

Furch Guitars Introduces Innovative Booster Soundport Feature for Enhanced Sound Projection and Resonance

Velké Němčice, Czech Republic – 14 October 2024 – Furch Guitars (Furch), one of the world's leading manufacturers of premium-quality all-solid-wood acoustic instruments, announces the release of the Booster Soundport, an innovative resonator designed to elevate the acoustic performance of Furch guitars. Positioned on the side of the guitar's body, it allows players to experience clearer, louder, and more resonant sound.

## **Pioneering Design for Improved Projection and Resonance**

The Booster Soundport feature transforms the playing experience by optimizing both **sound projection** and **body resonance**. By reducing internal air pressure within the guitar's body, it allows for the top soundboard to move more freely, producing a fuller and more dynamic sound with the same strumming effort. The soundport is strategically placed on the side of the guitar, allowing the player to hear their music as clearly and richly as the audience, enhancing the interaction between the musician and their instrument. *"The Booster Soundport offers a new dimension to the playing experience. It's not just about louder sound—it's about achieving a more responsive, resonant instrument that truly comes to life in your hands," says Petr Furch, CEO of Furch Guitars. <i>"Whether you're writing music, performing, or playing for yourself, the Booster Soundport ensures that the sound reaches your ears as clearly and richly as it does for your audience."* 

## Journey of Discovery and Development

The development of the Booster Soundport arose from Furch's ongoing exploration of acoustic guitar potential. Petr Furch explains: "It all began when I was testing some of our smaller-bodied guitars like the Little Jane or the OM shape, and noticed their exceptional output given their size. However, when I examined our dreadnoughts, despite their volume and rich low-end, I realized there was more untapped potential to unlock—not just in our guitars, but in all dreadnoughts in general." In their pursuit of enhancing acoustic performance, Furch's team experimented with bracing patterns, top board preload, and fine-tuning their voicing process. However, something was still missing. "The turning point came when we focused on soundhole parameters," says Pavel Hoffmann from Furch's R&D team. "There's a known relationship between an instrument's body volume and the soundhole's circumference, much like in violin making. Our smaller guitars have this ideal ratio, which inspired us to experiment with larger models too."





Petr Furch further elaborates: "As we gradually increased the size of the soundhole, we noticed acoustic improvements, but as fans of traditional acoustic guitar design, we were reluctant to compromise the guitar's structure and aesthetics with an oversized soundhole. To address this, we developed a soundport design featuring six parallel linear openings on the side of the guitar's body. The additional soundhole circumference is distributed across these six openings, preserving both the guitar's acoustic benefits and its structural integrity. Additionally, the soundport is reinforced with a fiberglass underlayer, providing superior structural stability and ensuring long-lasting durability."

## Acoustic Benefits and Enhanced Player Experience

The effectiveness of the Booster Soundport was validated through rigorous testing in Furch's anechoic chamber. Measurements taken before and after the installation of the soundport demonstrated a clear improvement in the guitar's performance. When comparing the frequency response of the guitar's soundboard with and without the Booster Soundport, the soundport was found to increase performance across the entire audible frequency spectrum (20-20,000 Hz) by an average of 1.4 dB, equivalent to approximately an 8% improvement. *"Specifically, the first mode showed a 6% increase, the second mode a 4% increase, the third mode a 14% increase, and the fourth mode a 24% increase,"* elaborates Hoffman.



Frequency response measurements have shown that the Booster Soundport increases performance across the entire audible frequency spectrum by an average of 1.4 dB, equivalent to approximately an 8% improvement. Photos and graphics available for download here.





The impact of the Booster Soundport was further demonstrated through a detailed analysis of frequency band performance. Measurements across the bass, low-mid, high-mid, and high frequencies revealed significant improvements. Furch's Pavel Hoffman elaborates: *"While the average performance in both the bass and high frequencies remained largely unchanged, the midrange frequencies saw a notable boost. Specifically, the low-mid range showed a 12% improvement, while the high-mid range exhibited a remarkable 24% increase."* These enhancements were calculated by analyzing the performance ratio and converting the results into percentage gains.



An analysis of frequency band performance showed a 12% improvement in the low mid range, and a 24% increase in the high mid range . Photos and graphics available for download here.

When Furch examined the guitar's directional sound projection with and without the Booster Soundport, a significant increase in acoustic performance was observed toward the guitar's headstock and to the left side, corresponding to the player's head position. Specifically, there was a 16% increase upward, an 8% increase to the left, and a 1% increase downward.







The analysis of the directional characteristic of the tone A, demonstrating a 16% increase upward, an 8% increase to the left, and a 1% increase downward. Photos and graphics available for download here.

"We've found that the Booster Soundport creates a more intimate connection between the player and their music by ensuring they hear every nuance clearer as they perform," notes Pavel Hoffmann. Petr Furch adds: "It brings that improved sound closer to your ears in a more accurate form. It's ideal for anyone who wants to get the most out of their guitar, whether performing for an audience or playing for personal enjoyment."

The first Furch series to incorporate the Booster Soundport is the new **Blue Performance** range, an addition to the popular Blue series. This range consists of two models: the <u>Blue Performance</u> <u>Dc-EW</u>, featuring an Engelmann spruce top over black walnut back and sides, and the <u>Blue</u> <u>Performance Dc-EM</u>, which has African mahogany back and sides. Both models come standard with an **LR Baggs EAS-VTC** pickup with soundhole controls, and each includes a premium Furch gigbag. In addition, the upcoming **2024 Limited Edition Dc-LR** will also be equipped with the Booster Soundport resonator. The range of Furch models featuring the Booster Soundport is expected to expand in the near future.







Blue Performance Dc-EW, one of the first Furch models to feature the Booster Soundport Feature. Photos and graphics available for download here.



The upcoming 2024 Limited Edition Dc-LR will also be equipped with the Booster Soundport. Photos and graphics available for download here.







The Booster Soundport brings a significant increase in acoustic performance toward the guitar's headstock and to the left side, corresponding to the player's head position. Photos and graphics available for download here.

## **About Furch Guitars**

Founded in 1981, Furch Guitars (Furch) has worked its way up to become one of the world's leading manufacturers of all-solid-wood acoustic guitars. The company's production complex and head office are located in Velké Němčice in the municipality of Brno, Czech Republic. Furch instruments combine the company's extensive know-how in handcrafting acoustic guitars with state-of-the-art technologies, production processes, and proprietary innovations. Thanks to that, the company is able to bring to the market premium-quality musical instruments with outstanding acoustic properties and excellent design parameters. Covered by a three-year warranty, Furch guitars are sold in over 40 countries on five continents. Furch employs over 70 luthiers and craftsmen and makes in excess of 9,000 instruments annually. Furch guitars are the preferred choice of such artists as Al di Meola, Suzanne Vega, Per Gessle, Glen Hansard, and Calum Graham. For additional information, visit www.furchguitars.com.

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