



BRUSHLESS MOTOR...WHY ?



Brushless DC motor (BLDC) is a synchronous electric motor which is powered by direct-current electricity (DC) and which has an electronically controlled commutation system, instead of a mechanical commutation system based on brushes. In such motors, current and torque, voltage and rpm are linearly related.

Brushless Motor vs Brush Motor

BLDC motors offer several advantages over brushed DC motors, including higher efficiency and reliability, reduced noise, longer lifetime (no brush erosion), elimination of ionizing sparks from the commutator, and overall reduction of electromagnetic interference (EMI).

With no windings on the rotor, they are not subjected to centrifugal forces, and because the electromagnets are attached to the casing, the electromagnets can be cooled by conduction, requiring no airflow inside the motor for cooling. This in turn means that the motor's internals can be entirely enclosed and protected from dirt or other foreign matter.

The maximum power that can be applied to a BLDC motor is exceptionally high, limited almost exclusively by heat, which can damage the magnets. BLDC motors require complex electronic speed controllers to run. Brushed DC motors can be regulated by a comparatively simple controller, such as a rheostat (variable resistance).

BLDC motors are often more efficient at converting electricity into mechanical power than brushed DC motors. This improvement is largely due to the absence of electrical and friction losses due to brushes.

BY DENTAL "HI TECH IMPLANT" use brushless technology motor producing a high-speed and safe surgery system