

**TIMKEN**

# TIMKEN<sup>®</sup> UC-Series Ball Bearing Housed Units

Designed for Optimized Performance

UC-Series Ball Bearing Housed Units  
12 mm to 90 mm shafts

Stronger.

Stronger. Commitment. Stronger. Value. Stronger. Worldwide. Stronger. Together. | Stronger. By Design.

# DISCUSSION TOPICS

Timken Housed Unit Solutions  
*Timken Offering Overview*

Timken UC-Series Ball Bearing Housed Units  
*A Look Inside*

- Product introduction
- Target industries and applications
- Product overview and features

How To Order BHU Units

- Part numbers
- Nomenclature
- Inventory and availability
- Interchanges

The Timken Difference



# TIMKEN ROLLER HOUSED UNIT FAMILY

Complete range of roller housed bearings

Spherical Roller Bearings



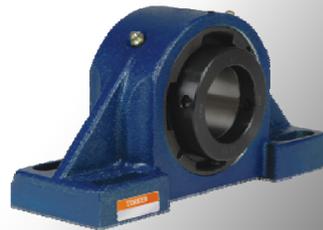
**Timken® SNT  
Plummer Block**

Shaft sizes from  
20mm to 400mm



**Timken® SAF  
Pillow Block**

Shaft sizes from  
1 3/8in. to 19 1/2in.



**Timken® SRB  
Solid Block**

Shaft sizes from  
1 7/16in. to 7in;  
40mm to 180mm

Tapered Roller Bearings



**Timken®  
Type E**

Shaft sizes from  
1 3/16 in. to 5 in;  
35mm to 125mm

Ball Bearings



**Timken® UCP  
Pillow Block**

Shaft sizes from  
1/2in. to 3 1/2in.;  
12mm to 90mm

# INTRODUCTION TO THE UC-SERIES BALL BEARING HOUSED UNITS

*For over 110 years, Timken innovations continue  
to keep the world in motion*

- We have introduced a wide range of **housed unit bearing solutions**, including split and solid block options for spherical and tapered roller bearings
- We now offer a **comprehensive range of standard series** Ball Bearing Housed Units in metric and imperial sizes
- Ball bearing housed units combine the bearing, housing, seals and set screw locking system into one device for **easy installation and optimized performance**

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# INTRODUCTION TO THE UC-SERIES BALL BEARING HOUSED UNITS

- Timken ball bearing housed units can be positioned on a straight shaft without shoulders or other backing features
- Industry leading set screw locking technology positioned at 120° angle that provides effective locking onto the shaft
- Designed for normal operation between -20° C and 100° C
- Quick and easy installation and removal
- Supplied with a grease fitting for quick and convenient re-lubrication

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# THE TIMKEN PROMISE

*The Timken brand must be earned*

- Manufactured to precise quality standards and rigorous requirements
- Validated by extensive in-house testing and backed by decades of product performance testing experience
- We apply our market and application knowledge to provide a high quality product line, engineered to meet our customers' needs

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# BALL BEARING HOUSED UNIT TARGET INDUSTRIES

Fans and  
Blowers

Materials  
Handling

Cement/  
Aggregate

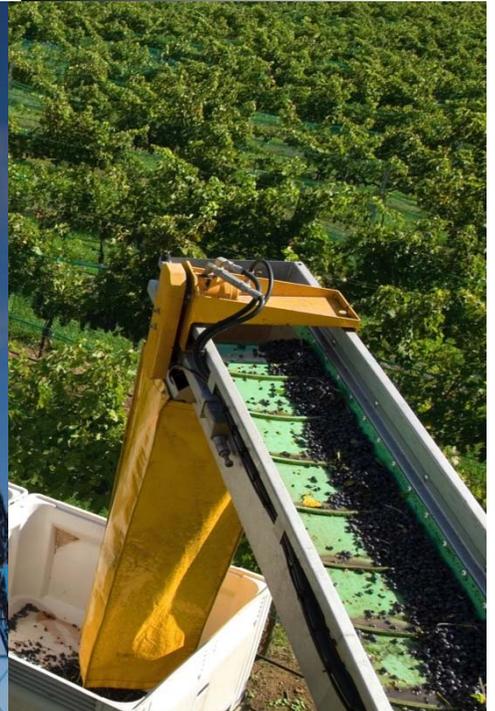
Industrial  
Equipment

Packaging

Food and  
Beverage

Waste  
Management

Agriculture



# TIMKEN UC-SERIES BALL BEARING HOUSED UNIT OVERVIEW

## Introducing a wide product range

UCP pillow block  
housed unit

12 to 90mm  
(½ to 3 ½ in.)



