



Fresh From the Bench

Focal's Spirit Professional Headphones

By
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(Portugal)

Focal is a well-known French speaker manufacturer of professional audio products as well as high-end speakers and car audio systems. Last year Focal released its first headphones. Among the models intended for the hi-fi and consumer markets, Focal also introduced the Focal Spirit Professional, a closed-back headphone design built for the professional musician or recording studio engineer. We recently tested the Focal Spirit Professional to discover what this model brings to an already crowded and very competitive headphone market.

Focal has been developing high-end hi-fi speakers and drivers for more than 30 years. It has established itself as one of the most prominent and valuable brands in that industry. For years, Focal also manufactured drivers and parts for other brands (e.g., KRK, L-Acoustics and Wilson Audio) in part because the company has manufacturing capabilities to build almost anything in its Saint-Étienne facilities.

Focal presents itself as a very engineer-driven company, with a focus on its R&D department. It has provided the industry with several inventions (e.g., the "inverted dome tweeter," the "W" sandwich cone, and the beryllium tweeter). The beryllium tweeter used by Focal is manufactured by Materion Electrofusion using the Truextent diaphragms, as is the case with the majority of transducer manufacturers that utilize genuine beryllium in their designs. Beryllium is 10 times more expensive than gold and seven times more rigid than titanium or aluminum, without their weight. Because of its high rigidity and low mass, it is a perfect material for tweeters. However, Focal only uses it on its premium products because it is expensive to manufacture.

Initially known as JMLab, Focal also has several products in the car audio industry. When the company opened in the late 1980s, it developed and manufactured car audio speakers, amplifiers, and systems. In 2003, Focal launched a range of professional monitors, increasing its brand strength among audio professionals. Now, it's fairly common to see models such as the Focal Twin 6be and the

Focal SM9 in studios all over the world. As part of

its expansion effort, Focal released its first headphones, the Spirit line, in 2013. The circumaural headphone line includes the Spirit One, which was created as an audiophile headphone for mobile users; the Spirit Classic, a full-size high-quality product for the hi-fi market; and the Spirit Professional headphones, the model we reviewed for this article.

Features and Specifications

The Focal Spirit Professional headphones are sold with a high-quality case filled with enough foam to secure the headphones and all the accessories in place. Focal carefully designed the case to serve as a perfect storage place when the headphones are not in use. The headphones are bundled with a detachable cord, which is obviously a

The Focal Spirit range of headphones is the first of its kind from the French speaker manufacturer.



major requirement for professional headphones. The low-impedance oxygen-free copper (OFC) coiled cable measures 13' and comes with a standard tip/ring/sleeve (TRS) connector.

Focal also included a smaller straight cable with a remote control and a built-in microphone to use the headphones with a smartphone, tablet, or laptop. This is a nice feature, as it makes the headphones usable in more applications. It also makes these professional headphones functional in daily life. The headphones also come with a carrying bag in case you want to use them outside the studio, which is likely since the headphones include another personal "mobile" cable.

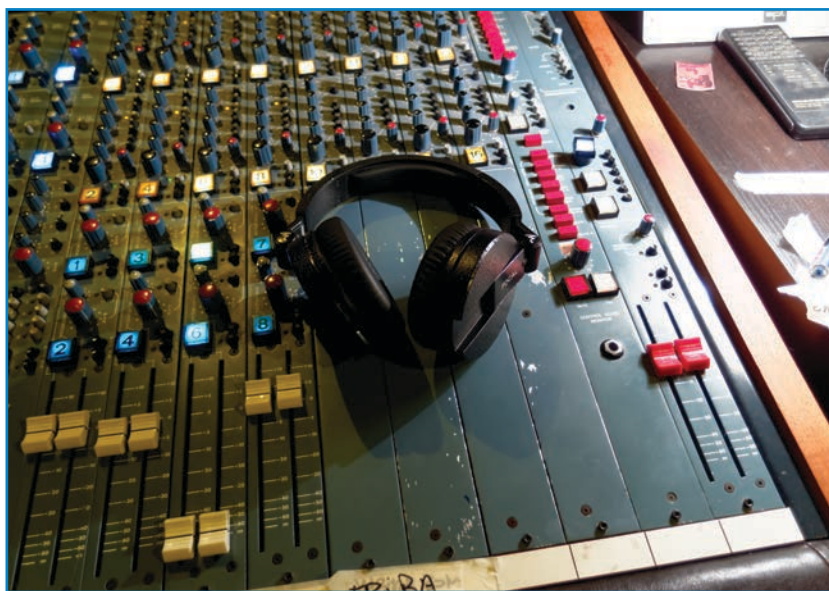
All the contents included with the Spirit Professional headphones are well made, with tremendous attention to detail that provides a high-quality feel to the product. Even though this is a professional product, it feels like a premium one.

