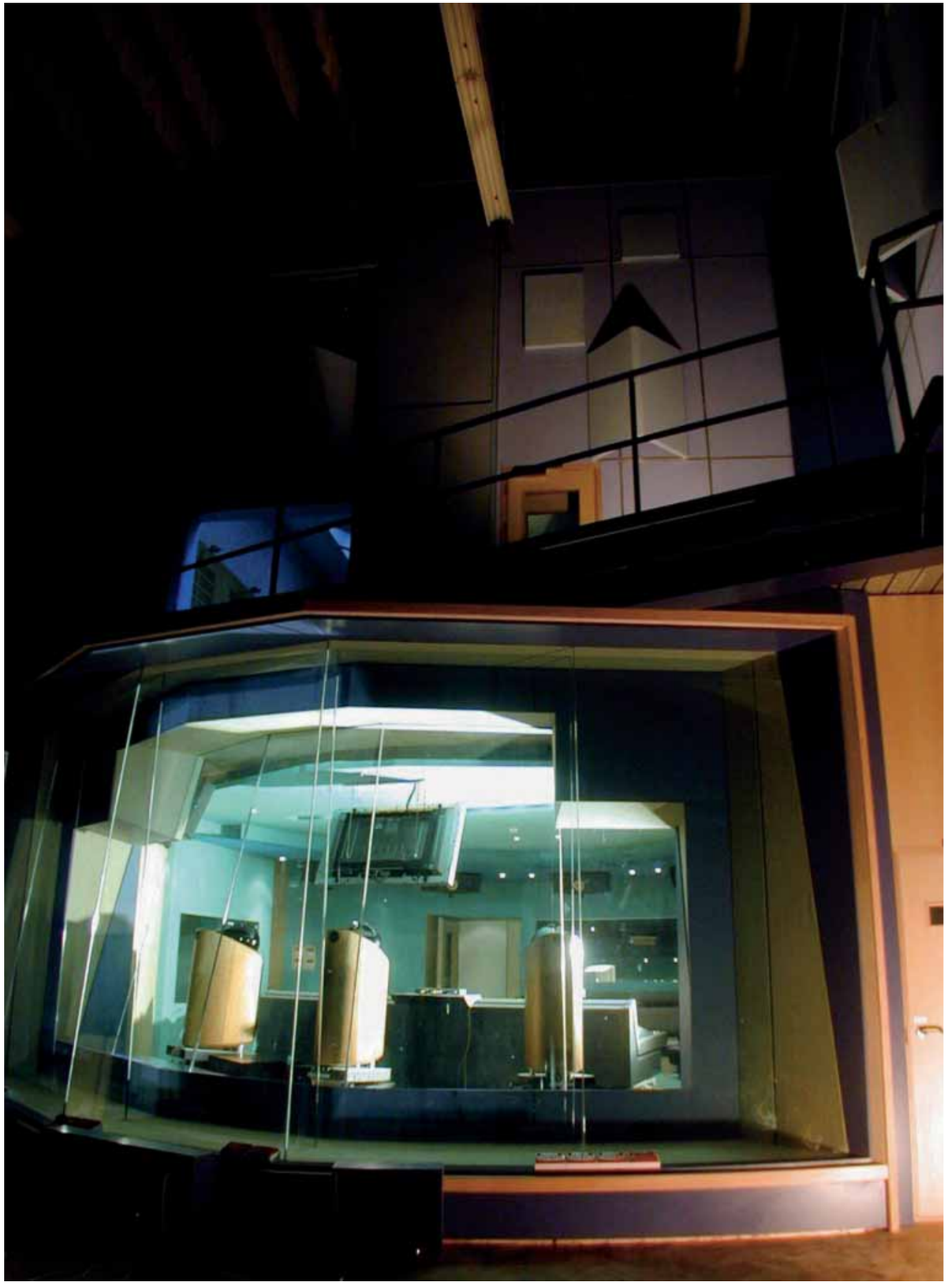
Bowers & Wilkins

CM Series

No artificial additives That's been our approach to sound quality from the very beginning. It's exactly the same with the new CM Series. By using our most refined drive unit technologies, developed for reference-standard speakers like the 800 Series, we've been able to hone the speaker down to its purest essentials. The CM Series uses crossovers of remarkable simplicity and quality, so what you hear is that much closer to the sound of the original recording. In its functional perfection and understated elegance, it's nothing less than a masterpiece. Pure and simple.