UCFC piloted round  
flanged unit

12 to 90mm  
(½ to 3 ½ in.)



UCF 4-Bolt flanged  
housed unit

12 to 90mm  
(½ to 3 ½ in.)



UCT take-up unit

12 to 85mm  
(½ to 3 ¼ in.)



UCFL 2-Bolt flanged  
housed unit

12 to 90mm  
(½ to 3 ½ in.)



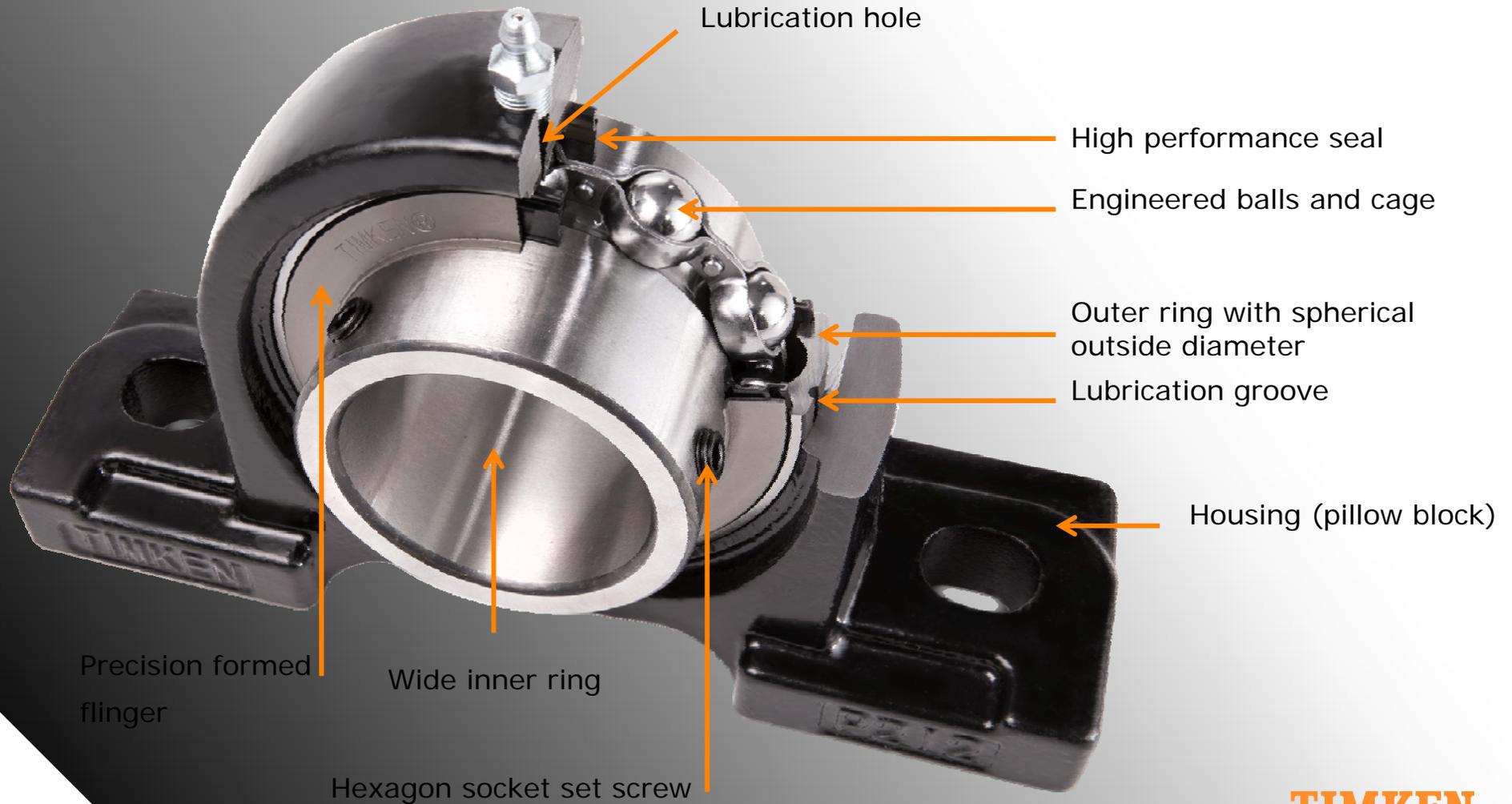
UC bearing insert

12 to 90mm  
(½ to 3 ½ in.)



