



NUMBERING SYSTEM QUICK REFERENCE GUIDE

FEATURING NOMENCLATURE GUIDELINES FOR:

- MICRO BEARINGS
- RADIAL BALL BEARINGS
- ANGULAR CONTACT BALL BEARINGS
- SELF-ALIGNING BALL BEARINGS
- CYLINDRICAL ROLLER BEARINGS
- TAPERED ROLLER BEARINGS
- SPHERICAL ROLLER BEARINGS
- BALL AND ROLLER THRUST BEARINGS
- MOUNTED BEARING UNITS
- ULTRA-CLASS MOUNTED BEARING UNITS
- CORROSION RESISTANT BEARING UNITS
- SPHERICAL BEARING HOUSING UNITS
- PREFIX AND SUFFIX INTERCHANGE
- BEARING SERIES INTERCHANGE



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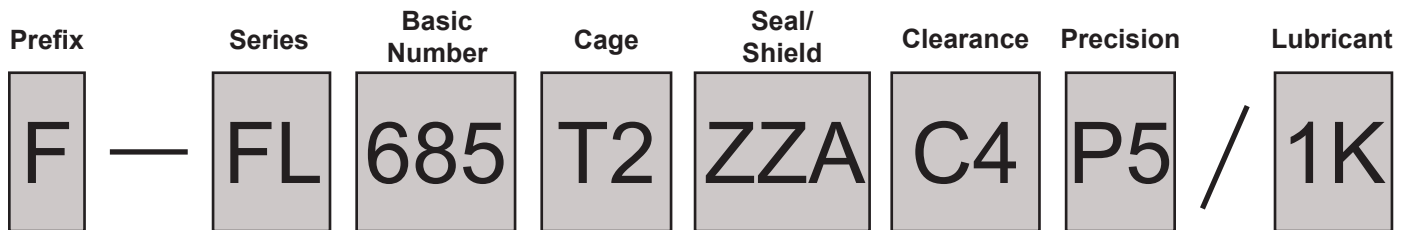
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Micro Bearing Numbering System



1. PREFIX

| | |
|------------|--|
| No Symbol: | High carbon chrome bearing steel (equivalent to AISI E52100) |
| F: | Martensitic stainless steel (equivalent to AISI 440C) |

2. SERIES

| | |
|---------|--|
| 67, 68: | Metric Series |
| 69, 60: | Metric Series |
| 62, 63: | Metric Series |
| R: | Inch Series |
| W: | Wider than standard width (sealed type) |
| WA: | Non- standard sizes |
| RA: | Wider than standard width of inch series (open and sealed types) |
| FL: | Flanged outer ring |
| FLA: | Flanged outer ring, provided non-standard flange dimensions |

3. CAGE

| | |
|------------|------------------------------|
| No symbol: | Pressed steel cage |
| J1: | Pressed stainless steel cage |
| T1: | Phenolic resin cage |
| T2: | Nylon cage |
| JR: | Pressed steel (riveted) |
| JS: | Pressed steel (spot welded) |
| JA: | Pressed steel (bent finger) |

4. SEAL OR SHIELD*

| | |
|------------|-------------------------------------|
| No symbol: | Open type |
| Z, ZZ: | Steel shield(s) |
| ZA, ZZA: | Removable steel shield(s) |
| ZA1, ZZA1: | Removable stainless steel shield(s) |
| Z1, ZZ1: | Stainless steel shield(s) |
| LB, LLB: | Non-contact rubber seal(s) |
| LU, LLU: | Contact rubber seal(s) |
| SA, SSA: | Non-contact nylon seal(s) |

*One letter signifies one shield or seal; two letters signifies two shields or seals

