

# Slotless Brushless DC Motor Applications

Brushless DC motors have several advantages over their brushed counterparts. But, as the diameter decreases to allow for higher speeds, traditional stator windings around slotted laminations become impractical.

Manufacturers solved this issue by creating a slotless BLDC motor with coils that do not wind around stator slots. Instead, manufacturers replaced the usual wound lamination stack with a cylindrical air-wound stator. The result is a slotless BLDC motor that's better suited for high speed applications.

## ➤ BENEFITS OF A SLOTLESS BLDC MOTOR

- Very high speed operation
- Power-to-weight ratio allows for compact designs
- Fast changes in speed and direction
- Ease of winding customization
- Reduced vibrations
- Quiet operation
- Long lifespan



## ➤ SLOTLESS BLDC MOTOR APPLICATIONS

- Used for high-speed applications, such as dental drills
- Medical devices for angioplasty
- Medical imaging equipment
- Scanners
- Miniature pumps
- Testing and measuring equipment
- Laser beam reflector rotation
- Factory automation