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# A LOOK INSIDE TIMKEN® UC-SERIES BALL BEARING HOUSED UNITS



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# A LOOK INSIDE TIMKEN® UC-SERIES BALL BEARING HOUSED UNITS

## **Precision formed flinger**

- Provides the first level of protection against contamination

## **High-performance seal**

- Bonded nitrile rubber seal with an engineered interface to the inner ring

## **Hardened and ground seal land**

- Helps extend seal life by protecting against abrasive wear

## **Outer ring with spherical outside diameter**

- Precision fit between bearing and housing designed to improve bearing life

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# A LOOK INSIDE TIMKEN® UC-SERIES BALL BEARING HOUSED UNITS

## Lubrication delivery system

- Precision-machined lubrication groove and holes in the outer ring of the bearing

## Precision balls and cage

- Steel cage provides effective ball guidance and higher temperature service capability

## Wide inner ring

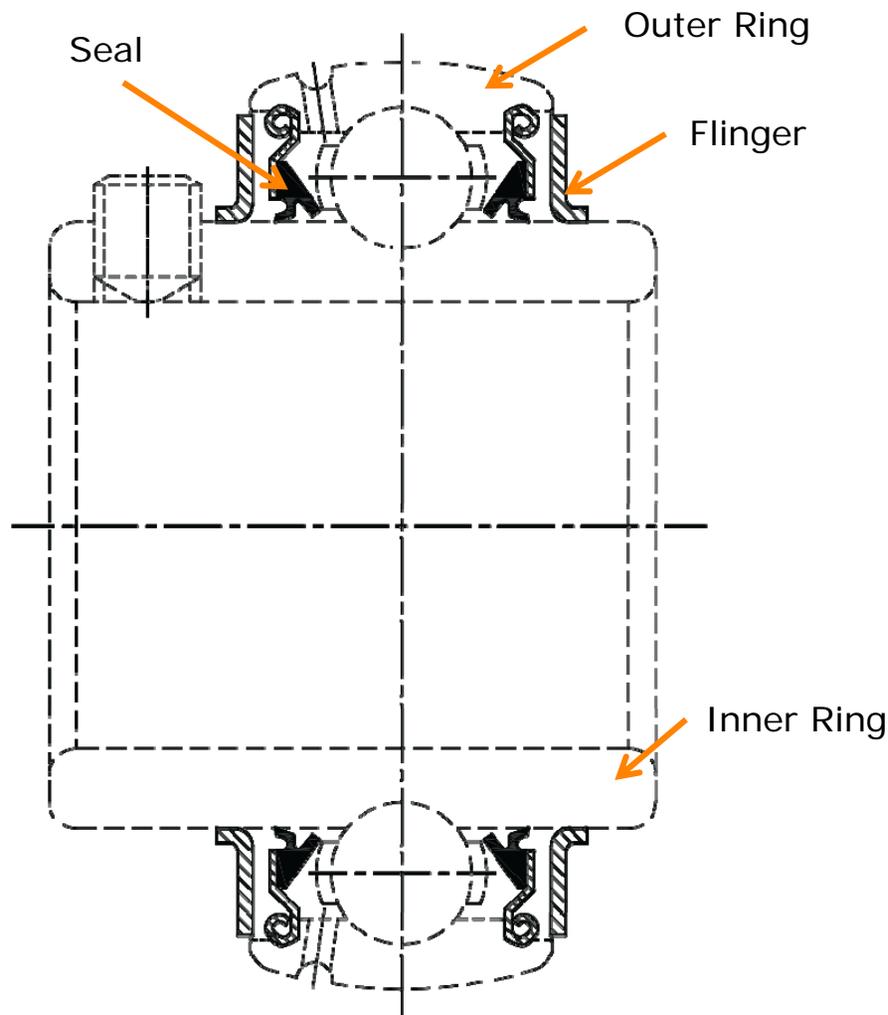
- Improved shaft support over narrow rings, reduces misalignment and helps improve bearing life

