

Thiel CS 6

Paarpreis: 20000 Mark

Rhodes
BY BRUNNEN



Reprinted from

image hifi

Germany • Number 20 • April 1998

Thiel CS 6

Price per pair: 22,000 DM (\$12,000 U.S. in Germany)

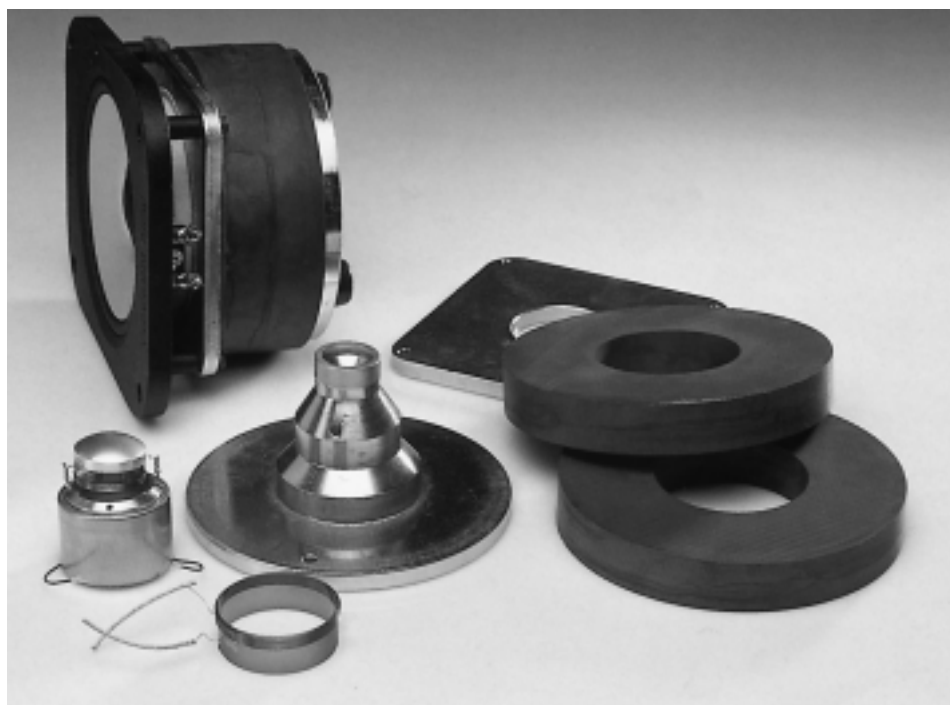
Did you start becoming interested in hi-fi in the seventies like me? If you did, according to most audiophiles, you have, without fail, fantasized about concrete speakers at some point. Or maybe you were one of those listeners who made their own molds and mixed cement? I didn't take it quite that far. I only had one pair of ATR monitors, which I laboriously built by hand with a layered sandwich cabinet. And if you would like to know what the middle layer between the two walls of veneered chipboard contained, it was—correct!—made of the finest, carefully dried quartz sand.

The result of my several week-long stay in my workshop did not just pose the problem that the speaker could only be moved by at least two persons for whom the words “back problems” were foreign due to their age, but it was also clear that its looks would take more getting used to than the original speaker model. This was just as well, because we are talking about a time when a product was able to obtain the imperial rating of “high end” if one could tell at first glance that its creator did not pay any attention to its appearance.

Luckily, some opinions have changed in the decades passed—contrary to the laws of physics. And that is why the Thiel CS 6 can not only sport nice looks which fit harmoniously into any modern living space (living room just sounds too contemptuous) but can also use a

baffle cast from concrete. If it is a matter of reducing or even preventing unwanted cabinet vibrations, then concrete, which has received a bad reputation due to its excessive weight, is still considered the material of choice despite modern plastics technology. Even though the positive acoustical characteristics of concrete remain the same as always, unfortunately so has its specific weight. If only the physical capacity of our now slightly aging music fans also remained the same when coping with stress!

