

# FAN INDUSTRY

**KYK<sup>®</sup>**  
BEARINGS  
KYK CORPORATION LTD., OSAKA, JAPAN



KYK Corporation Ltd. Osaka, Japan

# CEILING FAN



Total Number of ceiling fans produced annually :	200+ million units
Total numbers of bearings used annually :	400+ Million Pcs
Average annual growth rate is about :	3%
Percentage Share of bearings in manufacturing cost:	Approx. 7%~12 %



# PRODUCTION & ENERGY STATISTICS



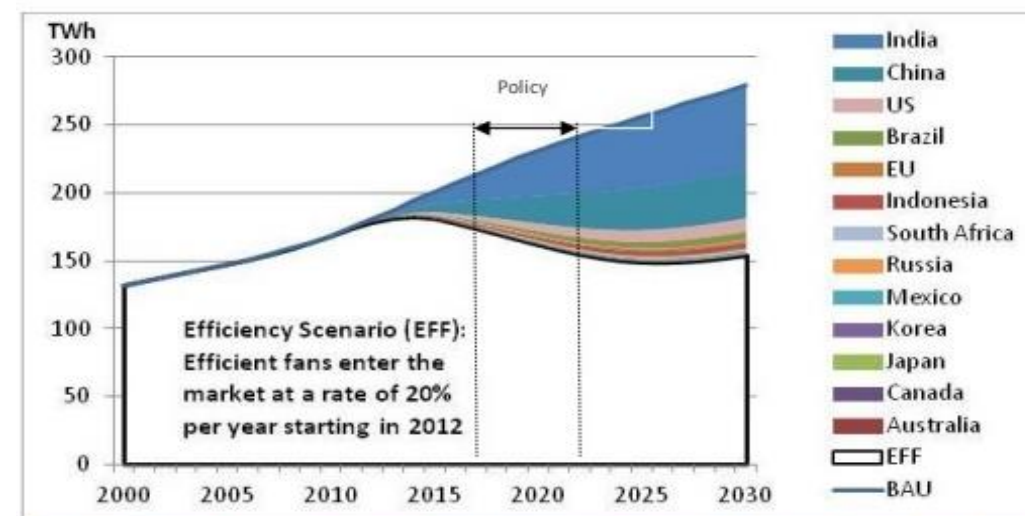
Sales forecast for 2012, 2030 and annual projected growth rate

	2012	2030	Annual Growth Rate
	Million Devices	Million Devices	%
Australia	1.6	2.0	1.26%
Brazil	10.2	14.5	1.95%
Canada	2.7	3.5	1.32%
China	77.3	94.2	1.10%
EU	28.2	31.4	0.59%
India	38.0	59.5	2.53%
Indonesia	4.8	6.8	2.00%
Japan	7.6	7.7	0.05%
Korea	3.4	4.2	1.13%
Mexico	3.1	3.4	0.66%
Russia	9.2	8.7	-0.31%
South Africa	1.3	1.4	0.60%
U.S.	20.1	25.8	1.41%
Total	207.5	263.2	1.33%

Note: The negative growth in Russia is a result of a decrease in population.

The Indian Sub-Continent expects to see the maximum growth in Fan Usage in the next 20 years.

- India
- Pakistan
- Bangladesh



Potential electricity savings resulting from introduction of efficient fans, 2000-2030



- The Energy Efficiency of Fans is increasing at a very fast rate across the globe, thereby reducing Electricity Expenses.

# THE BEARINGS & FAN MARRIAGE



- Ball Bearings are considered to be the best option for fans.
- Under normal operating conditions you can expect 90% of the properly selected and mounted bearings to operate for an average of 8 years.
- Ball bearings have the highest temperature ratings (-70C ~ +80C dependent on lubricant).
- Ceiling fan Normal RPMs will be 20 to 300 at different speed stages.



