BEARINGS

Bearings are an essential part of a rotating machine. They play a vital role in the long life and quiet running of motors and fans. Great care should be taken selecting the optimum type and application to provide the best life expectancy and lowest noise.

A key advantage of the external rotor motor is the bearing system. A central tube within the centre allows the two bearing seats to be machine in the same process resulting in perfect alignment. This gives minimum stress on the bearings.

Cutaway showing one piece bearing tube

Traditional internal rotor motors have bearing end shields that are bolted on to the outer casting, and alignment of the two bearings is difficult that could lead to premature bearing failure, due to mechanical stress.

Small compact fans can use sleeve-bearing technology. This provides a low noise solution to ball bearings, however sleeve bearings can only be used reliably with the motor shaft in a horizontal position. The SINTEC sleeve bearing is a solution that provides an end thrust bearing allowing any motor shaft orientation and has a unique fluid pump action to pump the lubricant back up the shaft with a motor shaft in a vertical position. The SINTEC compact bearings are sintered at a high temperature resulting in a single- part bearing of a porous, durable material with a larger oil reservoir, high quality surface and extremely exact alignment of both bearing positions.

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