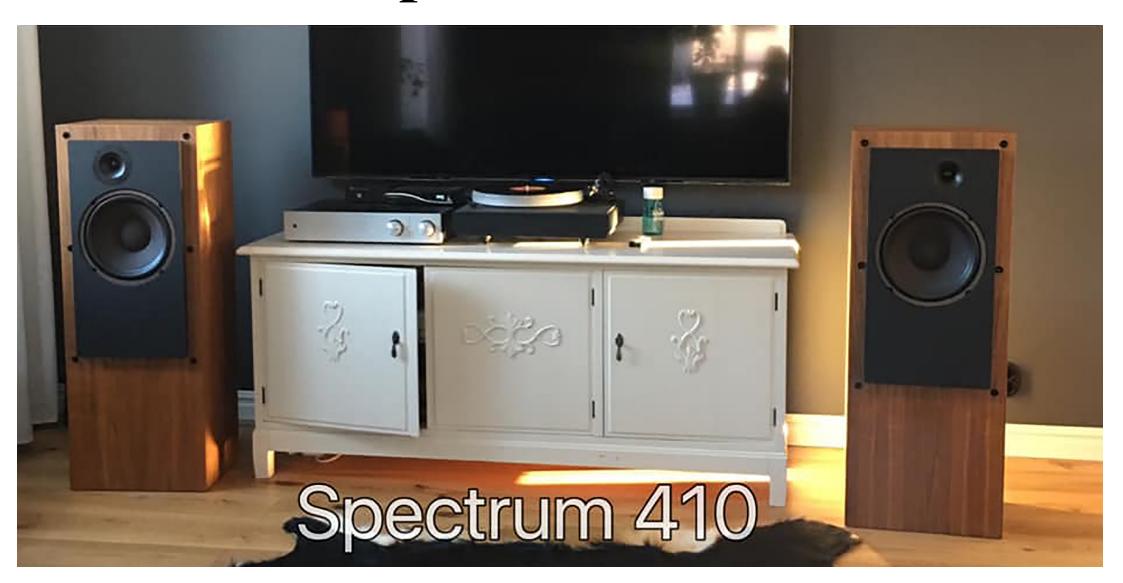
Spectrum 410



The Spectrum 410 is a large dynamic bass reflex speaker with an internal volume of approx 100 l. It was manufactured from

1986 to 1993. It handles 28-20Khz. In 1988 Spectrum 410 were classed as a a Stereophile Class C component. Oak or walnut

finishing with black baffle and back, floorstanding, 2- way, 10"

woofer, 1" tweeter. The tweeter is a horn loaded SEN-lab D2806

2A, mounted offcentre high on the baffle, later named

Dynaudio D28 after a corporate takeover. The woofer is a 10 inch of Spectrum's own design crossing over to the tweeter in the 2-3KHz range. Sensitivity 90db, 6 ohm. The crossover is placed directly behind the binding posts and the internal volume is filled with rockwool (or similar).

The Spectrum 410 was handmade in Toledo, Ohio in the late eighties with amazing build quality - the front baffle thickness of 1½ inch is just one example of the thought and care that went into designing these. The enclosure measures 100 litres, weights 50lbs and uses the fantastic SEN- lab D2806 (more commonly known as the Dynaudio D28) tweeter together with a 10" element of their own design. It reaches down to 29hz, albeit with a steep drop-off afterwards. It's designed to be tilted backwards about 5° to time align the drivers and move them on axis vertically and originally had tilted stands.

Lyssningstest

Vi kopplade 410:s till en Bryston 4BST och DAC. Vi började testen med Diana Kralls cover av Sorry Seems to be the Hardest Word (Live) frånhennes album Wallflower. Det första vi märkte var 410:s totala klang och tonnoggrannhet följt av hur dess lågfrekvens-återgivning matchade den för en 12 " studiomonitor.

När vi bytte till det mycket mer utmanande spåret Temptation från Girl in the Other Room blev vi ännu mer imponerade av den låg-frekvens-svaret från systemet.

Efter att ha ökat toe-in något belönades vi med utmärkt avbildning. Sång och instrument separerades lätt och 3-D-känslan av scenen var genast uppenbar. Båda spåren förmedlades med häpnadsväckande realism, och dynamiken i livein-spelningssessionen.

Designen på 410 skiljer den från nästan alla andra högtalare vi någonsin testat.

Det krävdes ingen ytterligare höjning eller lutning för att passa perfekt till lyssnarposition.

Vi försökte stressa högtalaren genom att vrida volymen uppåt på Madonnas Imponerande ögonblick från hennes album Music. Ljudet presenterades meden realism som vi kan förvänta oss av ett professionellt system och kanske mer

viktigare är att högtalarna inte uppvisade förvrängning förrän långt bortom en bekväm (säker) lyssningsnivå.

410:s stannade kvar hos oss i en vecka där de testades med en mängd olika musik.

Det enda märkbara problemet var deras tendens göra dåligt mastrade inspelningar som gynnar höga frekvenser ännu mer dåliga. Med detta sagt, bara få högtalarsystem uppvisar den nivå av kontroll som krävs för att spela upp dessa inspelningar utan att tröttna öronen, och de ä r m y c k e t d y r a r e ä n 4 1 0 : s

Slutsats

Om du letar efter ett välgjort tvåvägssystem och kan hitta ett par Spectrum-Högtalare Model 410s (de är sällsynta), hugg tag i dem.

Du kommer inte bli besviken med detta.

