Peer®
Trusted Difference at Every Turn

BEARING SOLUTIONS FOR THE HVAC INDUSTRY

Full line of agricultural, radial, mounted unit ball bearings and tapered roller bearings

Valued bearing solutions for agricultural (including lawn & garden), electrical, fluid (including HVAC), industrial transmission, material handling (including baggage handling) and off-highway applications

Global application engineering support

TS 16949 certified manufacturing facilities

Dedicated Research and Development center

Testing capabilities include: fatigue life, noise/vibration, mud slurry and salt spray testing

Flexible manufacturing to allow for low to high volume production

Customer service excellence
Commercial and industrial fans have a wide range of uses throughout many diverse industries. From supplying conditioned air to a quiet school room, removing waste heat from a sensitive data center, or exhausting air from a busy commercial kitchen; the reliability and performance of fans and blowers are directly dependent on the quality and design of the bearings. PEER is a leader in innovative bearing solutions for the HVAC industry and offers a standard line of high-performance air handling mounted ball bearing units.

PEER Air Handling units are guaranteed to have the following valued features:

100% testing of alignment torque
Bearings and housings are individually matched to achieve an air handling fit. A unique set of tolerances ensure ease of alignment and prevent bearing pre-load when mounted onto lightweight frames.

100% noise tested to Electric Motor Quality (EMQ) standards
PEER Air Handling bearings are manufactured to PEER’s strict EMQ noise and vibration standards. Each bearing must pass through vibration testing before achieving the “Air Handling” label.

Premium lubricant
PEER Air Handling products are delivered with premium polyurea thickened grease that is optimized for demanding, high-speed, and noise-sensitive environments over a large temperature range.

Wide inner ring
Bearings with wide inner rings are available and enable more ring-to-shaft contact to minimize shaft misalignment to lower vibration and increase bearing service life.

Proven Reliability
Efficient Assembly
Quiet Performance

Source Qualification Report
In an independent test, PEER Air Handling products provided greater manufacturing precision of the internal raceways and balls when compared to leading competitors. This attention to detail during manufacturing is evident in the noise testing results:

PEER achieved best-in-test noise vibration/noise results.

Napoleon Engineering Services (NES)
The PEER Approach

PEER Application Engineers (AE) utilize performance prediction tools to analyze the application as part of the bearing selection process.

“From start to finish PEER delivered in every aspect and manner expected of them and more. Technical design, production, and implementation were all perfect.”

Jacque Chesser, Product Design Engineer
Trane - Lynn Haven, FL
## Features and Benefits

<table>
<thead>
<tr>
<th>Insert Type</th>
<th>Feature</th>
<th>Ease of Mounting</th>
<th>Shaft Lock Reliability</th>
<th>Vibration &amp; Noise</th>
<th>Comments</th>
</tr>
</thead>
</table>
|             | Adapter Sleeve   | ++               | ++++                   | ++++              | • Best shaft lock reliability  
• Low vibration performance  
• More complex to mount      |
|             | GRIP-IT™ Plus    | ++++             | +++                    | ++++              | • Provides best balance between ease of mounting and lock reliability  
• Low vibration performance  
• Ease of mounting          |
|             | GRIP-IT™         | +++              | +++                    | ++++              | • Best balance of shaft lock reliability  
• Low vibration performance |
|             | Set Screw        | +++              | ++++                   | +++               | • Good basic performance for reversing applications  
• May induce vibration in high speed applications |
|             | Eccentric Lock Collar | +++              | ++++                   | ++                | • Good basic performance for non-reversing applications  
• May induce vibration in high speed applications |
**Set Screw and Eccentric Lock Collar**

Set screw and eccentric lock collar are the standard locking solutions in air handling applications. Available as relubricatable or non-relubricatable units with solid foot, high-grade cast iron housings for improved mounting stability.

**Set Screw:**
- Bi-directional applications
- 62˚ set screw angle provides 16% greater holding power between the bearing and shaft compared to 120˚ set screw angle designs*

**Eccentric Lock Collar:**
- Single direction applications
- Collar designed to tighten during operation

* Based on PEER experience and testing. Individual results may vary depending on shaft material, shaft hardness, and other factors.

**Shaft Holding Power of Two 1/4” Set Screws**

<table>
<thead>
<tr>
<th>Shaft Holding Power (lbf)</th>
<th>PEER 62˚ Angle</th>
<th>Competitor 120˚ Angle</th>
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<tbody>
<tr>
<td>1800</td>
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PEER’s patented GRIP-IT™ and GRIP-IT™ Plus solutions are designed to lock the bearing to the shaft concentrically to reduce vibration and noise.

Quick assembly with minimum effort
GRIP-IT™ Plus is the only concentric lock collar bearing on the market that is shipped from the factory with the lock collar secured to the bearing and ready to mount.

- Increases manufacturing productivity
- Reduces inventory and ordering complexity
- Eliminates replacement collar orders

Simplified equipment maintenance
The revolutionary GRIP-IT™ Plus Design prevents damage to the shaft unlike designs that rely on mechanical set screws.

- Reduces equipment maintenance time and cost
- Eliminates accidental bearing and shaft damage
- Allows effortless bearing removal and re-installation

Quiet running
Vibration leads to noise. The GRIP-IT™ Plus design reduces raceway deformation and bearing-to-shaft offset.

- Reduces vibration and noise
- Increases usable equipment speed

GRIP-IT™ Plus provides a greater than 50% improvement in raceway concentricity than a set screw lock after mounting.
Adapter Sleeve (UK Series)

The PEER UK series 360° concentric locking system provides maximum locking reliability and is used extensively in many demanding HVAC applications. High-speed, high-load, and noise sensitive applications all benefit from the advanced locking system.

**Reliable locking system**
- High axial load capacity compared to traditional locking devices

**Lower replacement/maintenance time and cost**
- No shaft burrs or marring eliminates shaft rework during disassembly and re-assembly
- Reduced fretting corrosion from through bore concentric contact

**Quiet running**
- High-speed capability with low vibration and noise
1. PEER HVAC Air Handling (AH) units are available in a full range of popular bore sizes and housing styles
2. Chart based on 205 bearing with 1” bore size
<table>
<thead>
<tr>
<th>GRIP-IT™</th>
<th>GRIP-IT™</th>
<th>Adapter Lock</th>
<th>Set Screw</th>
<th>Eccentric Lock Collar</th>
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<td>UCX</td>
<td>HCX</td>
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