The Focal Spirit Professional headphones have a stylish, modern look even though the all-black design makes it a very discrete, sedate pair of headphones in contrast with the two other models in the Spirit line. The only non-black elements are the Focal logo and name, which are embedded on the headphones in white. The reason these headphones aren't as ornate as most hi-fi headphones, including the Focal Spirit Classic, is because they were designed to withstand the abuse that recording studio routines usually imply. They also have a textured finish that is said to be shock-and-scratch resistant. Only time will tell if the finish on these headphones is as good as it is advertised, but they do look robust.

The handling feels very solid and the build quality is very good. We are aware that Focal cooperates with specialized manufacturers for specific components and uses external manufacturing facilities when it needs to be competitive. This enabled Focal to bring these headphones to the market at very competitive prices, in direct comparison with similar models (e.g., the Ultrasone Pro Series, using the same driver choices).

The Spirit Professional is actually one of the few products Focal isn't manufacturing in France. Yet we still are confident that they should stand the test of time and the daily recording studio use.

The Spirit Professional headphones feature a mylar/titanium dome in their transducers, which is a key element in their performance. These drivers use a mylar and titanium alloy to produce a thin and extremely light cone that's also very stiff and rigid. In theory, it's the same principle achieved with the beryllium tweeter, only with a different application. Combined with a strong neodymium magnet, these



The Spirit Professional headphones' closed-back circumaural design was developed for professionals.

40-mm mylar/titanium matched transducers are marketed as being very dynamic transducers with an extended frequency response.

The headphones are also touted to reproduce any audio source in great detail. The headphones are specified with a low 32- Ω impedance, which, along with a 102-dB SPL (1 mW at 1 kHz) sensitivity means they should provide enough sound pressure for most users regardless of the amplifier used. That also means the headphones will pair nicely with almost any battery-operated device (e.g., a laptop or smartphone).

The drivers were also designed to produce very



The headphones use memory foam on the ear cushions and in the headband to ensure a comfortable fit even when listening for long periods of time. A high-quality OFC corded cable is included for the best audio quality and a shorter straight cable with remote control cable is included for personal use with smartphones and laptops.



Designed to withstand the rough life in the studio, the Spirit Professional headphones feature a shock and scratch resistant textured finish.

About the Author

Miguel Marques is a full-time mastering engineer who works in his own mastering studio in the north of Portugal. After earning a bachelor's degree in Music Production and Technologies, Miguel worked in commercial recording studios as a recording engineer. He has also written several technical reviews and articles for pro audio magazines. He recently finished his first book about audio engineering, which was released in Portuguese-speaking countries.

low distortion numbers, which according to the brand will help prevent ear fatigue in professionals who may use them for extended time periods. To also ensure the comfort of these headphones over time, the Spirit Professional contains memory foam in the ear cushions and in the headbands.

The headphones are closed-back circumaural headphones, which obviously presents a compromise on sound quality. Closed-back designs provide sound to the user without letting in exterior sound and without letting out the inside sound, which is a mandatory feature for recording music. Because of that, closed-back headphones typically have an inaccurate and exaggerated low-end response and they're usually not detailed on the highs. With that said, Focal said thanks to a perfectly adjusted acoustical load on the transducers, the Spirit Professional headphones behave similar to an open-back pair of headphones. According to the brand, users should expect an articulated and detailed bass response.



Care has been taken when designing the box for the Spirit Professional headphones. Inside the box a lot of foam protects everything. Separate compartments hold the manual and the two supplied cables.