There's no room for dreams in business That's what we're told. B&W is different. Its success stems from the dream of founder John Bowers to create the perfect loudspeaker – one that neither adds to nor takes away from the recorded performance. And, in the laboratories and listening rooms of our dedicated Research Establishment in southern England, that's been our goal from day one. The design breakthroughs we've made and the technologies we've developed along the way have helped to create award-winning loudspeakers at every level of the market. By working with respected studios like Abbey Road, we've satisfied the world's most demanding listeners. The dream is our business. And today, through networks such as our newly-founded Society of Sound, we're finding performers, technicians and customers who share it. We're getting closer all the time.

From left to right: Michael Gleason and Peter van Hooke, Live from Abbey Road. James Newton Howard, film composer.



Behind the scenes There's a lot more to the CM Series than meets the eye. Bowers & Wilkins senior product manager Mike Gough talks us through some of the technology and ideas that have gone into making the speaker.

Mike Gough, Senior Product Manager

The CM Series sits between the 600 Series and the 800 Series. What's your approach to designing a product like this? Do you begin with the less expensive product and add to it, or do you start with the more expensive one and see what you can take out?

Our approach to design is dictated almost solely by one thing: achieving the best sound quality within the budget at our disposal. That goes for the 600 Series, the CM Series, the 800 Series, and any other speaker we produce. It's not about making a speaker that's a little bit better than the one further down the range, or the ones your competitors make – it's simply about making the best speaker we possibly can.

Having said that, certain aspects of design do stem from customer requirements. Take the tweeter for the CM and 600 Series, for example. With these speakers, the tweeters are mounted into the cabinet rather than sitting on top simply because a large number of our customers want a simpler form – a more classic object in their living room.

At first glance the most striking difference between the CM Series and the 600 Series is how they look. What else is different?

By using high quality external design features like real wood veneers, we've made sure that you're getting a beautiful piece of furniture as well as an outstanding speaker. But the differences go far beyond the superficial. For example, the CM Series comes with longer voice coils and bigger magnets for greater power with less distortion. The bracing of the cabinets is even more solid. Plus we've spent a long time selecting the best components for the crossover.

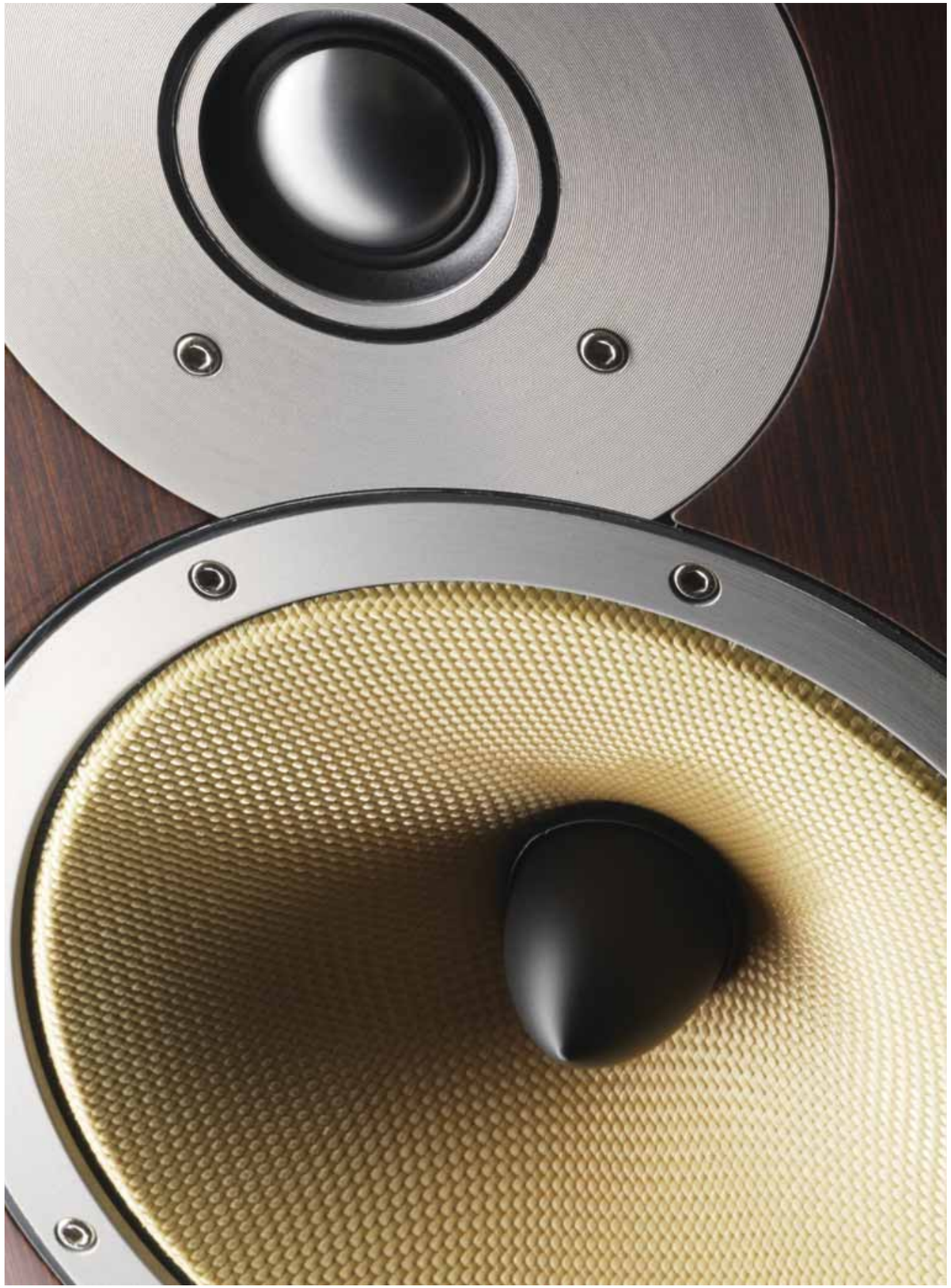
You often talk about the importance of listening to crossover components in order to choose the best ones. Does it really make that much difference?