5. INTERNAL CLEARANCE

| | |
|------------|----------------------------------|
| No symbol: | Normal clearance |
| C2: | Clearance less than normal |
| C3: | Clearance greater than normal |
| C4: | Clearance greater than C3 |
| C2S: | Low group of C2 clearance |
| CNS: | Low group of normal clearance |
| CNM: | Medium group of normal clearance |
| CNL: | High group of normal clearance |
| C3S: | Low group of C3 clearance |
| C3M: | Medium group of C3 clearance |
| C3L: | High group of C3 clearance |

6. PRECISION

| | |
|------------|------------------------------------|
| No symbol: | ISO class 0 (equivalent to ABEC 1) |
| P6: | ISO class 6 (equivalent to ABEC 3) |
| P5: | ISO class 5 (equivalent to ABEC 5) |
| P4: | ISO class 4 (equivalent to ABEC 7) |
| P2: | ISO class 2 (equivalent to ABEC 9) |
| P5A: | ISO class 5A |
| P4A: | ISO class 4A |
| PS5: | NTN PS class 5 |
| PS4: | NTN PS class 4 |
| PX1: | Special Tolerance |

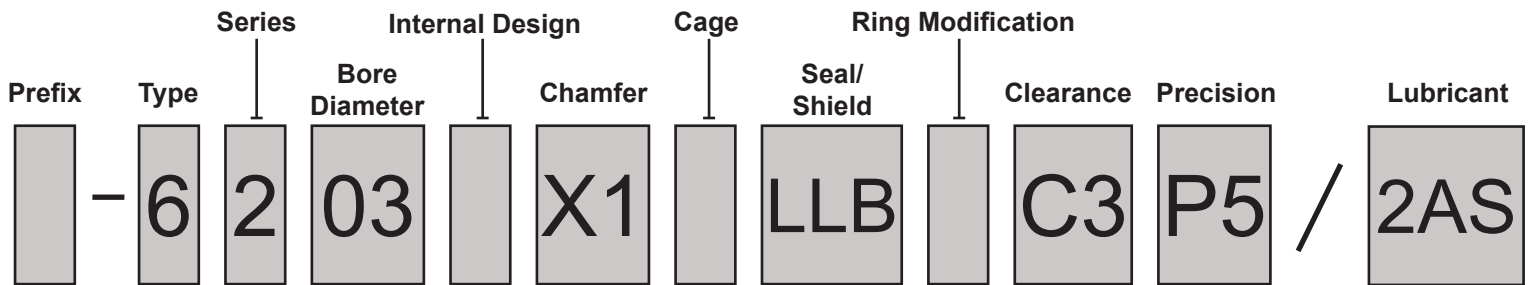
7. LUBRICANT

| | |
|-------|---------------------------------------|
| 1K: | Kyodo Yushi Multemp PS No. 2 |
| 2AS: | Shell Alvania 2 |
| 1E: | Exxon Andok C |
| 6K: | Kluber Isoflex Super LDS18 |
| 5C: | Chevron SRI2 |
| 5K: | Kyodo Yushi Multemp DRL |
| 1W: | Anderson Oil Windsor Lube L245X (oil) |
| L627: | Exxon Polyrex EM |

8. SPECIAL SPECIFICATION

| | |
|----------|---|
| V1...Vx: | Special features from 1 onward (V1, V2,...) |
|----------|---|

Radial Ball Bearing Numbering System



1. PREFIX

| | |
|------------|---------------------------------------|
| No Prefix: | Heat stabilized up to 250 °F (120 °C) |
| TS2: | Heat stabilized up to 320 °F (160 °C) |
| TS3: | Heat stabilized up to 390 °F (200 °C) |
| TS4: | Heat stabilized up to 480 °F (250 °C) |
| 5S: | Ceramic rolling elements |

2. TYPE

| | |
|---------|--------------------------------------|
| 6: | Single row deep groove ball bearing |
| 8, WC8: | Single row deep groove ball bearing |
| BL: | Maximum capacity |
| DE, DF: | Special double row ball bearing |
| SC, SX: | Special single row ball bearing |
| R: | Inch series |
| TMB: | Long life thermal mechanical bearing |