## Set screw angle

- 120° angle optimizes shaft engagement and minimizes inner ring distortion for a smoother-running bearing and longer life

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# A LOOK INSIDE TIMKEN® UC-SERIES BALL BEARING HOUSED UNITS



Sealing system protects the bearings of the UC-series against contamination from the outside and loss of lubrication on the inside. It is characterized by an efficient combination of a **seal** and a **flinger**.

The bonded nitrile rubber **seal** is installed to the outer ring of the bearing and performs two main tasks:

- Equipped with an inward facing lip that enables grease to flow back into the bearing, helping to improve lubrication performance and extend bearing life.
- Provides the second level of protection against contamination from the outside.

The **flinger** provides the first level of protection against contamination, such as moisture and dust. The flinger is installed to rotate with the inner ring of the bearing.

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# CUSTOMER BENEFITS

- **A wide range of ready-to-mount BHUs**
  - Interchangeable with many models in the market
  - Local in-stock availability
- **Supports increased equipment uptime and reduced maintenance cost**
  - Timken ball bearing housed units deliver strong performance and high reliability in many applications
- **Robust sealing performance**
  - Precision sealing with bonded seal design, including steel flinger
  - Helps keep contamination out and grease in
- **Global availability**
  - Global distribution network makes it easy to get Timken parts anywhere in the world fast

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# PACKAGING OVERVIEW

All UC-series products are packaged in polymer bags inside of Timken black and orange boxes and available in regional service centers.



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# PACKAGING OVERVIEW

Housed unit grease fittings are packaged separately in poly bags and included in the box with the housed unit.



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# PART NUMBERS IN STOCK – Q2 2014



**Family**

**Bearing Insert  
UC**

**Pillow Block  
UCP**

**4-Bolt Flange UCF**

**2-Bolt Flange UCFL**

**Round Flange UCFC**

**Take-up  
UCT**

201

UC201  
UC201-8

UCP201  
UCP201-8

UCFL201  
UCFL201-8

202

UC202  
203

UCP202  
UCP202-10

UCFL202  
UCFL202-10

203

UC203

UCP203

UCFL203

204

UC204  
UC204-12

UCP204  
UCP204-12

UCF204  
UCF204-12

UCFL204  
UCFL204-12

UCFC204

UCT204  
UCT204-12

205

UC205  
UC205-14  
UC205-16

UCP205  
UCP205-14  
UCP205-16

UCF205  
UCF205-14  
UCF205-16

UCFL205  
UCFL205-16

UCFC205

UCT205  
UCT205-14  
UCT205-16

206

UC206  
UC206-18  
UC206-19  
UC206-20

UCP206  
UCP206-18  
UCP206-19  
UCP206-20

UCF206  
UCF206-20

UCFL206  
UCFL206-20

UCFC206

UCT206  
UCT206-18  
UCT206-19  
UCT206-20

207

UC207  
UC207-20  
UC207-22  
UC207-23

UCP207  
UCP207-20  
UCP207-22  
UCP207-23

UCF207  
UCF207-20

UCFL207  
UCFL207-20

UCFC207

UCT207  
UCT207-20  
UCT207-22  
UCT207-23

208

UC208  
UC208-24

UCP209  
UCP209-28

UCF208  
UCF208-24

UCFL208  
UCFL208-24

UCFC208

UCT208  
UCT208-24

Q2 2014

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# PART NUMBERS IN STOCK – Q2 2014