So I am now called to gracefully “cut to the chase” before the CS 6 receives a false image on account of all my nostalgic moments, because Jim Thiel is the complete opposite of a retrogressive traditionalist. Rather, the CS 6 is a product of profound research and sets itself apart from others with a series of innovative solutions. Yet this experienced designer does not rely solely on the validity of his test results. Even on the first page of his (by the way, very informative) technical design information paper, he emphasizes that, in



The coaxial midrange/tweeter designed and built by Thiel. Copper sleeves are used around the pole piece keep harmonic distortion at a minimum. The voice coil is very short compared to the long magnetic gap

his opinion, good test results do not automatically assure good sound. Therefore don't be tempted to arrive at the wrong conclusion despite the multitude of diagrams used: the designer of the CS 6 is anything but an unyielding technocrat. Technology serves him solely as the means to an end. And that is musical adventure.

Nevertheless—or that's exactly why—it is worth taking a look at the special design features of the CS 6. It is the first THIEL speaker that uses drivers exclusively designed and built by his company. All three drivers use diaphragms made of aluminum, which promote uniform frequency response. Also, this material excels with its high stiffness so that the diaphragms resonance occurs only outside the audible range or far above the driver's range of use. And, on the CS 6, it is at a high enough frequency because Jim Thiel separates the three-way frequency ranges with network slopes of only six decibels per octave. This was the only way phase distortion could be avoided. In addition, there can be imbalances in the off-axis frequency response at the crossover frequencies of speakers that use higher-order slopes, which will, for one, be to the disadvantage of listeners who are not sitting in the sweet spot. This also will lead to non-linear reflections from walls and ceilings.

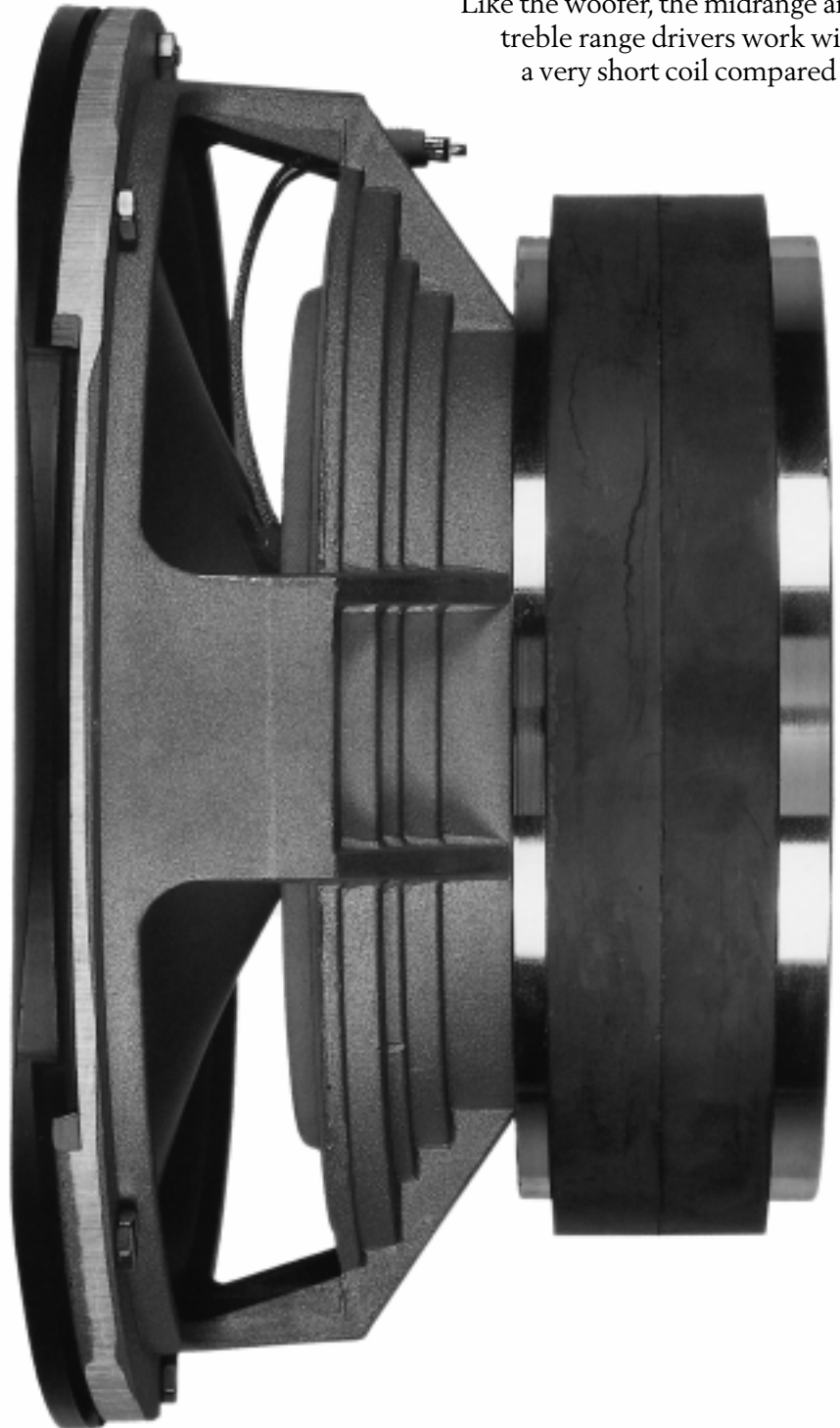
The CS 6's crossover insures that the *acoustic* output of the each driver drops by six decibels per octave at the crossover point. To achieve this, much more complex circuitry is required than in ordinary first-order networks which merely reduce the signal supplied to the driver by 6 dB. Twelve of the 32 crossover components, by the way, are not used in the slope shaping for the drivers, but provide correction in the driver's frequency response. Tonal performance is also improved by the speaker baffle's rounded shape. That is, emitted sound waves would diffract at any sharp cabinet edges.