3. SERIES

| | |
|----|---------------|
| 8: | ISO 18 series |
| 9: | ISO 19 series |
| 0: | ISO 10 series |
| 2: | ISO 02 series |
| 3: | ISO 03 series |

4. BORE

| | |
|------|--|
| 00: | 10mm |
| 01: | 12mm |
| 02: | 15mm |
| 03: | 17mm |
| 04+: | # * 5 = Bore diameter in mm (ex. 04=20 mm) |

5. INTERNAL DESIGN

| | |
|----|---|
| A: | Internal design change, from A onward |
| U: | Universal seal groove for open bearings |
| C: | Capacity up bearings |

6. CHAMFER

| | |
|-----|--|
| Xn: | Special chamfer, from 1 onward (X1, X2...) |
|-----|--|

7. CAGE

| | |
|------------|-----------------------------|
| No Symbol: | Standard cage |
| J: | Pressed steel cage |
| T1: | Phenolic cage |
| T2: | Nylon cage |
| L1: | Machined brass cage |
| JR: | Pressed steel (riveted) |
| JA: | Pressed steel (bent finger) |

8. SEAL OR SHIELD

| | |
|--------------|-------------------------------------|
| No Symbol: | Open type |
| LB, LLB: | Non-contact type rubber seal(s) |
| LU, LLU: | Contact type rubber seal(s) |
| LH, LLH: | Light contact rubber seal |
| LUA, LLUA: | Polyacrylic seal |
| LUA1, LLUA1: | Fluorocarbon seal |
| Z, ZZ: | Steel shield(s) |
| Z1, ZZ1: | Stainless steel shield(s) |
| ZA, ZZA: | Removable steel shield(s) |
| ZA1, ZZA1: | Removable stainless steel shield(s) |

9. RING MODIFICATION

| | |
|--------|--|
| N: | Snap ring groove on outer ring, without snap ring |
| NR: | Snap ring groove on outer ring, snap ring included |
| NRS: | Snap ring and groove on opposite side |
| /X.XX: | Special dimension, XX.XX in mm (Ex. 5/16" bore = /7.938) |

10. INTERNAL CLEARANCE

| | |
|------------|---|
| No symbol: | Normal clearance |
| C1: | Clearance less than C2 |
| C2: | Clearance less than normal |
| C3: | Clearance greater than normal |
| C4: | Clearance greater than C3 |
| C5: | Clearance greater than C4 |
| C3L: | Low group of C3 clearance |
| CSxx: | Clearance special (xx is mean value 0.001 mm) |

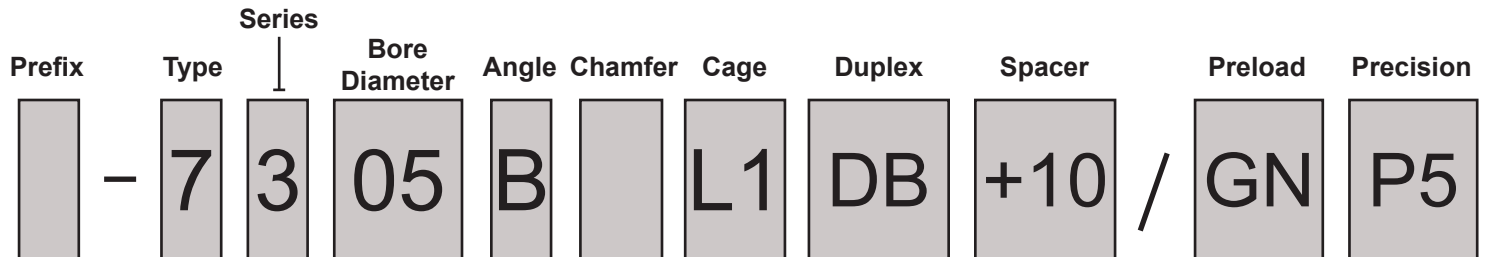
11. PRECISION

| | |
|------------|---|
| No symbol: | ISO class 0 (equivalent to ABEC 1) |
| P6: | ISO class 6 (equivalent to ABEC 3) |
| P5: | ISO class 5 (equivalent to ABEC 5) |
| P4: | ISO class 4 (equivalent to ABEC 7) |
| P2: | ISO class 2 (equivalent to ABEC 9) |
| PXn: | Special radial tolerance from 1 onward (PX1, PX2,...) |