Q2 2014

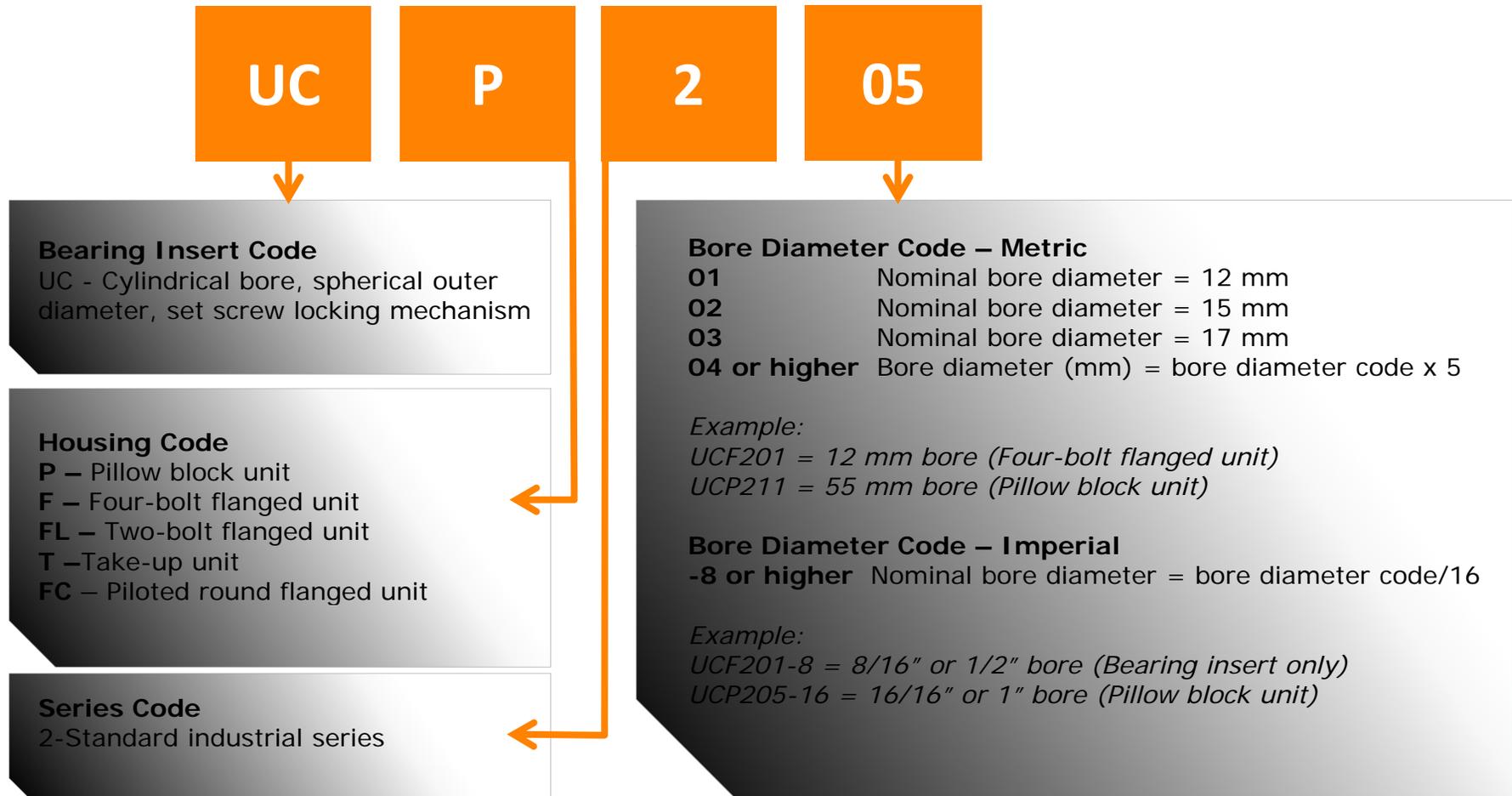
Late 2014 / 2015<sup>1</sup>

Family	Bearing Insert UC	Pillow Block UCP	4-Bolt Flange UCF	2-Bolt Flange UCFL	Round Flange UCFC	Take-up UCT
209	UC209	UCP209	UCF209	UCFL209	UCFC209	UCT209
	UC209-8	UCP209-28	UCF209-28			UCT209-28
210	UC210	UCP210	UCF210	UCFL210	UCFC210	UCT210
	UC210-31	UCP210-31	UCF210-31	UCFL-32		UCT210-31
	UC210-32	UCP210-32	UCF210-32			UCT210-32
211	UC211	UCP211	UCF211	UCFL211	UCFC211	UCT211
	UC211-32	UCP211-32	UCF211-32			UCT211-32
212	UC212	UCP212	UCF212	UCFL212	UCFC212	UCT212
	UC212-36	UCP212-36	UCF212-36			UCT212-36
	UC212-39	UCP212-39	UCF212-39			UCT212-39
213	UC213	UCP213	UCF213		UCFC213	UCT213
	UC213-40	UCP213-40	UCF213-40			UCT213-40
214	UC214	UCP214	UCF214		UCFC214	UCT214
215	UC215	UCP215	UCF215		UCFC215	UCT215
	UC215-48	UCP215-48	UCF215-48			UCT215-48
216	UC216	UCP216	UCF216		UCFC216	
217	UC217	UCP217	UCF217			
218	UC218	UCP218	UCF218			