Absolutely. There's something quite mysterious about the way these components affect sound. You can't even grade components in a simple way. It's an area we're researching to try to understand better. But the bottom line is, yes, it definitely makes a difference. Our engineers are always looking for that special synergy between the crossover components and the drive units – and when they get it right, the overall result surpasses anything you would logically expect. It takes time, good ears and experience.

You've doubled the size of the series with the addition of the CM5, CM9 and CM Centre 2 speakers. What was the motivation behind that?

We wanted to give customers a wider range of speakers to suit different needs and requirements. For example, a large speaker might sound great, but it's not ideal for small rooms. The CM5 is a step up from the CM1 in terms of sound quality but it's still a compact speaker, built for generating excellent sound levels in confined spaces. At the other end of the scale, the top-of-the-range CM9 can generate very impressive levels in quite sizable rooms when it's coupled with a powerful amplifier.

The CM Centre 2 is the larger of our two centre speaker models. It's designed to keep up with the higher output of the floor-standers. It also comes with an FST midrange driver to ensure the best voice matching with the three-way models.

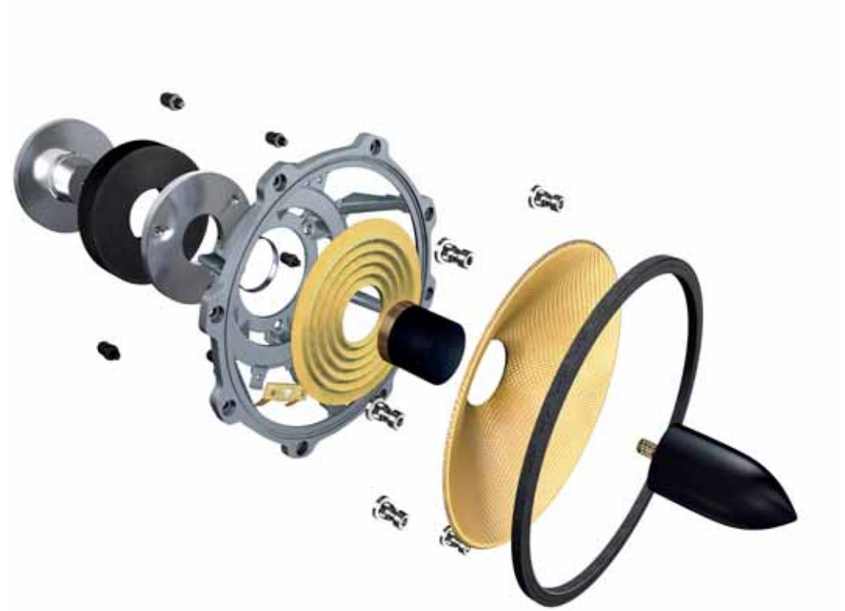


Treble The tweeter in the CM Series is tuned to perfection – and we've made sure the crossover sings in perfect harmony. It's a partnership that produces sweeter, truer high frequencies than you'd ever imagine possible.