12. LUBRICANT

| | |
|-------|-------------------------------------|
| 2AS: | Shell Alvania 2 |
| 2E: | Exxon Unirex N3 |
| 3AS: | Shell Oil Alvania #3 grease |
| 5C: | Chevron SRI#2 grease (MIL-G-18709A) |
| L627: | Exxon Polyrex EM |
| 0G: | No grease |

Angular Contact Ball Bearing Numbering System



1. PREFIX

| | |
|------------|---------------------------------------|
| No Prefix: | Heat stabilized up to 250 °F (120 °C) |
| TS2: | Heat stabilized up to 320 °F (160 °C) |
| TS3: | Heat stabilized up to 390 °F (200 °C) |
| TS4: | Heat stabilized up to 480 °F (250 °C) |
| 5S: | Ceramic rolling elements |

2. TYPE

| | |
|---------|---|
| 3: | Double row angular contact w/ filling slot |
| 5: | Double row angular contact w/o filling slot |
| 7: | Angular contact ball bearing |
| BNT: | High speed angular contact bearing |
| BST: | Ball screw support |
| HSA: | High speed angular contact bearing |
| HSB: | High speed angular contact bearing |
| HSE: | High speed angular contact bearing |
| SF: | Special angle row angular contact |
| DE, DF: | Special double row angular contact |

3. SERIES

| | |
|----|---------------|
| 8: | ISO 18 series |
| 9: | ISO 19 series |
| 0: | ISO 10 series |
| 2: | ISO 02 series |
| 3: | ISO 03 series |

4. BORE

| | |
|------|--|
| 00: | 10mm |
| 01: | 12mm |
| 02: | 15mm |
| 03: | 17mm |
| 04+: | # * 5 = Bore diameter in mm (ex. 04=20 mm) |

5. CONTACT ANGLE

| | |
|------------|-------------------|
| No symbol: | Contact angle 30° |
| B: | Contact angle 40° |
| C: | Contact angle 15° |

6. CHAMFER

| | |
|-----|--|
| Xn: | Special chamfer, from 1 onward (X1, X2...) |
|-----|--|

7. CAGE

| | |
|------------|---------------------|
| No Symbol: | Standard cage |
| J: | Pressed steel cage |
| L1: | Machined brass cage |
| T1: | Phenolic cage |
| T2: | Nylon cage |

8. DUPLEX ARRANGEMENT

| | |
|------|---|
| DB: | Duplex pair, back to back mounting |
| DF: | Duplex pair, face to face mounting |
| DT: | Duplex pair, tandem mounting |
| G: | Single bearing, flush ground, universal mount |
| GD2: | Pair of universally mountable bearings |
| +A: | Spacer (A is nominal width of spacer in mm) |