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1. Additional part numbers will be added through 2015.

# NOMENCLATURE



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# INVENTORY AND AVAILABILITY

## Products stocked locally in your region

- Local in-stock availability assures the service levels customers expect for reduced downtime and inventory carrying costs

## Order via Timken on-line stores

- As with all of Timken's products, ball bearing housed units are available via our on-line stores
- Provides visibility to product details and accurate availability and lead times
- Makes ordering easy and quick

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# EASE OF ORDERING - INTERCHANGE FILE

Timken UC-Series Ball Bearing Housed Units are dimensionally interchangeable with products from key competitors for all key characteristics, including bolt center and center shaft line dimensions.

Timken has created comprehensive interchange files (excerpt below).

Bore size		Timken UC-Series Part No.	SKF Part No.	INA Part No.	NTN Part No.	FAG Part No.
mm	in.					
20		UCP204	SY 20 TF	RASEY20	UCP204D1	UCP204
	3/4	UCP204-12	SY 3/4 TF	RASEY3/4	UCP204-012D1	UCP204-12
25		UCP205	SY 25 TF	RASEY25	UCP205D1	UCP205
	7/8	UCP205-14	SY 7/8 TF	RASEY7/8	UCP205-014D1	UCP205-14
	15/16	UCP205-15	SY 15/16 TF	RASEY 15/16	UCP205-015D1	UCP205-15
	1	UCP205-16	SY 1. TF	RASEY1	UCP205-100D1	UCP205-16
30		UCP206	SY 30 TF	RASEY30	UCP206D1	UCP206
	1 1/8	UCP206-18	SY 1.1/8TF	RASEY1 1/8	UCP206-102D1	UCP206-18
	1 3/16	UCP206-19	SY 1.3/16 TF	RASEY 1-3/16	UCP206-103D1	UCP206-19
	1 1/4	UCP206-20	-	RASEY 1-1/4-206	UCP206-104D1	UCP206-20
35		UCP207	SY 35 TF	RASEY35	UCP207D1	UCP207
	1 1/4	UCP207-20	SY 1.1/4 TF	RASEY1 1/4	UCP207-104D1	UCP207-20
	1 5/16	UCP207-21	-	-	UCP207-105D1	UCP207-21
	1 3/8	UCP207-22	SY 1.3/8TF	RASEY1 3/8	UCP207-106D1	UCP207-22
	1 7/16	UCP207-23	SY 1.7/16 TF	RASEY 1-7/16	UCP207-107D1	UCP207-23
40		UCP208	SY 40 TF	RASEY40	UCP208D1	UCP208
	1 1/2	UCP208-24	SY 1.1/2 TF	RASEY1 1/2	UCP208-108D1	UCP208-24

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# THE TIMKEN DIFFERENCE

- **Sustainable value**
  - Investments made to offer one of widest housed bearing product lines in the world
  - Product breadth and options provide flexibility to configure housed units for optimal performance in your equipment
- **Customer engagement**
  - Global sales and service engineering teams deliver value through application know-how
  - A global distribution network makes it easy to get Timken anywhere in the world fast
  - Customer and technical support delivered with global consistency to strengthen your business

