

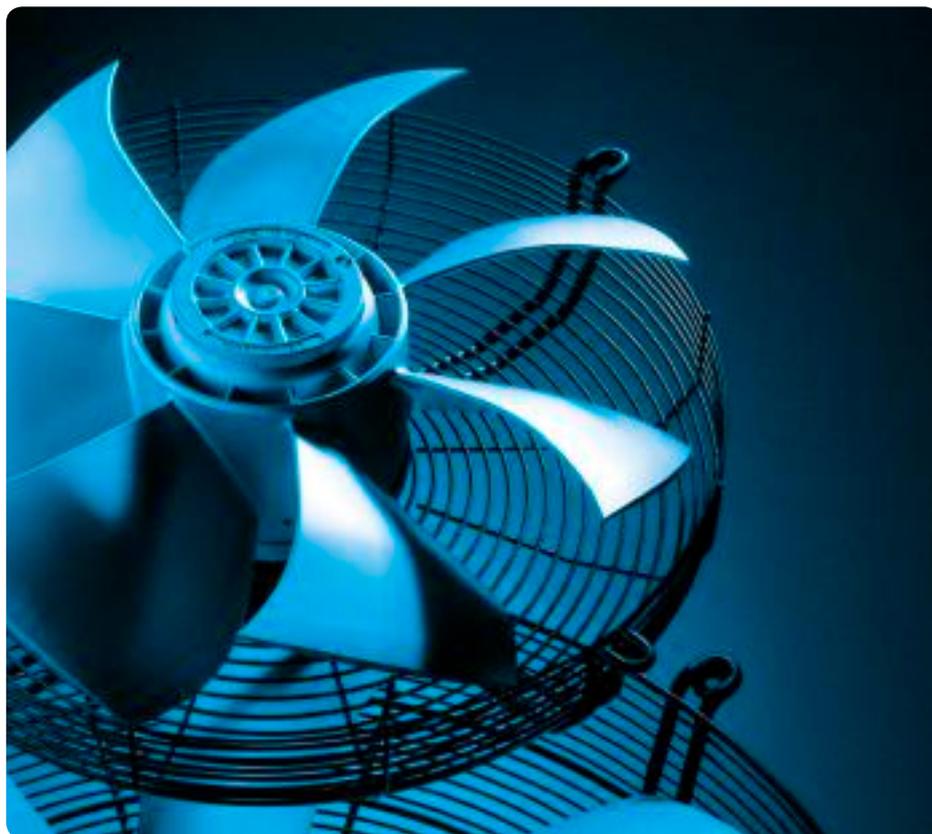
**Customer reference case**

Industrial electric motors

HVAC manufacturer

Variable speed drives

Hybrid bearings

*Ziehl-Abegg fan*

## Hybrid bearings provide longer service life for fans with variable frequency drives

### The challenge

Ziehl-Abegg AG is a manufacturer of high quality fans, motors and control systems. Their objective: increase the service life of their motors with variable frequency drives to provide additional customer value. To meet this objective, the company replaced the all-steel bearings in their fan motors with SKF® hybrid bearings. The result was better than expected and they were able to double and in some cases, triple the service life of their motors.

In addition to increased bearing service life, hybrid bearings were also able to reduce the noise level of the motors.

Fans and their drive units are used in a variety of applications like mobile and stationary refrigeration systems, and air handling/air conditioning systems. For these applications, there is a trend toward integrated motor drive units,

as they provide customer benefits in terms of high power output and reduced energy consumption. These units also enable more compact designs, reduced noise level and possibilities for multiple use. For this trend to be successful, however, the fan and the drive unit must have a high degree of reliability and require virtually no maintenance under a variety of operating conditions.

### Solution and value

As fan manufacturers like Ziehl-Abegg AG frequently have no control over the operating





conditions, the decision was made to use SKF hybrid bearings that are sealed and lubricated for life with an SKF high performance grease.

Field tests report that the SKF hybrid bearings currently in use, have doubled and in some cases tripled the service life of the motor, when compared to the all-steel bearing solution that was previously in place.

With sealed SKF hybrid bearings, customers can expect little or no maintenance of the motor throughout its life.

#### Operating data

Power: 300 W  
Speed: 1 500 r/min  
Bearings: 2 × 6001-2RSLTN9/HC5C3WT

#### Customer advantages

- ✓ Decreased maintenance
- ✓ High reliability
- ✓ Low noise levels
- ✓ Long bearing service life
- ✓ Compatible with frequency converters

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