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.

- High strength annutation ball
- Through hardened steel inner ring 1:12 taper bore
- Standard single lip, shielded style seal
- Through hardened steel outer ring with relubrication feature
- Precision grade balls
- Lock washer
- Tapered adapter sleeve 1:12 taper to match bearing bore

Reliable locking system
- High axial load capacity compared to traditional locking devices
- Lower replacement/maintenance time and cost
- No shaft burrs or marring distresses shaft work during disassembly and re-assembly
- Reduced fretting corrosion from the shaft through bore concentric contact

Quiet running
- High-speed capability with low vibration and noise

PEER® Bearing offers
- A wide range of agricultural, radial, mounted unit ball bearings, and tapered roller bearings
- Valued bearing solutions for agricultural, electrical, fluid, HVAC, industrial transmission, material handling and off-highway applications
- ISO/TS 16949 certified production facilities
- Dedicated Research and Development center
- Global application and customer support

<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
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<tbody>
<tr>
<td>Brazil</td>
<td>Avenida Marginal do Ribeirão dos Cristais, 200</td>
<td>+55 11 4448-8200</td>
<td><a href="mailto:fale.conosco@skf.com">fale.conosco@skf.com</a></td>
</tr>
<tr>
<td>China</td>
<td>9/F, Tower B, Central Towers #567 Langao Road</td>
<td>+86 21 61484816</td>
<td><a href="mailto:sales@peerchina.com">sales@peerchina.com</a></td>
</tr>
<tr>
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<td><a href="mailto:europe.info@peerbearing.com">europe.info@peerbearing.com</a></td>
</tr>
<tr>
<td>Italy</td>
<td>Via Martin Luther King, 38/2 Scala B</td>
<td>+39 051 6120405</td>
<td><a href="mailto:europe.info@peerbearing.com">europe.info@peerbearing.com</a></td>
</tr>
<tr>
<td>United States</td>
<td>2200 Norman Drive</td>
<td>+1 847 578 1000</td>
<td><a href="mailto:info@peerbearing.com">info@peerbearing.com</a></td>
</tr>
</tbody>
</table>

PEER Bearing Company
2200 Norman Drive
Waukegan, IL 60085
USA
**GRIP-IT™ and GRIP-IT™ Plus**

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.**

---

### 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

---

### CUSTOMER NEEDS

**Customer Needs** – Our industry-focused Application Engineers collaborate with your technical team to understand your requirements. We utilize performance prediction tools and your specific application information to identify the best bearing solution for your needs.

### APPLICATION

**Application** – Industry-focused Application Engineers will support you in the proper bearing selection. By understanding the application position and end-user expectation, our AE can match the appropriate PEER solution with your performance requirement.

### ENVIRONMENT

**Environment** – Determines which seal and lubricant package should be chosen:

- Typical HVAC applications rely on the PEER standard single lip seal and premium polyurea grease.
- High temperature, dirty or wet environments may require alternative lubricants or multi-lip seals.

### MOUNTING

**Mounting** – PEER offers HVAC industry-specific assembly and service training to customers to ensure accurate mounting; improving operation and production efficiency and lowering maintenance cost.

### APPLIED LOAD

**Applied Load** – Determines the basic bearing size and the best locking mechanism for your application.

- Eccentric lock collar: Single direction rotating shafts.
- Set screw: Bi-directional rotating shafts.
- GRIP-IT™: Bi-directional rotating shafts. Quickest assembly time.
- Adapter lock: Bi-directional rotating shafts. Highest holding power.
**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

---

**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  
- 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 |

---

*Based on PEER experience and testing. Individual results may vary depending on shaft material, shaft hardness, and other factors.
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**Set Screw:**
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**Eccentric Lock Collar:**
- Single direction applications
- Collar designed to tighten during operation

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

* Based on PEER experience and testing. Individual results may vary depending on shaft material, shaft hardness, and other factors.
From start to finish, PEER delivered in every aspect and manner expected of them and more. Technical design, production, and implementation were all perfect.

