



*Trusted Difference at Every Turn*



**BEARING SOLUTIONS FOR THE HVAC INDUSTRY**



## 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.

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*

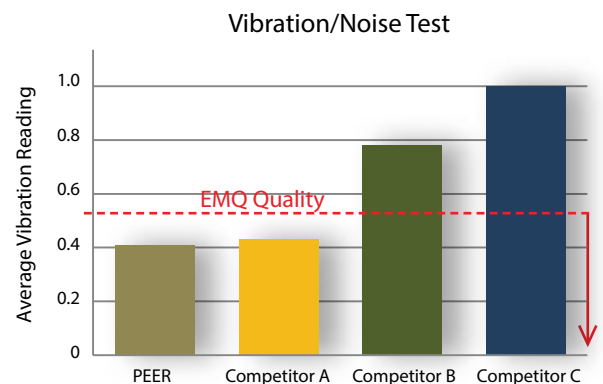


### Source Qualification Report

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 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.

## 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.



**FITTING SOLUTION**

# Features and Benefits

Insert Type	Feature	Ease of Mounting	Shaft Lock Reliability	Vibration & Noise	Comments
		Time to consistently lock bearing to the shaft	Resistance to relative movement between bearing and shaft	Concentricity of raceway-to-shaft after mounting	
<b>Adapter Sleeve</b>		++	+++++	++++	<ul style="list-style-type: none"> <li>• Best shaft lock reliability</li> <li>• Low vibration performance</li> <li>• More complex to mount</li> </ul>
<b>GRIP-IT™ Plus</b>		+++++	+++	++++	<ul style="list-style-type: none"> <li>• Provides best balance between ease of mounting and lock reliability</li> <li>• Low vibration performance</li> <li>• Ease of mounting</li> </ul>
<b>GRIP-IT™</b>		+++	+++	++++	<ul style="list-style-type: none"> <li>• Best balance of shaft lock reliability</li> <li>• Low vibration performance</li> </ul>
<b>Set Screw</b>		+++	++++	+++	<ul style="list-style-type: none"> <li>• Good basic performance for reversing applications</li> <li>• May induce vibration in high speed applications</li> </ul>
<b>Eccentric Lock Collar</b>		+++	++++	++	<ul style="list-style-type: none"> <li>• Good basic performance for non-reversing applications</li> <li>• May induce vibration in high speed applications</li> </ul>





## 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.

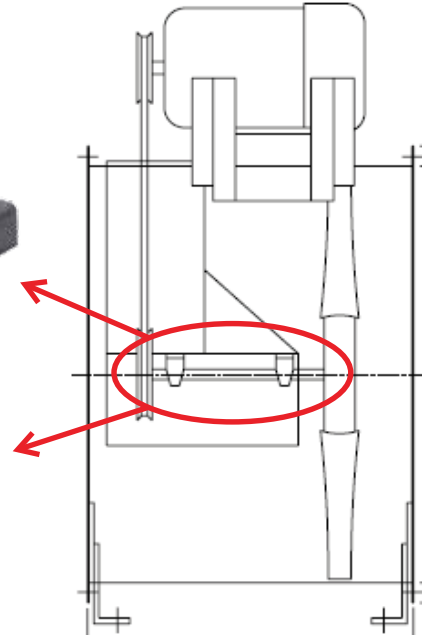
### Set Screw:

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

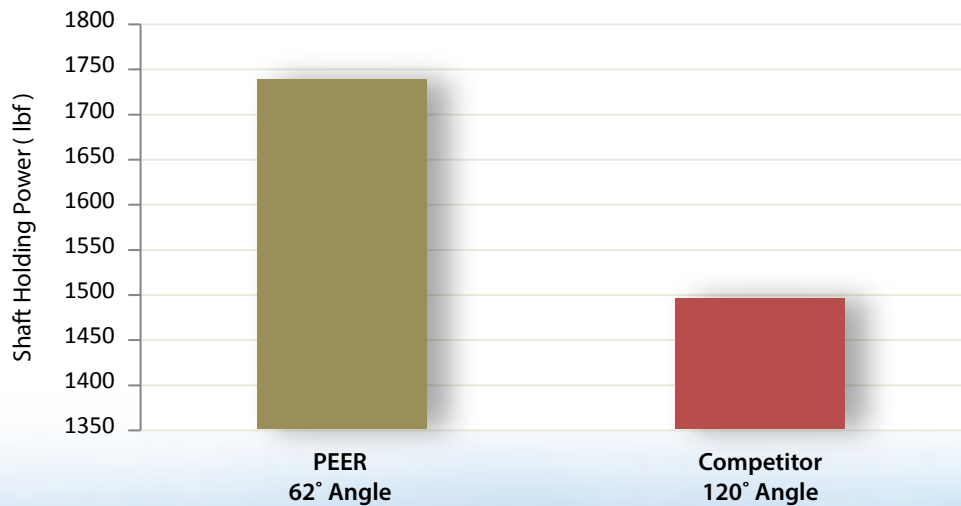


### Eccentric Lock Collar:

- Single direction applications
- Collar designed to tighten during operation



### 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.



## 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

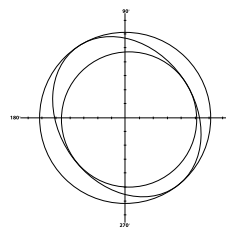


### Quiet running

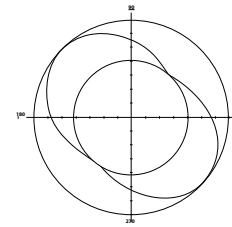
Vibration leads to noise. The GRIP-IT™ Plus design reduces raceway deformation and bearing-to-shaft offset.

- Reduces vibration and noise
- Increases usable equipment speed

GRIP-IT™ Plus



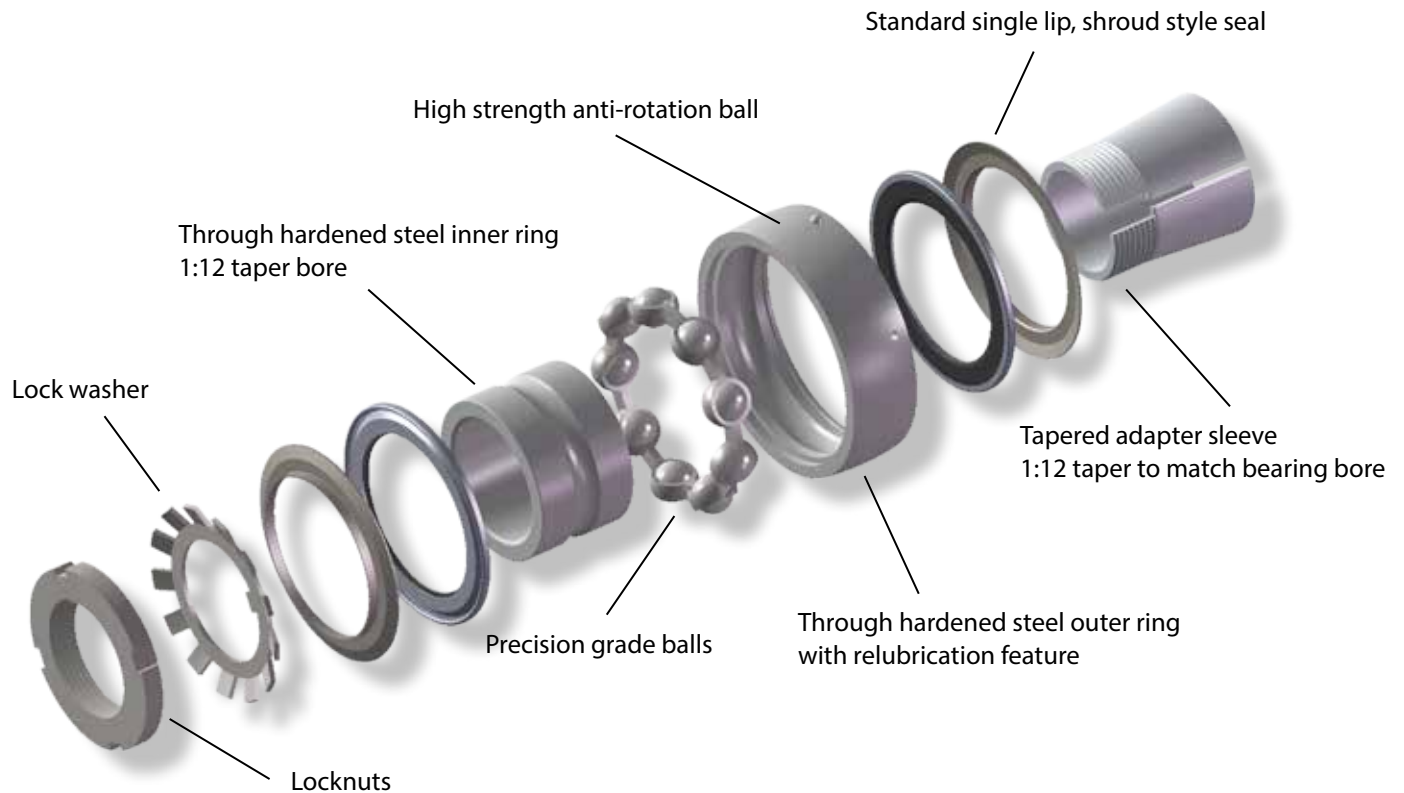
Set Screw



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

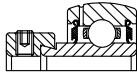
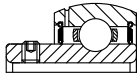
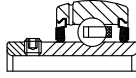
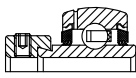
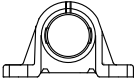
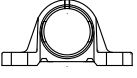

