

»Rediscovering  
Music«



Review:  
Elac BS 403

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Reprint

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## LOUDSPEAKERS

**E**lac's new series 400 has been available at the dealers since October 2012. It closes the gap between the series 500 with Jet coax chassis and the bestselling series 200. Looking at the loudspeaker range from Kiel, one can splendidly start a controversy if such a broad diversification like Elac's is really necessary. There are indeed arguments in favour of it: Each development of or merely tiny

robots in favour of ultimate precision. Today a large percentage of the Elac speakers are equipped with this exceptional tweeter. Another asset of the new tweeter: the frequency crossover could do with a simplified layout which is supposed to further enhance the resolution behaviour.

Neither does the low/mid woofer look as if it came from the shelf of well-known chassis suppliers. No, Elac insists on their

# Rediscovering Music

**Elac's new BS 403 is a little gem with a multifaceted sound image that touches the hearts of the listeners from the very first moment.**

improvement on chassis, crossovers and cabinet designs requires a new classification. And in the case of the series 400, they've even redone everything.

The creative machinery at Elac's never stands still. From the JET tweeter to the crystal cone of the low/midrange chassis everything was put to the test. And the technicians did indeed find room for improvement. JET stands for a tweeter design which Elac has perfected. Based on the principle of the legendary »air motion transformer« by Dr. Oskar Heil, Elac has constantly refined this design over the years. Its sound is markedly different from that of the otherwise used dome tweeters.

## Innovation in series

The folded foil diaphragm with its lamellar construction is driven by an extremely strong magnet system of neodymium rods. Contrary to diaphragms that move like a piston and merely compress the air, this diaphragm which is folded like an accordion squeezes the air out of its foldings. In addition the diaphragm surface of the JET tweeter is about ten times larger than in a conventional 25 millimetre dome tweeter.

## The kicker

Although the thin foil has an unfolded diaphragm surface that's several times larger, the effective radiating surface is small which results in a high efficiency with exceptional dynamics and a low directivity. Therefore the JET tweeter can take even high dynamic peaks in theory without complaint. In its fifth upgraded version the JET is able to reproduce the incoming electrical signals with even greater precision – and practically no inertia at all.

The production of this tweeter in Kiel is run partly automated. Especially the glueing of the diaphragm is done by



freedom to design the drivers just the way they want them to be. Hence only an in-house development can do it. This is exactly what sets Elac apart. Countless innovative chassis owe their existence to the art of North German engineering. And so does the AS-XR cone.

The black anodised, concave aluminium cone with its crystal-like embossing yields an extremely high stability in the low/midrange and, owing to a damping sandwich construction and beading design, very low partial resonances. The high rigidity of the diaphragm is provided by the pulp cone glued on the reverse, the diamond embossing produces defined partial vibrations. The manufacturers have deliberately gone without the otherwise usual dust cap and moulded the cone concavely from a single form instead. Hence there is no break in its rigidity; rather do we see fluent transitions, which renders the cone breakup more controlled and thus ensures a more continuous radiation behaviour.

The spirit and purpose of this intricate construction is a transmission with as few resonances as possible, especially of the midrange. Precision and the absence of colourations are the result of the sandwich drivers. In the BS403 both precious parts are used.

The little 403 is sitting enthroned two centimetres high on a base plate. This clearance is necessary for the down-firing bass reflex port, which can thus push out its low Helmholtz resonance unhamperedly. The classic cubicform cabinets are available in various guises. Apart from a satin black finish, other lacquer finishes and a walnut veneer are on offer in high-gloss versions. The fabric cover is held on the front by magnets. The handy terminals on the rear side will accept even large cable diameters and, of course, cable lugs.

The Elac may well be used free-standing on speaker stands, because its low end fundament is strong enough to play



adequately even without the support from a rear wall. Advantage: When placed free-standing without annoying early reflections e.g. from a sideboard or a rear wall, the little Elac jewels reveal excellent spatial imaging.

### And exactly this showed in the listening test

For instance, with Patricia Barber the North German beauty knows how to unfurl the voice and percussions with excellent resolution and brilliant spatial imaging. The same holds true of Diana Krall's »The Girl In The Other Room«. This natural out-of-nowhere dynamics in the highs is truly impressive. The sizzling of the cymbal is just great, because nothing appears to be put on here, the percussions simply sound authentic. Mrs Krall's voice is communicated convincingly – not in the least



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anaemic or grumbling. Amazing: Despite their free-standing placement, tonality is also right on. The little Elac even plays as masterfully as a full-grown floorstander. This is how it's supposed to be.

## Test Result

I've listened to an awful lot of speakers in my life, but these Elacs have got something which can hardly be described. They are playing by no means with any conspicuous attitude. No, rarely did I ever enjoy music as stressfree over such a long time. The listening check lasted for hours without having to pause because a certain satiation would have been imminent – and that's really conspicuous now. People can rediscover their record collections. Tonality, reproduction of detail and spatial imaging are just right. There are simply no artefacts which could hamper music listening – no loudspeaker can't reap a higher praise. In this size category they should mark the end of the flagpole!

