

The use of duplexes in the new generation of PETROF grand pianos

The speaking length of the piano string is from the capo V bar or from the agraffe to a bridge pin. The string vibrates in this section in its fundamental frequency, which determines the tone or pitch. Along with the fundamental frequency, the string always emits additional higher harmonic partial tones, which influence the **tone colour or complexity**.

The tone or note, which sounds only in its fundamental frequency, is quite simple, clean, but feels colourless, inexpressive, lifeless and uninteresting. The tones produced by musical instruments comprised from basic tone and higher complex harmonic tones, which together with the fundamental tone, **makes it rich, and more importantly, makes each note sing!**

Duplexes for the longer, richer and complex sound of the Petrof grand piano

In the range of the high middle and treble section, PETROF lets the string speaking length sound together with its front duplex in front of the capo bar and its rear duplex behind the bridge. We set these sections using **metal frets** (duplex frets, bridges); these string sections vibrate in harmonic frequencies, which **enrich the fundamental tones**.

This principle is used in all the **new generation of PETROF grand pianos** (see the photos below). This results in **longer, richer and more complex tones in the higher frequencies or notes**.

Generally the use of duplex scaling in pianos is demanded by the most discriminating pianists and it is one of the **features of advanced piano design employed by PETROF in our new grand piano line**.

