHz [see Graph 1, below]. As a result the response errors are rather high at ± 4.3 dB and ± 4.1 dB for the pair but this can be reduced by listening a little off-axis, which should reduce the error to less than ± 3.0 dB – a good result. Pair matching over the same 300Hz-20kHz was notably good at ± 0.7 dB. Diffraction-corrected near-field measurement recorded a bass extension of 30Hz (-6dB re. 200Hz), although given the complexity of the bass arrangement (five drive units and two ports were included in the measurement) this figure will be subject to some error. Ultrasonic extension is less laudable as tweeter output begins to fall before 20kHz. The CSD waterfall [Graph 2] evinces very good control of treble resonances. KH



ABOVE: Forward response is flat through bass and mid, lifted through treble and drops steeply >20kHz



ABOVE: Any cabinet resonances and midrange/treble break-up modes are quickly damped – a fine result

LEFT: First seen in the Aida floorstander, these three ports are part of Sonus faber's 'Stealth Reflex' low frequency tuning. Metal outriggers improve stability of diamond-shaped cabinet

projection and attack, just listen to Roy Hargrove's 'Whisper Not' from the album *Approaching Standards* [Novus 63178]. Hear how Al Foster on drums keeps pace with Scott Colley's bass, and, boy, have you ever heard such perfect synchronisation and timbral differentiation between trumpet and Antonio Hart's alto sax?

WRATH AND POWER

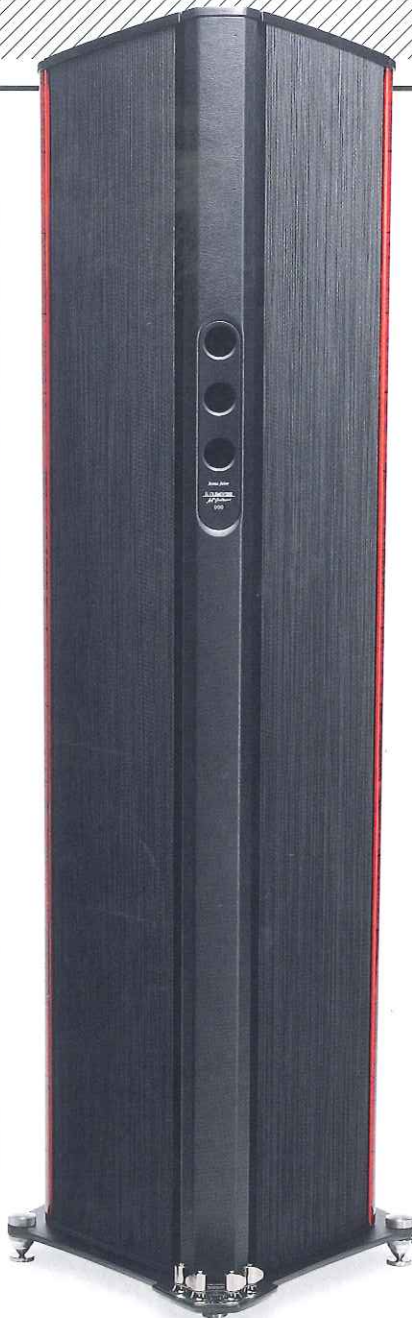
While KH's lab report shows output at the extreme ends of the spectrum falls prematurely, I didn't feel it really lacked for brilliance or weight – well, maybe just a hint of the lowest octave was missing. Moreover, just because the Il Cremonese carries a 'six-pack' do not judge it to be a brute force loudspeaker. It can be as fierce or as delicate as it is elegant. And yet it delivered the tremendous power of the 'Dies irae' from Mozart's *Requiem* [Ljubijana RSO and Ch; Stradivari Classics 084646600329], with all the might of God's wrath evoked by the chorus and fearful percussion.

'Slippin Away II' with Jeff Porcaro paving his way with tight-stretched percussion skin, underlined by bold synthesiser bass notes and other assorted fast transient percussion sounds by Joe Porcaro – a Sheffield Lab classic I hadn't played in ages [CD-23] – gave me plenty of satisfaction. The Il Cremonese has that effect. You find yourself digging out old favourites of all genres. ☺

HI-FI NEWS VERDICT

Sonus faber's the Il Cremonese is arguably the star of its Homage Collection, despite the steep price, and yes, in spite of the superb Aida and Lilium. This masterpiece has everything one could wish for in a tower loudspeaker. It offers music that blends beauty with inner power; rhythmic speed with superb imaging; purity of timbre with harmonic richness. It is the consummate all-rounder.

Sound Quality: 90%



It is also the kind of detail that tells you Isabelle Faust is playing a Stradivarius to perform her meticulous rendition of Haydn violin concertos with the Munich CO [Pan Classics PC10353]. Alas, it won't tell you that her violin is the circa 1704 'Sleeping Beauty'!

This uncanny detail resolution even tempts you to make comparisons you haven't indulged in for a long time: *Norma's* 'Casta Diva' sung by Cecilia Bartoli, with her unusual timbre; Maria Callas dramatic, intense, warmly lyrical; Angela Gheorghiu with her earthy midrange and strong top register. The Il Cremonese loved them all and treated them with equal respect. As to pace, rhythm, articulation,

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	91.7dB/89.9dB/89.0dB
Impedance modulus min/max (20Hz–20kHz)	3.1ohm @ 44Hz 15.0ohm @ 1.5kHz
Impedance phase min/max (20Hz–20kHz)	-43° @ 2.4kHz 34° @ 140Hz
Pair matching/Response Error (300Hz–20kHz)	± 0.7 dB / ± 4.3 dB/ ± 4.1 dB
LF/HF extension (-6dB ref 200Hz/10kHz)	30Hz / 30.5kHz/30.9kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.5% / 0.9% / <0.1%
Dimensions (HWD)	1450x398x622mm