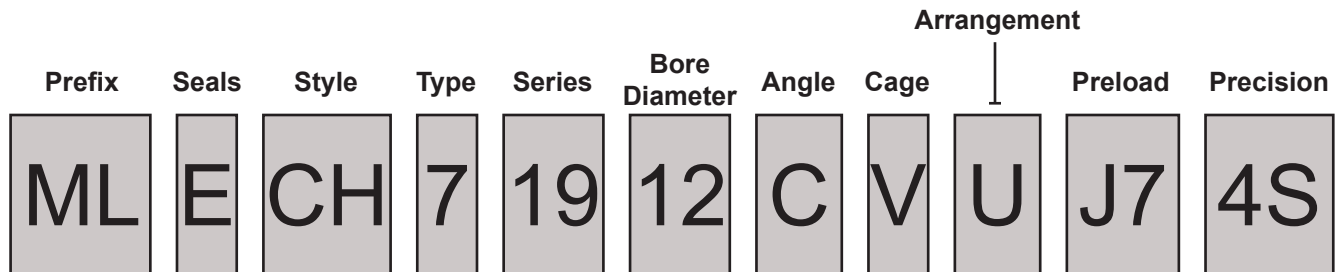
9. PRELOAD

| | |
|-----|-----------------|
| GL: | Light preload |
| GN: | Normal preload |
| GM: | Medium preload |
| GH: | Heavy preload |
| Gn: | Special Preload |

10. PRECISION

| | |
|------|---|
| P6: | ISO class 6 (equivalent to ABEC 3) |
| P5: | ISO class 5 (equivalent to ABEC 5) |
| P4: | ISO class 4 (equivalent to ABEC 7) |
| P2: | ISO class 2 (equivalent to ABEC 9) |
| PXn: | Special precision, from 1 onward (PX1, PX2,...) |

Angular Contact Ball Bearing Numbering System (*NTN-SNR*)



1. PREFIX

ML: High speed range (small ball)

2. SEALS

E: Sealed bearing

3. STYLE

CH: Hybrid bearing (ceramic balls)

N: HNS bearing (stainless steel)

4. TYPE

7: Angular contact

5. SERIES

19: ISO 19 (equivalent to NTN 7900 series)

0: ISO 10

2: ISO 02

6. BORE DIAMETER

00: 10mm

01: 12mm

02: 15mm

03: 17mm

04+: # * 5 = Bore diameter in mm (ex. 04=20 mm)

7. CONTACT ANGLE

C: Contact angle 15° (ML: 17°)

H: Contact angle 25° (ML: 25°)

8. CAGE

V: Phenolic cage - (Series 719-70)

G1: Phenolic cage - (Series 72)

9. ARRANGEMENT

U: Universal single bearing

DU: Universal pair

TU: Arrangement of 3 universal bearings

QU: Arrangement of 4 universal bearings

DB: Back to back pair

DF: Face to face pair

DT: Tandem pair

Q16: Back to back pair with single tandem

Q21: Two tandem sets back to back

Q18: Three tandem with single back to back

Q34: Back to back bearings with different contact angles

Q30: Back to back pair with single tandem

10. PRELOAD

J7: Light

J8: Medium

J9: Heavy

JX: Special

J0: No preload

11. PRECISION

4: ISO class 4 (equivalent to ABEC 7)

4S: ISO class 4 (equivalent to ABEC 7) for ML and MLE

2: ISO class 2 (equivalent to ABEC 9)

Self-Aligning Ball Bearing Numbering System

| Type | Series | Bore Diameter | Internal Design | Cage | Ring Modification | Clearance |
|------|--------|---------------|-----------------|------|-------------------|-----------|
| 1 | 2 | 05 | | | K | C3 |

1. TYPE

- 1: Standard self-aligning ball bearing
- 2: Wide self-aligning ball bearing

2. SERIES

- 2: ISO 02 series
- 3: ISO 03 series

3. BORE

- 00: 10mm
- 01: 12mm
- 02: 15mm
- 03: 17mm
- 04+: # * 5 = Bore diameter in mm (ex. 04=20 mm)

4. INTERNAL DESIGN

- S: Internal design

5. CAGE

- No Symbol: Standard cage
- J: Pressed steel cage
- T2: Plastic cage, nylon or teflon
- L1: Machined brass cage

