



ASKOLL ENHANCES ITS ORIGINS WITH THE BOTTOM MOTOR FOR E-BIKE

Lightness, compactness and power for maximum performance

The history of Askoll is a history of innovation: since its inception in 1978, Askoll has distinguished itself as a pioneer in innovative technologies, developing, as the first on the market, synchronous technology applied to electric motors. Synchronous technology offers the opportunity to create electric motors that can save over 50% of energy compared to traditional ones. Maintaining the same engine power allows you to produce smaller motors and save on materials such as copper and iron, contributing to the sustainability of the environment.

Initially developed for the aquarium sector, this technology was subsequently extended to the world of household appliances, heating systems, and, after years of research, also to the world of urban mobility. Therefore, a return to origins that of Askoll, which with the launch of the **Askoll Drive C90A** bottom bracket motor wants to reaffirm its role as a leader in producing electric motors. The electric heart of the engine is the result of over 40 years of history, know-how, research and continuous innovation.

Askoll Drive C90A is a bottom bracket motor developed for high-end e-mountain bikes and is an optimal synthesis of market demands: lightness, compactness and performance. In terms of performance, the C90A motor has a nominal power of 250 W (the maximum is about 700 W) and delivers an optimized torque of 90 Nm between 60 and 80 pedal strokes per minute.

Askoll Drive C90A technical solutions are patented. Thanks to the 4-axis construction that allows the miniaturization of the engine, C90A is highly compact: light, weighs only 2.9 kg, despite being made with traditional materials, such as aluminium. This opens up possible scenarios for further weight reduction while maintaining unchanged performance, should the use of new materials to construct the crankcase, such as magnesium, be required.

As for the electronics, the Askoll Drive C90A engine has a control system equipped with an inertial platform that measures the level of thrust on the pedals, detects the context of use (ascent, descent, braking, acceleration) and adjusts the power delivered according to actual needs and the level of assistance selected.

Four levels of assistance support the cyclist from 50 to 400% of the force expressed (calculated using the torque sensor inside the inertial platform), in addition to the non-assisted mode and the walk assistance mode. On request, it will be possible to implement the start setting with three different running modes: agile, for less busy routes, sporty, off-road routes with some climbs and powerful for the hardcore MTB.

The engine communicates with the user through an intuitive interface that allows the selection of assistance levels. It is compatible with various displays and with a dedicated App, with which it interacts via Bluetooth signal.

Askoll Drive C90A, which will go into production at the end of 2021, will be the progenitor of a family of engines developed to meet the needs of every type of cyclist and thus cover a wider number of segments such as that of city e-bikes and trekking e-bike.



At the production level, Askoll Drive C90A, and more generally, the future range of bottom bracket motors, has all the features to develop important automations to implement very high-speed and highly automated production systems, the same as in the appliance sector, allows Askoll to have very low failure levels (0.001%).

For more information:

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