Hidden from view inside the cabinet, the crossover is a feature of a speaker that often gets overlooked. Surprising, really – not just because it does the essential job of dividing the source signal into bass, midrange and treble, but also because the way it's constructed is one of the best indicators of the quality of the speaker's mechanical components. The thing to look for is simplicity. The rule is, the better the mechanical design of the drive units, the simpler the electronic design of the crossover can afford to be. And the quality of CM Series drive units is such that we've been able to make the speaker's crossover one of the simplest we've ever produced.

The link between the CM crossover and tweeter is a case in point. The CM Series' superb aluminium dome tweeter has a tube-loaded design – an innovation first introduced by our legendary Nautilus™ speaker that helps to absorb and dampen the rearward travelling sonic vibrations that can cause sound coloration. The fragility and subtlety of the tweeter signal demands the most sensitive treatment, but when you have technology this good, there's no need for any electronic jiggery pokery to get it right. The CM's first-order tweeter filter contains just a single component of the very highest quality, carefully selected after painstaking listening tests.

Midrange Kevlar®: it's impervious to bullets, and just as good at stopping distorting speaker cone resonances dead in their tracks. Combine it with high-end technological refinements like FST™, and you've got a midrange that's anything but middle of the road.



Kevlar® has been a B&W hallmark since 1974, when our lab tests first revealed that the very same qualities that make it so good at repelling gunfire also make it the perfect material for midrange speaker cones. Impregnated with a stiffening resin, and then treated with a polymer coat that seals the fibre and adds damping, a Kevlar® cone maintains a more constant dispersion pattern at all frequencies in its range than any other. The result? Far fewer delayed, time-smearing sounds, and an exceptionally clean, precise midrange.

For a while, we thought that Kevlar® was as good as it could possibly get. But since then we've added something that makes the midrange sound even better. The FST™ (or "fixed suspension transducer", to give it its proper name) enhances the properties of Kevlar® by absorbing bending waves travelling to the edge of the cone, further improving response times and the integrity of sound transmission. It's a highly refined piece of technology we reserve for our most advanced speakers, like the 800 Series reference speaker used at Abbey Road. And now it's come to the CM Series, in the midrange of the CM7, the CM9, and the CM Centre 2.

Bass Rock-solid construction and a good set of lungs are the secret to bass with both power and control. They're qualities the CM Series has in spades.

It's all very well to deliver truly powerful bass, but it's a rare speaker indeed that can do so while preserving the precision and detail essential to the overall richness of the sound. Step forward the CM Series. Longer voice coils and larger magnets help the speaker deliver a prodigious amount of bass impact with complete control and minimal distortion. Combine this with an ultra-stiff speaker cone constructed from a finely tuned mix of paper pulp, Kevlar® fibers and resin, and you've got the kind of bass you need to bring music and movies roaring to life.

But that's just half of the story. For a bass drive unit to operate effectively, the air pressure inside the cabinet needs to be regulated – and that's where B&W's Flowport comes in. The Flowport is the lungs of the speaker, giving the bass driver the air it needs to breathe. And thanks to the dimples that help reduce friction between the surface of the Flowport and the air passing over it, you won't get the odd noises you occasionally hear from more conventional designs. We call it "chuffing". And it's a sound you'll never hear from a CM Series speaker.

The ASW 10CM subwoofer provides all the slamming bass impact you need for maximum enjoyment of movies and music. Ideal for home theatre use, this new addition to the CM Series could also be coupled with a pair of CM1s to add deep bass extension to your hi-fi set up. The bass driver diaphragm of the ASW 10CM is constructed from a rugged, finely-tuned mix of paper pulp, Kevlar® fibres and resin. Surprisingly compact, this subwoofer delivers serious bass power thanks to a 500W amplifier, equipped with audiophile-standard Class D circuitry to keep the unit cool and efficient under pressure.