Customer Needs – Our industry-focused Application Engineers collaborate with your technical team to understand your requirements. We utilize performance prediction tools and your specific application information to identify the best bearing solution for your needs.

Application – Industry-focused Application Engineers will support you in the proper bearing selection. By understanding the application position and end-user expectation, our AE can match the appropriate PEER solution with your performance requirement.

Mounting – PEER offers HVAC industry-specific assembly and service training to customers to ensure accurate mounting; improving operation and production efficiency and lowering maintenance cost.

Environment – Determines which seal and lubricant package should be chosen:
- Typical HVAC applications rely on the PEER standard single lip seal and premium polyurea grease.
- High temperature, dirty or wet environments may require alternative lubricants or multi-lip seals.

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.
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Trane - Lynn Haven, FL

GRIP-IT™ and GRIP-IT™ Plus
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GRIP-IT™ Plus provides a greater than 50% improvement in raceway concentricity than a set screw lock after mounting.
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 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.

### Vibration/Noise Test
The data represents average vibration readings recorded during testing. This dimensionless value identifies the level of vibration on a scale of 0~5, where zero is the lowest vibration level and 5 is the highest vibration level. Bearings with values less than 0.50 are considered electric motor quality.

<table>
<thead>
<tr>
<th>PEER HVAC Air Handling (AH) Units</th>
<th>Standard Duty</th>
<th>Medium Duty</th>
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<tr>
<td><strong>Load Capacity</strong></td>
<td><strong>Locked Outer Diameter</strong></td>
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| PEER HVAC Solutions |

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/nurse results.

Acoustic Engineering Services (AES)

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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.

High strength annunciation ball

Through hardened steel inner ring
1:12 taper bore

Through hardened steel outer ring
with relubrication feature

Precision grade balls

Lock washer

Precision grade balls

Through hardened steel inner ring
1:12 taper bore

Threaded adapter sleeve
1:12 taper to match bearing bore

Tapered adapter sleeve

Valued bearing solutions for agricultural, electrical, fluid, HVAC, industrial transmission, material handling and off-highway applications

ISO/TS 16949 certified production facilities

Dedicated Research and Development center

Global application and customer support

Through hardened steel outer ring

Standard single lip, shroud style seal

BEARING SOLUTIONS FOR HVAC EQUIPMENT

PEER® Bearing offers

- A wide range of agricultural, radial, mounted unit ball bearings, and tapered roller bearings
- Valued bearing solutions for agricultural, electrical, fluid, HVAC, industrial transmission, material handling and off-highway applications
- ISO/TS 16949 certified production facilities
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USA
Phone: +1 847 578 1000
info@peerbearing.com
PEER HVAC Solutions

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 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

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.

Acoustic Engineering Services (AES)

Source Qualification Report

In a test of the Air Handling products, the noise testing results showed 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.

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Vibration/Noise Test

The data represents average vibration readings recorded during testing. This dimensionless value identifies the level of vibration on a scale of 0~5, where zero is the lowest vibration level and 5 is the highest vibration level. Bearings with values less than 0.50 are considered electric motor quality.

For more information on PEER’s air handling bearings and the tests they undergo, please see the related link for more information.
PEER HVAC Solutions

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.

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Acoustical Engineering Services (AES)

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 unit. T. Tests run.
Peer® Bearing offers:
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- High strength annulation ball
- Through hardened steel inner ring 1:12 taper bore
- Through hardened steel outer ring 1:12 taper to match bearing bore
- Precision grade balls
- High strength anti-rotation ball
- Through hardened steel outer ring with relubrication feature
- Standard single lip, shroud style seal
- Tapered adapter sleeve 1:12 taper
- Precision grade seals
- Lockwasher
- Through hardened steel inner ring
- Standard single lip, shroud style seal
- High strength anti-rotation ball
- Through hardened steel outer ring with relubrication feature

Reliable locking system:
- High axial load capacity compared to traditional locking devices
- Lower replacement/maintenance time and cost
- No shaft burrs or marking decreases shaft wear during disassembly and re-assembly
- Reduced fretting corrosion from the shaft through bore concentric contact

Quiet running:
- High-speed capability with low vibration and noise