

## Loads of energy and a new tonality in the new FitalPRO '520' Loudspeakers.

**“Going above and beyond is always more difficult. But we’ve done it!”. Flavio Naggi FitalPRO.**

As in all respectable fairs, even the recent Frankfurt Musikmesse + Prolight Sound was an occasion to launch various new products.

We are talking about the participation, already a tradition, of FitalPRO- the professional department of the Italian brand specialized in loudspeakers, winners of many international The Frankfurt occasion allowed us to quickly spread the news regarding the launch of various products specifically dedicated to the professional market.

Among the various novelties present in this edition, here we have some details about the new woofers branded FitalPRO 10FH520, 12FH520 and 15FH520 (the latter was already presented at the NAMM show in January) that are able to handle a nominal power of 600 W.

These new models are inserted in the highly appreciated "Five Hundred" series and teamed with the already well-known models 10FH500, 12FH500 and 15FH500, based on a copper winding voice coil.

The new woofers are conceptually derived from the existing ones and are intended to complete the range; they are the result a direct market request and FitalPRO immediately replied according to their constant desire to improve - as always - the acoustic performance of their products.

Therefore, starting from the existing "500 Series", work was done in order to offer a product that has an even greater band extension, above all on the mid-high end.

Flavio Naggi, FitalPRO Overseas Sales Manager sustains some of the project "goals": "We wanted to complete the Five Hundred Series with other professional loudspeaker models appropriate for two or three way enclosures, to be more open, to be cut higher at the level of a low-pass filter and with an even better tone."

To improve the magnetic distortion ability in the middle frequencies and extend more in the higher

ones in, A "demodulation ring" was implemented on the trail of its adoption already made in other products and considered greatly successful.

To achieve these higher performing products, the structure of the magnetic assembly was completely redesigned to also allow for higher power handling and reduced power compression.

The new modulation ring allows to demodulate the inductance based on the excursion: basically, an aluminium ring short-circuits the "Eddy currents" that are counterproductive because they "oppose to" the regular movement of the voice coil. The aim is to reduce these currents, generated in the metal parts of the magnet assembly, to a minimum.

Unfortunately these negative influences can never be completely eliminated, however, the adoption of the demodulation ring allows for more control of the response on a declared frequency bandwidth to consequently eliminate part of the harmonic distortion generated.

The evident result is that the acoustic characteristics of the loudspeakers incorporating a demodulation ring are improved and the new models 10FH520, 12FH520 and 15FH520 benefit from notable advantages all around.

As already mentioned previously, the introduction of this technical improvement has practically forced the development of a new magnet assembly, which on this new FH520 series is completely renovated - even if from the outside it is similar to the one applied on the existing Five Hundred series.

The improvements are clear both on a measurement and listening level: second and third harmonic distortion reduction is achieved and, consequently, the loudspeaker reproduces a more natural sound; the tone changes, it becomes more detailed and improves its ability to recreate the scenic structure in the middle frequencies, in a range from 500 Hz and above, up to its natural break-up.

Flavio Naggi confirms: "The final sound of a loudspeaker depends on choices made in the design and manufacturing stage, all variables on the different components must be taken into account on the magnetic structure, on all materials used, on the pulp of the cone, on the treatments and types of bonding... Even the smallest details that can be ignored by many are, for us at FitalPRO, determining factors that influence the final tone. The innovative magnet assembly that we have



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introduced on these new woofers is tied to a dynamic correction that allows us to outclass competitor loudspeakers in performance."