Finishes We've paid a lot of attention to what goes on inside a CM Series speaker. So it would have been a shame to forget about what's happening on the outside. Thanks to a range of high quality finishes and a painstaking attention to design detail, the CM Series looks every bit as fabulous as it sounds.

Rosenut

Wengé

Black Gloss

The jaw-dropping sound quality of the CM Series commands so much attention that you'd be forgiven for forgetting about the visual aspect of the speaker entirely, at least while the music's playing. But we haven't. After all, a speaker is a piece of furniture too. And the aesthetic qualities of the CM Series will make the speaker look at home in the most stylish of domestic environments.

For example, you'll notice that the grilles attach magnetically, so there's no grille mounting features to spoil the elegant lines of the CM's façade. For the exterior of your cabinets, you have a choice of two classic real-wood veneers: rosenut, or the darker, densely grained wengé. If you're after a less conventional look, we've added a stunning new finish to the range: highly polished gloss black.

Recommended theatre systems The success of a movie depends on assembling the right cast and crew. If you're planning to use the CM Series for home theatre, here are three groups of star performers we think you'll want to roll out the red carpet for.

There are lots of ways to put together a CM Series home theatre sound system – and they don't all have to use just CM Series speakers. If you're in love with the curved shape and deep bass of our groundbreaking PV1 subwoofer (left), there's no reason why you couldn't use it as a replacement for the ASW 10CM.

Your options don't end there. If you're lacking floor space for surround sound speakers, for example, why not substitute them for a pair of Custom Installation in-ceiling models? The CCM 818 (left) fits flush into the ceiling, and features a high-spec Kevlar® cone drive unit angled for great sound directionality.

CM9 Theatre
Big spaces require a big audio-visual set-up to match. CM9 Theatre will fill the largest domestic environment with rich, detailed movie sound.

Main:	CM9
Centre:	CM Centre 2
Surround:	CM5
Subwoofer:	ASW 10CM

CM7 Theatre
Partner two CM7s with a pair of CM1s in the surround position for maximum detail and impact in medium-sized to large rooms.

Main:	CM7
Centre:	CM Centre
Surround:	CM1
Subwoofer:	ASW 10CM

CM5 Theatre
This bookshelf-based set-up may be designed for more enclosed spaces, but with an ASW 10CM subwoofer providing the bass it still packs a mighty punch.

Main:	CM5
Centre:	CM Centre
Surround:	CM1
Subwoofer:	ASW 10CM

The Society of Sound Owning a great pair of speakers is one thing. But if you're passionate about sound, your appreciation won't stop there. You'll want to get involved, learn more and talk with others about it. That's where the Society of Sound comes in. It's a place where you can:

- Download new music in super high-fidelity at the B&W Music Club
- Learn from some of the most inspiring minds in the business - the Society of Sound Fellows
- Join the debate with other sound enthusiasts at the Sound Blog
- Discover the creative potential of sound at the Lab

Find out more at www.bowers-wilkins.com.

Set up in partnership with Peter Gabriel's Real World Records, the B&W Music Club at the Society of Sound is where you can discover brilliant, original music by an ever-changing roster of world-class artists. The music is available to download in super high-fidelity, with no compression.