In Use

The Focal Spirit Professional headphones are very comfortable to wear. They are large enough to cover most users' ears and yet they aren't too bulky to feel uncomfortable. The headphones also aren't heavy as far as professional closed-back headphones go, which is a big plus. The memory foam on the headband and in the ear cushions is another big advantage. It enables the headphones to sit tight on the head without hurting or fatiguing the user.

We used the Spirit Professional headphones extensively during this review and never found them to be heavy or tiring. However, headphone comfort is subjective. We can only share our own experiences. Nor can we guarantee everyone will feel comfortable using the Spirit Professional headphones for extended time periods.

As we mentioned earlier, closed-back headphones are not usually known for their high fidelity. Their purpose is not to achieve the highest sound quality possible; that's a task typically assigned to open-back designs. The main goal with a closed-back headphone design is to assure a certain degree of sound isolation, which the Focal Spirit Professional headphones certainly achieves.

Even though no specification is provided regarding ambient noise isolation, the Focal Spirit Professional headphones seem to be as good as any professional closed-back models standard in the studio, except possibly a few models targeted for drummers that achieve even greater isolation.

When used as monitoring headphones in a recording session, we must confess that we're not fans of the supplied spiral cord. It seems to add some weight to the headphones and it may also get in the way of playing. We'd much prefer to see a longer straight cable to use when recording but since it's easy to swap the cable, there's really no problem with the bundled one. This is obviously a personal preference, and some professionals may enjoy the corded cable vs a straight one.

Despite being closed-back headphones, after a reasonable amount of usage, we were surprised to find that the Spirit Professional headphones sound great. They are probably the best closed-back headphones we've ever heard. Their level of

Manufacturer Specifications

Impedance: 32 Ω
Sensitivity: 102 dB SPL/1 mW at 1 kHz
THD: less than 0.3%/1 kHz/100 dB SPL
Frequency response: 5 Hz to 22 kHz
Drivers: 40-mm mylar/titanium
Net weight: 0.6 lb (280 g)



A soft carrying bag is included with the headphones.

detail, accuracy, and translation to the real world can only be compared with open-back designs. This is an unfair comparison, they serve different applications and most of the time different price ranges. However, it indicates their level of sound quality.

However, these are closed-back headphones. They are a bit heavy on the low end, even though the bass response is accurate and detailed. It's just slightly louder than you would expect, though it may actually be a feature instead of a flaw since it enables musicians to hear in greater detail what's happening in the low end when recording. Because of that, the Spirit Professional headphones don't come out as being bright headphones, even though they have just the right amount of top-end information to provide very detailed and fast highs.

Their amount of detail and accuracy makes them good headphones to do quality control and to check if a mix is well balanced when working in untreated rooms. The fact that they provide a decent amount of isolation yet still maintain clean, detailed sound should appeal to most professionals, because most closed-back headphones fail in that respect. And that's really what sets the Focal Spirit Professional headphones apart from its main competitors.

Quality Headphones

The Focal Spirit Professional headphones cost \$349, which is more than most closed-back headphones on the market but it is still less than most comparable European-made models. They are also better than most closed-back headphones on the market. The headphones are a safe investment for audio professionals who need a closed-back pair of headphones that serves many applications.

For the best audio performance, there are better options on the market, especially if open-back headphones are considered. However, open-back headphones are usually not an option in the studio. The Focal Spirit Professional headphones close the gap between open-back and closed-back designs. Focal created an excellent product with its Spirit Professional headphones, which will certainly find a place in a lot of professional studios and with sound engineers everywhere.

For more information, visit www.focal.com. 

7052PH

PHANTOM Powered
Measurement Mic System

NOW 4Hz to 25+kHz

<16dBA >135dBSPL

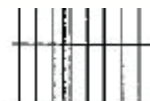
IEC61094-4

Compliant

1dB/div



**Anechoic
Free Field
Response
Included**



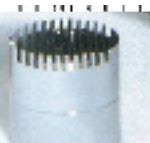
**Rugged
STAINLESS
Body**

**Operational
<-20 to >70C
Storage**

<-30 to >85C

**PHANTOM
<18Vdc
to
>56Vdc**

**Removable
Capsule
Titanium
Diaphragm**



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