/Audiophile Nirvana system. Reference Recording List and Information

Spectrum Loudspeakers was a speaker manufacturer based in Toledo, Ohio. It was founded by two engineering graduates who, much like Snell, set out to design and build high quality speaker systems using commonly available drivers. The company was well known for its quality control. Each driver was tested before being approved, which resulted in roughly 25% of all the drivers supplied to them being

rejected. Their cabinets were also very well constructed. The front baffle on the Model 410 is an excellent example of this. It's 1.5" thick bonded MDF, covered in hand oiled Walnut or Oak veneer.

We received a pair of the Model 410s that had been recently restored by our friends over at Pax Innovation. The 410s showed up over at Pax Innovation during the time they were doing a complete restoration on a pair of Altec Lansing Model 14s that had been salvaged from an estate sale for our testing system. The somewhat unique design of the 410 made us curious, and we asked the owner if we could borrow them.

It was clear that Spectrum Loudspeakers had given careful thought to the design of this speaker. What could easily have been a bookshelf with limited capabilities was turned into an wonderful floor standing speaker. The attention to detail was everywhere apparent on the 410. The binding posts sit high on the back side, directly behind the crossover and driver to minimize wire length and improve amplifier damping. Instead of the cheap plastic binding posts found on so many speakers, Spectrum went with nickle plated studio grade five-way binding posts. This was at a time when most manufacturers were still using spring loaded clip connectors. By choosing to make the 410 a ported tower they were able to maximize the low frequency response of the system and minimize distortion. They placed the 410 on two black wedges causing it to be tilted back about 5 degrees. This improved time alignment and made the drivers on-axis with a normal listening position. The 410 was sold in mirror image pairs.

The cabinet is $38.5 \times 14.5 \times 11.5$ inches and weighs about 50 lbs. The 410 utilizes a 10" low frequency driver along with what appears to be a polymer dome tweeter set into an acoustic lens. Spectrum claimed the system had a frequency response of 28 Hz to 20 kHz with a sensitivity of 90db, and a nominal impedance of 6 ohms.

Listening Tests

We hooked the 410s up to a Bryston 4BST and DAC. We started off the listening tests with Diana Krall's cover of Sorry Seems to Be the Hardest Word (Live) from her album Wallflower. The first thing we noticed was the 410s overall timbre and tonal accuracy followed by how its low frequency output matched that of a 12" studio monitor. When we switched to the much more challenging track Temptation from Girl in the Other Room, we were even more impressed by the low frequency response of the system. After increasing the toe-in slightly, we were treated with excellent imaging. Vocals and instruments were easily separated, and the depth of the stage was at once apparent. Both tracks were conveyed with startling realism, and the dynamics of live recording session.

The design of the 410 set it apart from almost every other speaker we had ever <u>tested</u>. <u>It didn't require</u> additional raising or tilting to be perfectly matched to the listening position.

We tried to over-power the speaker by pushing the volume upwards on Madonna's Impressive Instant from her album Music. The aural circling came through with the realism we would expect from a professional system, and perhaps more importantly, the transducers didn't begin to exhibit distortion until well beyond a comfortable (safe) listening level.

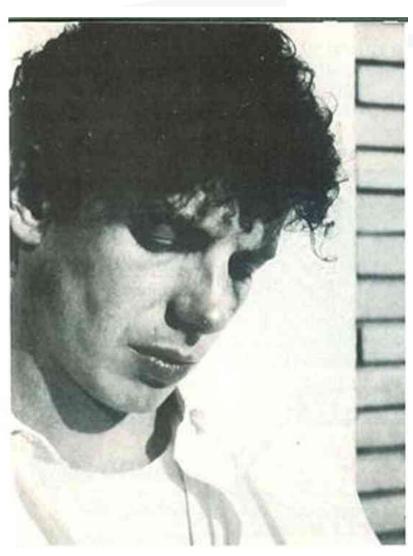
The 410s remained with us for a week where they were tested with a wide variety of music. The only noticeable issue was their tendency to make poorly mastered recordings that favor high frequencies even more distressful. That being said, only a few speaker systems exhibit the level of control required to play back these recordings without fatiguing your ears, and they are far more expensive than the 410s.

Conclusion

If you're looking for a well made two-way system, and can find a pair of Spectrum Loudspeakers Model 410s (they are rare), grab them. You won't be disappointed with this system.

Audiophile Nirvana Reference Recording List and Information

Down below From Swedish ad



Det enda som får plats hemma hos den här killen är hans nya jättelika pinnstol och hans högtalare, en tomma plånbok.

Med ett brinnande intresse för musik, gärna på hög volym, tog han steget fullt ut. Han tömde plånboken och fyllde lägenheten med ett par gigantiska högtalare. Grannarna skrek, banken sa upp kontot och hans fru gick ifrån honom.

Han hade kunnat undvika alltihop om han hade lyssnat på Spectrum. Då skulle livet fortfarande le mot honom.

Se till att Du inte gör samma misstag. Fråga efter högtalarna som har slagit stora hål i konkurrenterna, men får plats i bokhyllan.

Och kostar hälften.

Hade han hört talas om Spectrum hade han sluppit lägga ut en förmögenhet på att få bra ljud hemma. Dessutom hade nog inte hans fru gått ifrån honom. Hon kunde aldrig riktigt vänja sig vid att lägenheten såg ut som ett pannrum.

Ur Elektronikvärlden 6/7 -87

Spectrum 410

100 liter ren musik

Sammanfattningen av allt detta är att Spectrum 410 är en av de allra bästa högtalare vi har lyssnat till. Den har en fenomenal basåtergivning som dessutom hänger musikaliskt samman med resten på ett övertygande sätt. Därtill har den en osedvanligt levande dynamisk förmåga. En verklig musikalisk möbel!