www.bowers-wilkins.com

	CM9	CM7	CM5	CM1
Technical features	**Nautilus™ tube loaded aluminium dome tweeter Kevlar® brand fibre cone FST midrange Flowport™**	**Nautilus™ tube loaded aluminium dome tweeter Kevlar® brand fibre cone FST midrange Flowport™**	**Nautilus™ tube loaded aluminium dome tweeter Kevlar® brand fibre cone bass/midrange Flowport™**	**Nautilus™ tube loaded aluminium dome tweeter Kevlar® brand fibre cone bass/midrange Flowport™**
Description	3-way vented-box system	3-way vented-box system	2-way vented-box system	2-way vented-box system
Drive units	1x ø25mm (1 in) aluminium dome high-frequency 1x ø150mm (6 in) woven Kevlar® cone FST midrange 2x ø165mm (6.5 in) paper/Kevlar® cone bass	1x ø25mm (1 in) aluminium dome high-frequency 1x ø130mm (5 in) woven Kevlar® cone FST midrange 1x ø165mm (6.5 in) paper/Kevlar® cone bass	1x ø25mm (1 in) aluminium dome high-frequency 1x ø165mm (6.5 in) woven Kevlar® cone bass / midrange	1x ø25mm (1 in) aluminium dome high-frequency 1x ø130mm (5 in) woven Kevlar® cone bass/midrange
Frequency range	-6dB at 30Hz and 50kHz	-6dB at 34Hz and 50kHz	-6dB at 45Hz and 50kHz	-6dB at 45Hz and 50kHz
Frequency response	56Hz - 22kHz ±3dB on reference axis	62Hz - 22kHz ±3dB on reference axis	52Hz - 22kHz ±3dB on reference axis	55Hz - 22kHz ±3dB on reference axis
Dispersion	Within 2dB of reference response Horizontal: over 60º arc Vertical: over 10º arc	Within 2dB of reference response Horizontal: over 60º arc Vertical: over 10º arc	Within 2dB of reference response Horizontal: over 60° arc Vertical: over 10° arc	Within 2dB of reference response Horizontal: over 60° arc Vertical: over 10° arc
Sensitivity	89dB spl (2.83V, 1m)	88dB spl (2.83V, 1m)	88dB spl (2.83V, 1m)	84dB spl (2.83V, 1m)
Harmonic distortion	2nd and 3rd harmonics (90dB, 1m) <1% 90Hz - 22kHz <0.5% 120Hz - 20kHz	2nd and 3rd harmonics (90dB, 1m) <1% 100Hz - 22kHz <0.5% 150Hz - 20kHz	2nd and 3rd harmonics (90dB, 1m) <1% 100Hz - 22kHz <0.5% 150Hz - 20kHz	2nd and 3rd harmonics (90dB, 1m) <1% 110Hz - 22kHz
Nominal impedance	8Ω (minimum 3.0Ω)	8Ω (minimum 3.0Ω)	8Ω (minimum 3.7Ω)	8Ω (minimum 5.1Ω)
Crossover frequency	350Hz, 4kHz	350Hz, 4kHz	4kHz	4kHz
Recommended amplifier power	30W - 200W into 8Ω on unclipped programme	30W - 150W into 8Ω on unclipped programme	30W - 120W into 8Ω on unclipped programme	30W - 100W into 8Ω on unclipped programme
Max. recommended cable impedance	0.1Ω	0.1Ω	0.1Ω	0.1Ω
Dimensions	Height: 1025mm (40.4 in) (including plinth but not feet) Width: 200mm (7.9 in) (cabinet only) Depth: 300mm (11.8 in) (cabinet only) 321mm (12.6 in) (including grille and terminals but not plinth) 370mm (14.6 in) (including plinth)	Height: 910mm (35.8 in) (not including feet) Width: 200mm (7.9 in) Depth: 280mm (11 in) (cabinet only) 300mm (11.8 in) (including grille and terminals)	Height: 340mm (13.4 in) Width: 200mm (7.8 in) Depth: 280mm (11 in) (cabinet only) 301mm (11.9 in) (including grille and terminals)	Height: 280mm (11 in) Width: 165mm (6.5 in) Depth: 255mm (10 in) (cabinet only) 276mm (10.9 in) (including grille and terminals)
Net weight	26.6kg (58.5 lb)	20kg (44 lb)	8.9kg (19.6 lb)	6.7kg (14.7 lb)
Finishes	Cabinet: Grille: Real wood veneers Rosenut Black Wengé Black Painted finish Gloss Black Black	Cabinet: Grille: Real wood veneers Rosenut Black Wengé Black Painted finish Gloss Black Black	Cabinet: Grille: Real wood veneers Rosenut Black Wengé Black Painted finish Gloss Black Black	Cabinet: Grille: Real wood veneers Rosenut Black Wengé Black Painted finish Gloss Black Black