*Michael Jansen ifn*



## Elac BS 403

**Category:** Compact loudspeaker

**Design:** Two-way bassreflex

**Chassis:** 1 x 15 cm AS-XR cone, 1 x JET-5 tweeter

**Crossover frequency:** 2.5 kHz

**Impedance:** 4 ohms

**Finishes:** Walnut, tobacco, high-gloss white, high-gloss black, satin black, any RAL colour available at a premium

**Suitable stands:** Elac LS70 II

**Dimensions (W x H x D):** 17 x 31 x 30 cm  
(6.7 x 12.2 x 11.8 in.)

**Weight:** 7.5 kg (16.2 lbs)

**Price/pair:** 1,700 EUR

**Warranty:** 10 years

### Contact

Elac Electroacoustic GmbH

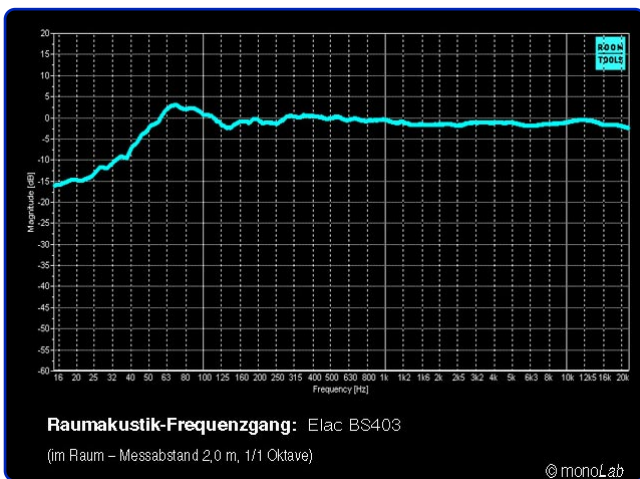
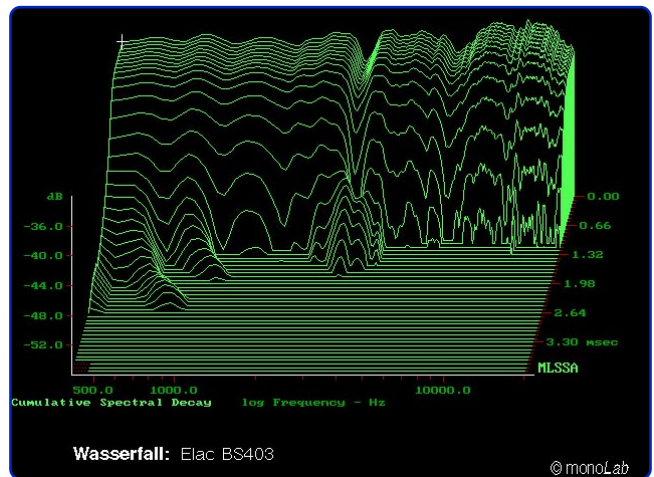
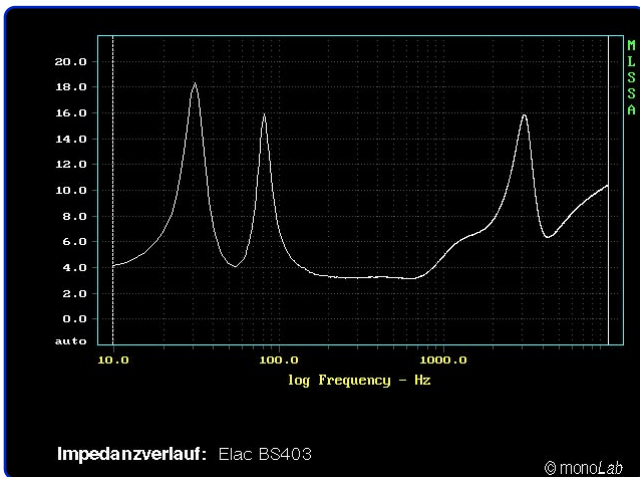
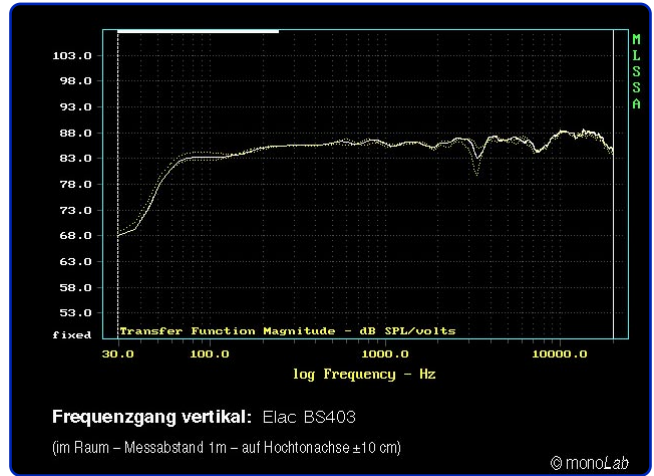
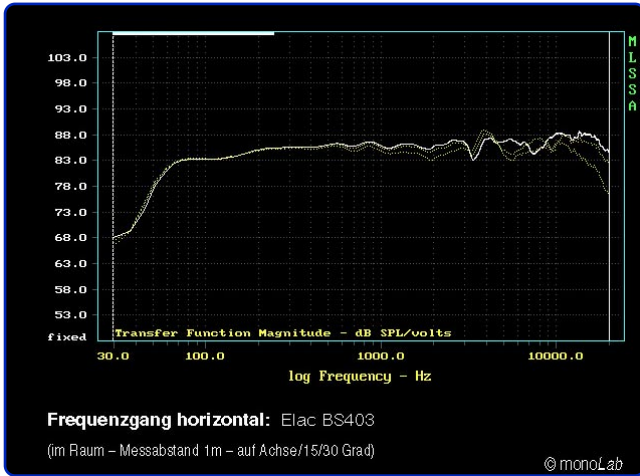
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**Highlight**

<b>Sound quality</b>	<b>superb</b>
<b>Laboratory</b>	<b>good - very good</b>
<b>Workmanship</b>	<b>very good</b>
<b>Overall score</b>	<b>very good</b>

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**Elac BS 403**  
**Test verdict: very good**