Jim Thiel also devoted special attention to the design of the coaxial

midrange/tweeter drivers. Ordinarily, coaxial driver mounting has the advantage of time correct output but it can also produce distortions. According to the designer, this is due to the shape of the diaphragm of the midrange driver. Because of its cone shape, it acts like a funnel for the high frequencies. Making the diaphragm as flat as possible would, however, not be a good solution either, as it would no longer be able to provide the

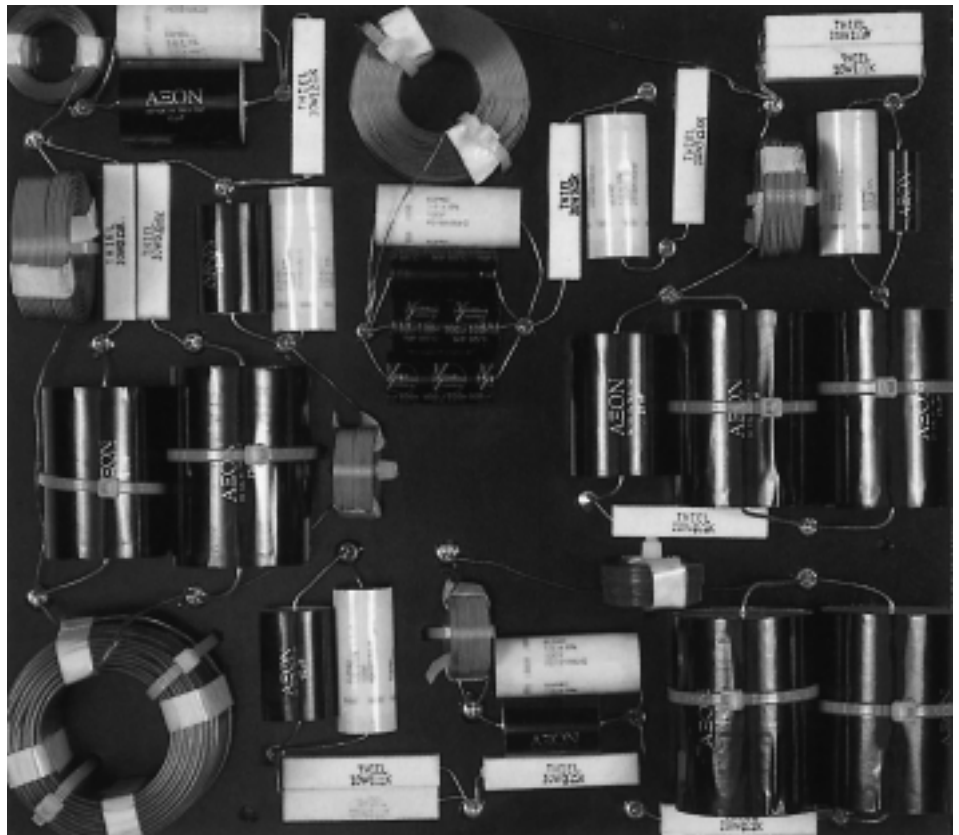
required rigidity. The CS 6's midrange diaphragm therefore consists of a sandwich type construction: a bottom aluminum layer in a cone shape insuring mechanical rigidity, and a second top diaphragm with a flat shaped construction insuring the least possible diffraction of high frequencies. Between them is a very light, molded polystyrene center, which additionally strengthens the entire structure.