## Normally two bearings are used in the ceiling fans as a pair

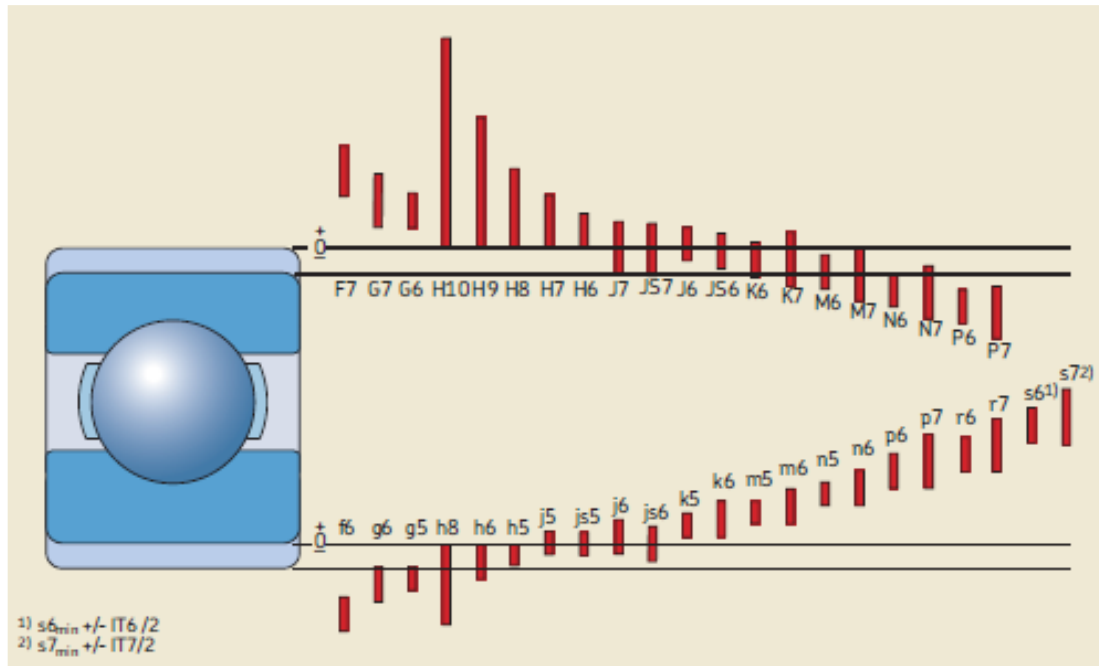
- Some region 6201ZZ & 6202ZZ used
- Some region 6202ZZ & 6203ZZ used

# BEARING FITMENT



One of the most important aspect to be followed during the process of bearing assembly are:

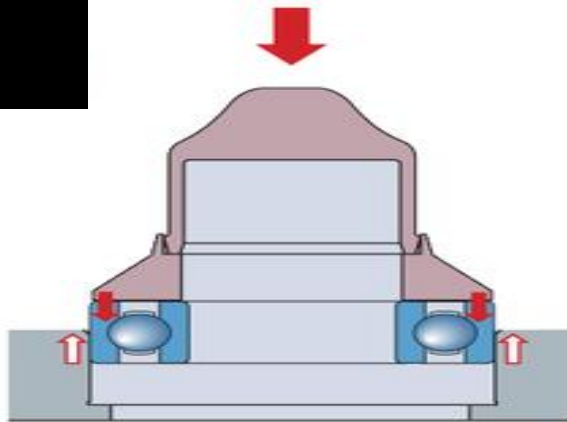
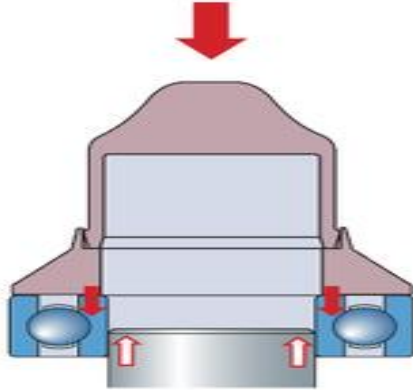
- Bearing fits
- Mounting of bearings



In the Ceiling Fan, the shaft is stationary and the housing is rotatory.

It is suggested to have a transition fit for the shaft k6 (k5) and tight fit for the housing M7 (M6).

# MOUNTING METHOD – For Extended Bearing Life



Performance, precision and service life heavily depend on whether bearings are mounted correctly.

- When applying force to bearings, always do so evenly and in parallel with shaft. Do not apply force when the bearing is at an angle, or the bearing would be damaged.
- If a tool like a hammer is used to mount the bearings on the shaft, a jig should be employed as shown in photo to ensure that force is applied evenly in a straight line. It is also advisable to use a plastic hammer or the like to minimize the impact on the bearing.
- If the bearing is fitted wrongly in the shaft, it will make noise, damage the bearings and spoil the fan.

# WHY CHOOSE KYK BEARINGS



KYK Bearings has specialty in the manufacturing of high quality ball bearings for ceiling fans.

**Some features of KYK ball bearings are:**

1. Z3V3 Quality bearings for low noise & low Vibration.
2. Energy efficient bearings suitable for 5 star rating.
3. V type groove on inner and outer ring for retaining grease at high speed and temperature.
4. Kyodo Yushi Raremax Grease
  - Suitable grease can be used as per customer request

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## BEARINGS

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# ABOUT US



**KYK Corporation Ltd.** (Formerly: Yamakai Bearing Ltd) is one of the oldest Japanese Manufacturers of ball and roller bearings, established in 1952, in Osaka, Japan.

Our bearings are supplied to more than 50 countries worldwide and approved in a wide variety of engineering industries.

KYK Bearings cater to the growing premium quality requirement of the market. Strict adherence to Japanese Precision and Quality Standards make KYK the preferred choice of product.

# GULF WORLDWIDE BEARINGS FZE

Official Distribution Partner for KYK Bearings



Precision Japanese Technology, Since 1953

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