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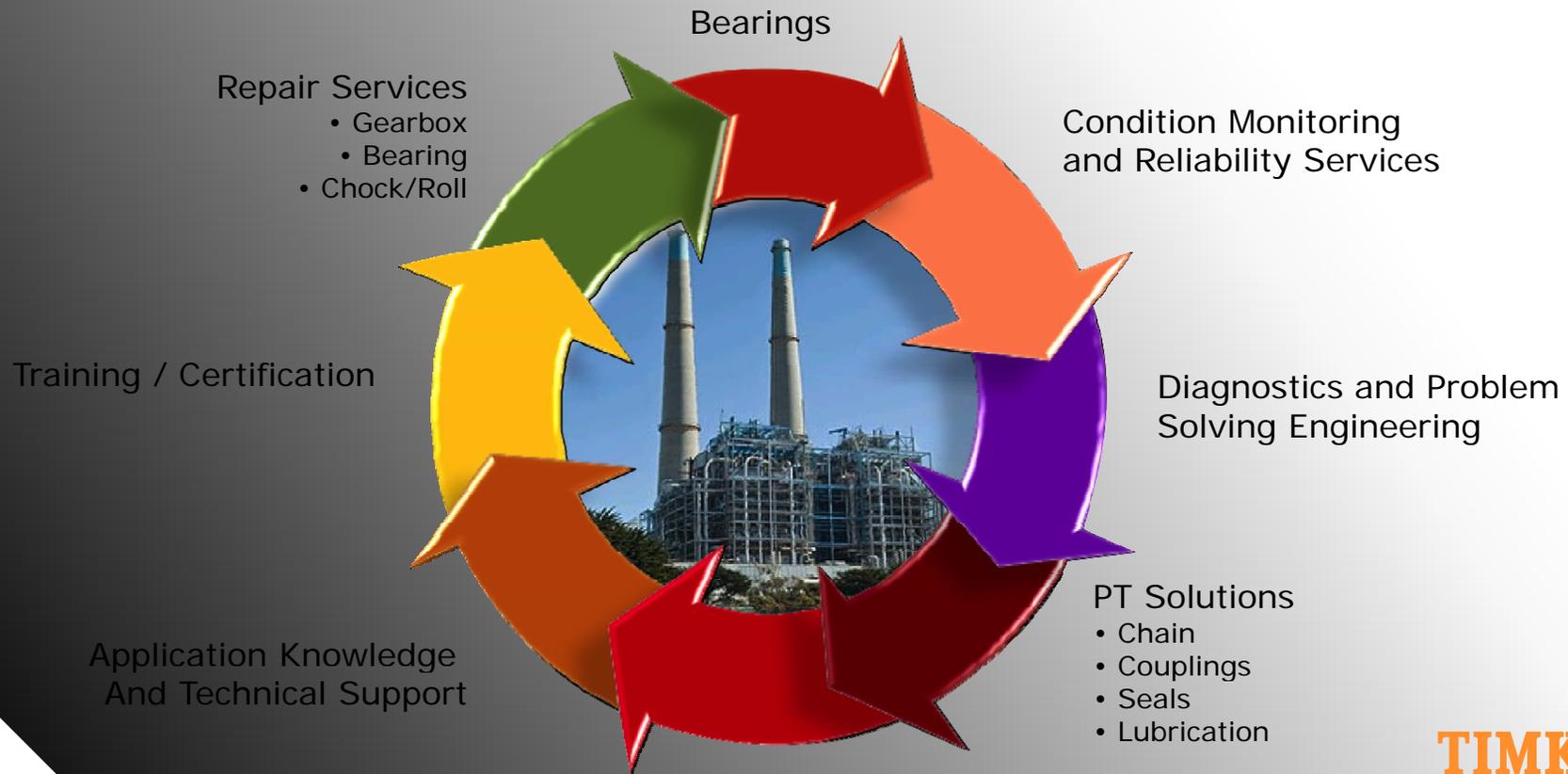
# THE TIMKEN DIFFERENCE

- **Know-how**
  - Comprehensive line of housed bearings deliver industry leading bearing performance
  - Utilize expertise in metallurgy, friction management and mechanical power transmission to ensure reliability and durability of products
- **Outstanding quality/performance**
  - High performance and excellent quality housed units

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# TIMKEN SERVICES AND CUSTOMER BENEFITS

Timken supports our customers' job sites with teams of service engineers available around the world. Our service engineers and technicians help our customers extend maintenance cycles and maximize uptime.



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# TIMKEN



# By Design.

Stronger. Commitment. Stronger. Value. Stronger. Worldwide. Stronger. Together. | Stronger. **By Design.**