Like the woofer, the midrange and treble range drivers work with a very short coil compared to



the length of the magnetic gap. This inversion of standard proportions has the effect that the coils do not leave the linear magnetic field even during strong excursions. To further reduce harmonic distortion, the pole pieces of all the drivers use copper sleeves. Yet it certainly isn't necessary to know all these construction details to be able to correctly evaluate the drivers. One look at the massive cast baskets and powerful magnets is enough to recognize that we are looking at high-end speakers. Having said this, the drivers also fit excellently with the finely veneered cabinets of the CS 6. Whatever way you look at it, the Thiel speaker leaves one with a superb impression.

Well, I would like to be able to tell you in great detail about my efforts to find the best room placement for the CS 6 in a tedious, detailed explanation through which all the speaker's advantages are demonstrated to their fullest extent, but I cannot. Because the only effort that the Thiel CS 6 created for [THIEL's German distributor] Jens Arnaschus from Sun Audio and myself, consisted of our moving it into my listening room. Once there, we placed it exactly in the same spot where the Roksan Darius and, to my surprise, also the Trenner & Friedl

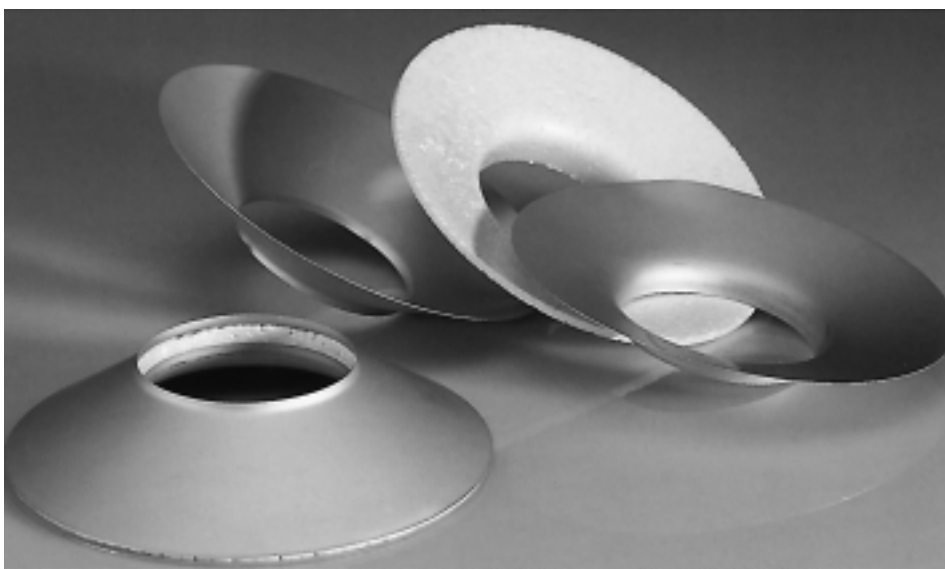


Crossovers can look this concise and tidy, even if they are not mounted on printed circuit boards. Jim Thiel's designs are committed to using the best components

Gordon looked very comfortable. The distance to the side and back walls is actually in proportion to room size. Measuring from the center of the front baffle and the back side of the speaker, each distance is approximately one meter. At first

glance, this appears very unusual, however, because the speakers are oriented at a point that is one meter in front of the listener's position. This square placement allows the speakers a very wide soundstage with an impressive sense of depth. This arrangement is certainly not universal, but if the standard placement rules are not taking advantage of your speakers' strengths, you might as well try out this "askew" alternative. The requirement for success, however, is that the speakers function in a balanced and omnidirectional manner.