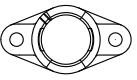
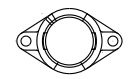

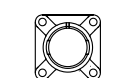
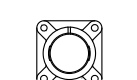
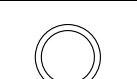
- No shaft burrs or marring eliminates shaft rework during disassembly and re-assembly
- Reduced fretting corrosion from the shaft through bore concentric contact

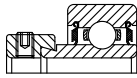
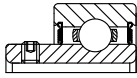
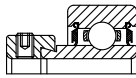
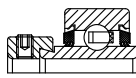
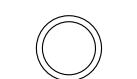
### Quiet running

- High-speed capability with low vibration and noise



# PEER HVAC Air Handling (AH) Units

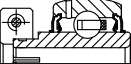
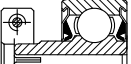
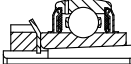
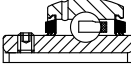
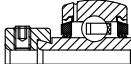
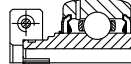
Load Capacity		Spherical Outer Diameter			
Locking Type		Standard Duty			
Locking Type		Eccentric Lock Collar	Set Screw	Set Screw	Eccentric Lock Collar
Part Number	Bearing Inserts	FH	FHS	UC	HC
					
Housing					
Pillow Block P		FHP205-16-AH	FHSP205-16-AH	UCP205-16-AH	HCP205-16-AH
Pillow Block Low Profile LP		FHLP205-16-AH	FHSLP205-16-AH	UCLP205-16-AH	HCLP205-16-AH
Pillow Block Stamped Steel PP		FHPMRZ205-16-AH	FHSPMRZ205-16-AH	UCPMRZ205-16-AH	—
2 Bolt Flange FT		FHFT205-16-AH	FHSFT205-16-AH	UCFT205-16-AH	—
2 Bolt Flange FTS		—	—	—	HCFTS205-16-AH
2 Bolt Flange FX		FHFX205-16-AH	FHSFX205-16-AH	—	—
4 Bolt Flange F		FHF205-16-AH	FHSF205-16-AH	UCF205-16-AH	—
4 Bolt Flange FS		—	—	—	HCFS205-16-AH
Rubber Cartridge		FHBR205-16-AH	FHSBR205-16-AH	—	—


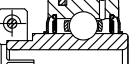
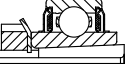
Load Capacity		Cylindrical Outer Diameter			
Locking Type		Standard Duty			
Locking Type		Eccentric Lock Collar	Set Screw	Eccentric Lock Collar	Eccentric Lock Collar
Part Number	Bearing Inserts	FHR	FHSR	FHRL	HCR
					
Housing					
Rubber Cartridge		RCSM-16L	RCSM-16S	LCR-16L	—

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



iameter

		Medium Duty			
GRIP-IT™	GRIP-IT™	Adapter Lock	Set Screw	Eccentric Lock Collar	GRIP-IT™
GR 	FGR 	UK 	UCX 	HCX 	GRX 
GRP205-16-AH	FGRP205-16-AH	UKP205-16-AH	UCPX05-16-AH	HCPX05-16-AH	GRPX05-16-AH
GRLP205-16-AH	FGRLP205-16-AH	UKLP205-16-AH	—	—	—
GRPMRZ205-16-AH	FGRPMRZ205-16-AH	—	—	—	—
GRFT205-16-AH	FGRFT205-16-AH	—	UCFTX05-16-AH	—	GRFTX05-16-AH
—	—	UKFTS205-16-AH	—	HCFTSX05-16-AH	—
—	FGRFX205-16-AH	—	—	—	—
GRF205-16-AH	FGRF205-16-AH	—	UCFX05-16-AH	—	GRFX05-16-AH
—	—	UKFS205-16-AH	—	HCFSX05-16-AH	—
—	FGRBR205-16-AH	—	—	—	—

GRIP-IT™	GRIP-IT™	Adapter Lock
GRR 	GER 	UKR 
RCSM-16GRR	—	—



## ABOUT PEER



- ▲ 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



*Trusted Difference at Every Turn*

### To place an order call...

#### **Brazil**

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