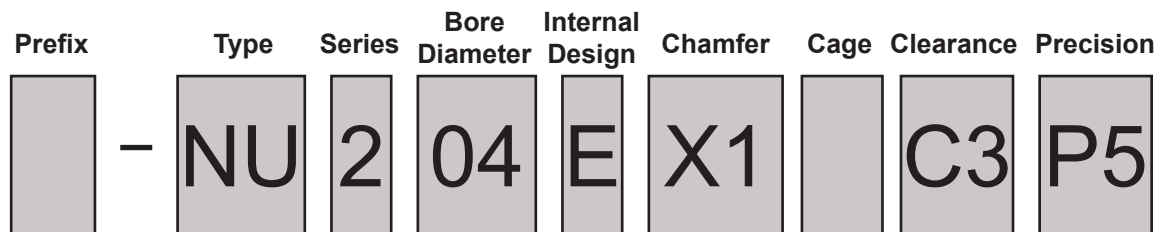
6. RING MODIFICATION

- K: Tapered bore (1:12)

7. INTERNAL CLEARANCE

- No symbol: Normal clearance
- C1: Clearance less than C2
- C2: Clearance less than normal
- C3: Clearance greater than normal
- C4: Clearance greater than C3
- C5: Clearance greater than C4
- CSxx: Clearance special
(xx is mean value 0.001 mm)

Cylindrical Roller Bearing Numbering System



1. PREFIX

| | |
|------------|---------------------------------------|
| No Prefix: | Heat stabilized up to 250 °F (120 °C) |
| TS2: | Heat stabilized up to 320 °F (160 °C) |
| TS3: | Heat stabilized up to 390 °F (200 °C) |
| TS4: | Heat stabilized up to 480 °F (250 °C) |

2. TYPE

| | |
|-------------|--|
| N: | Straight outer ring w/inner ring and roller assembly |
| NU: | Straight inner ring w/outer ring and roller assembly |
| NF: | One lip outer ring w/inner ring and roller assembly |
| NJ: | One lip inner ring w/outer ring and roller assembly |
| NH: | NJ series bearing w/HJ thrust collar (NJ+HJ = NH) |
| NN: | Double row cylindrical roller bearing |
| HJ: | Separate thrust collar |
| R, RN, RNU: | Special cylindrical roller bearing |
| NUP: | Non-separable ring and roller assembly |

3. SERIES

| | |
|-----|--------------------|
| 10: | ISO 10 Series |
| 2: | ISO 02 Series |
| 22: | Wide ISO 02 Series |
| 23: | Wide ISO 03 Series |
| 3: | ISO 03 Series |
| 4: | ISO 04 Series |

4. BORE

| | |
|------|--|
| 00: | 10mm |
| 01: | 12mm |
| 02: | 15mm |
| 03: | 17mm |
| 04+: | # * 5 = Bore diameter in mm (ex. 04=20 mm) |

5. INTERNAL DESIGN

| | |
|----|-------------------|
| E: | High capacity CRB |
|----|-------------------|

6. CHAMFER

| | |
|-----|--|
| Xn: | Special chamfer, from 1 onward (X1, X2...) |
|-----|--|

7. CAGE

| | |
|------------|---------------------|
| No symbol: | Standard cage |
| F1: | Machined steel cage |
| J: | Pressed steel cage |
| G1: | Machined brass cage |
| L1: | Machined brass cage |
| T2: | Nylon cage |
| T2X: | Nylon cage |

8. INTERNAL CLEARANCE

| | |
|------------|--|
| No symbol: | Normal clearance |
| NA: | Radial clearance of cylindrical roller bearing with non-interchangeable components |
| C1: | Clearance less than C2 |
| C2: | Clearance less than normal |
| C3: | Clearance greater than normal |
| C4: | Clearance greater than C3 |
| C5: | Clearance greater than C4 |
| CSxx: | Clearance special (xx is mean value 0.001 mm) |