For this reason, Jim Thiel has utilized a coaxial midrange/tweeter as well as the a phase correct crossover with the CS 6. It is therefore no surprise now that the CS 6, for one, sounded so utterly convincing in the described position. With good recordings such as RCA reissues, it was not possible to detect the location of the speakers. I could listen directly into the concert hall; the illusion was nearly perfect. The



The 3-layer sandwich diaphragm of the midrange driver: The bottom, cone-shaped aluminum diaphragm insures mechanical rigidity and the top, flat-shaped diaphragm prevents diffraction of high frequencies.

only effort required with a CS 6 is some brief warm-up time. While bass and midrange appeared very coherent, the treble seemed a bit coarse and slightly throaty at first.

But the CS 6's deep bass reproduction alone makes break-in a pleasure. Even at the lower octaves, the speaker concedes neither speed nor dynamics. I never feel the desire for an additional subwoofer. Rarely have I listened to a passive radiator speaker system which plays so deep and, at the same time, with such detail. Usually, speakers with strong bass acquire their fervor at the deepest levels with some trade-off as far as definition is concerned. The CS 6, however, does not need to enter into this type of "horse-trading". It simply offers both: powerful, deep bass and high precision.

Little by little, the high frequencies abandon their initial modesty upon break-in. Fortunately, they do not turn into a toothless pussycats. If required by a record or CD, the speaker is capable of a virulent bite. Despite its fantastic resolution, it never leans towards coldness. Just like the entire speaker, even the tweeter is remarkably honest. It doesn't sugarcoat anything. A vigorously played saxophone displays the necessary aggression and even violins are conveyed without attenuation by the CS 6. If powerfully struck cymbals explode in the room, it is reproduced with an almost provocative nonchalance. In addition, almost unlimited dynamic capabilities and breathtaking speed result. To me, the Thiel speaker almost seems like a matured, perfected incarnation of my Roksan Darius. These are accolades which only I can closely appreciate since I am still devoted to this speaker with such strong positive characteristics, despite its deficiencies.

And these are deficiencies the CS 6 does not possess. It presents details in abundance, does so without a subwoofer, reveals no sound deficiencies and conceals yet the tiniest bit of room information.

Despite its truly exemplary performance, the CS 6 is not at all squeamish. It is completely different from the genteel, softened high-end speakers which always shower the listener with euphony, no matter how fiercely a combo or orchestra are "cutting loose". A Thiel speaker, on the other hand, will carry you dangerously close to relentless reality in such situations. And that's how it should be. Because after all, the goal is an emotionally breath-taking musical experience.

The Thiel CS 6 proves to be less difficult to position due to its perfect off-axis response. Despite its physical size, acoustically it almost vanishes with good recordings. One simply just enjoys the music. Nothing points to the speaker location, an accomplishment that has been achieved only by a few speakers of this size. Thanks to its great output, the CS 6 masters even vigorous party output levels. However, good power from the amplifier is also required. An ideal amplifier should not be stingy with its performance.

If you have always wanted to call one of these heavy concrete centaurs your own, but didn't want to risk domestic harmony with your spouse—respectively your significant other—the Thiel CS 6 should be your dream speaker. It really doesn't look like it has been partially made with this much cosmetically disdained material, however, acoustically speaking, a very helpful material. And even—or maybe rather because—if you prefer to picture yourself as partial to music lovers rather than technically oriented hi-fi fans, you should already have your explanation ready for them. Because the Thiel CS 6 is worth all the effort—even from a physically large and unquestionably also pecuniary perspective. Such a distinctive live character and, most of all, such musical deep bass can't be found anywhere else at this price.



Rating: Superb

image info



Thiel CS 6 loudspeaker

Design:	dynamic, three-way, with passive radiator
Nominal impedance:	4 Ohm
Minimum impedance:	3 Ohm
Efficiency:	86 dB/W/m
Input:	1 pair gold-plated terminals
Special features:	Midfrequency and treble range drivers in coaxial layout
Measurements (W/H/D):	13/50/19 in
Weight:	156 pounds
Price:	DM32,000 (\$12,000 U.S.)
Warranty:	10 years

Author: Dirk Sommer
Photography: Rolf Winter

image contact

Sun Audio Vertriebs GmbH
Schneckenburgerstraße 30
81675 Munich, Germany Telephone:
011-49-89-479443

image test result

♪♪♪♪ Superb