CM Centre 2

Technical features	**Nautilus™ tube loaded aluminium dome tweeter** **Kevlar® brand fibre FST midrange** **Flowport™**
Description	3-way vented-box system
Drive units	1x ø25mm (1 in) aluminium dome high-frequency 1x ø100mm (4 in) Kevlar® cone FST midrange 2x ø165mm (6.5 in) Paper/Kevlar® cone bass
Frequency range	-6dB at 40Hz and 50kHz
Frequency response	56Hz - 22kHz ±3dB on reference axis
Dispersion	Within 2dB of reference response Horizontal: over 60º arc Vertical: over 20º arc
Sensitivity	89dB spl (2.83V, 1m)
Harmonic distortion	2nd and 3rd harmonics (90dB, 1m) <1% 90Hz - 22kHz <0.5% 120Hz - 20kHz
Nominal impedance	8Ω (minimum 3Ω)
Crossover frequency	350Hz, 4kHz
Recommended amplifier power	30W - 200W into 8Ω on unclipped programme
Max. recommended cable impedance	0.1Ω
Dimensions	Height: 218mm (8.6 in) Width: 590mm (23.2 in) Depth: 280mm (11 in) (cabinet only) 301mm (11.9 in) (including grille and terminals)
Net weight	18.7kg (41.1 lb)
Finishes	Cabinet: / Grille: Real wood veneers Rosenut / Black Wengé / Black Painted finish Gloss Black / Black

CM Centre

Technical features	**Nautilus™ tube loaded aluminium dome tweeter** **Kevlar® brand fibre cone bass/midrange** **Flowport™** **Magnetic shielding**
Description	2-way vented-box system
Drive units	1x ø25mm (1 in) aluminium dome high-frequency 2x ø130mm (5 in) woven Kevlar® cone bass/midrange
Frequency range	-6dB at 45Hz and 50kHz
Frequency response	55Hz - 22kHz ±3dB on reference axis
Dispersion	Within 2dB of reference response Horizontal: over 20º arc Vertical: over 60º arc
Sensitivity	85dB spl (2.83V, 1m)
Harmonic distortion	2nd and 3rd harmonics (90dB, 1m) <1% 100Hz - 22kHz <0.5% 200Hz - 22kHz
Nominal impedance	8Ω (minimum 4.3Ω)
Crossover frequency	4kHz
Recommended amplifier power	30W - 120W into 8Ω on unclipped programme
Max. recommended cable impedance	0.1Ω
Dimensions	Height: 166.5mm (6.6 in) Width: 480mm (18.9 in) Depth: 255mm (10 in) (cabinet only) 275mm (10.8 in) (including grille and terminals)
Net weight	11.5kg (25.3 lb)
Finishes	Cabinet: / Grille: Real wood veneers Rosenut / Black Wengé / Black Painted finish Gloss Black / Black

ASW 10CM

Technical features	**Paper/Kevlar® cone long-throw driver** **500W Class D amplifier**
Description	Active closed-box subwoofer system
Drive units	ø250mm (10 in) paper/Kevlar® cone long-throw 76mm (3 in) dia voice coil - dual suspension diecast chassis
Frequency range	-6dB at 18Hz and 25/140Hz adjustable (EQ at A)
Frequency response	±3dB 25Hz – 40/140Hz adjustable (EQ at A)
Bass Extension	-6dB at 18Hz (position A) -6dB at 23Hz (position B) -6dB at 28Hz (position C)
Amplifier	Power output: 500W Rated power consumption: 94W Standby power consumption: 0.8W Input impedance: 33kΩ Signal / noise: >80dB Functions: Input level (line in) Input level (speaker in) Low-pass filter frequency Low-pass filter bypass (line in) Bass extension Bass roll-off alignment Auto sense on/standby Phase switch Inputs: Line In (RCA Phono) Speaker in (Binding post) 12V trigger (3.5mm jack)
Low-pass filter	Active 4th-order, variable cut-off frequency
Dimensions	Height: 325mm (12.8 in) (not including feet) Width: 325mm (12.8 in) Depth: 362mm (14.3 in) (including grille and controls)
Net weight	19.2kg (42.3 lb)
Finishes	Cabinet: / Grille: Real wood veneers Rosenut / Black Wengé / Black Painted finish Gloss Black / Black

09/08 PU20153

Bowers & Wilkins

B&W Group Ltd
Dale Road
Worthing West Sussex
BN11 2BH England

T +44 (0) 1903 221800
F +44 (0) 1903 221801
info@bwgroup.com
www.bowers-wilkins.com

B&W Group (UK Sales)
T +44 (0) 1903 221 500
E uksales@bwgroup.com

B&W Group North America
T +1 978 664 2870
E marketing@bwgroupusa.com

B&W Group Asia
T +852 2 790 8903
E info@bwgroup.hk