9. PRECISION

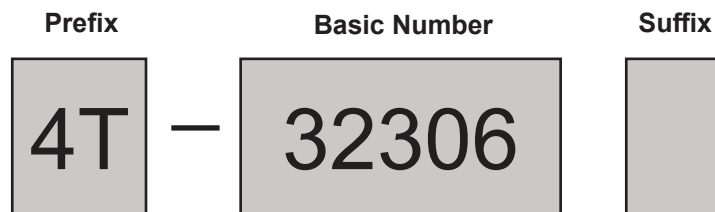
| | |
|------------|--|
| No symbol: | ISO class 0 (equivalent to ABEC 1) |
| P6: | ISO class 6 (equivalent to ABEC 3) |
| P5: | ISO class 5 (equivalent to ABEC 5) |
| P4: | ISO class 4 (equivalent to ABEC 7) |
| P2: | ISO class 2 (equivalent to ABEC 9) |
| PXn: | Special precision, from 1 onward (PX1, PX2, ...) |
| UP: | Ultra High Precision |

Tapered Roller Bearing Numbering System

Inch Series



ISO (Metric) Series



1. PREFIX

| | |
|-----|---|
| ET: | NTN Endurance taper roller bearing, case hardened |
| 4T: | NTN 4-Top tapered roller bearing, case hardened |
| E: | Case hardened steel |
| T: | Internationally interchangeable dimensions |

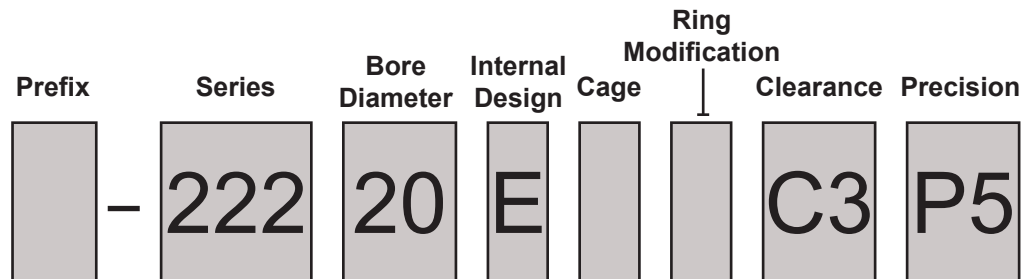
2. SERIES

| | |
|-----|-----------------------------------|
| HH: | Heavier than heavy |
| H: | Heavy |
| HM: | Heavy-medium |
| M: | Medium |
| LM: | Light medium |
| L: | Light |
| J: | J-metric series (ex: 4T-JM736110) |

3. SUFFIX

| | |
|------|--|
| A: | Different bore, OD, width or radius from basic pn |
| D: | Denotes double ring (inch series only) |
| L: | Seal |
| PK: | Class K for J metric |
| PXn: | Special tolerance from 1 onward (PX1, PX2,...) |
| S: | Different bore, OD, width or radius from basic pn |
| U: | ISO series, internationally interchangeable through hardened steel |
| W: | Slot or keyway |
| X: | Different bore, OD, width or radius from basic pn |
| -3: | AFBMA class 3 |
| -0: | AFBMA class 0 |
| -00: | AFBMA class 00 |

Spherical Roller Bearing Numbering System



1. PREFIX

| | |
|------|---------------------------------------|
| TS2: | Heat stabilized up to 320 °F (160 °C) |
| TS3: | Heat stabilized up to 390 °F (200 °C) |
| TS4: | Heat stabilized up to 480 °F (250 °C) |
| MX: | All components phosphate coated |

2. SERIES

| | |
|-----------|--|
| 213: | Standard series spherical roller bearing |
| 222, 223: | Standard series spherical roller bearing |
| 230, 231: | Standard series spherical roller bearing |
| 232, 239: | Standard series spherical roller bearing |
| 240, 241: | Standard series spherical roller bearing |
| W: | Wide series spherical w/integral seals |

3. BORE

| | |
|------|--|
| 00: | 10mm |
| 01: | 12mm |
| 02: | 15mm |
| 03: | 17mm |
| 04+: | # * 5 = Bore diameter in mm (ex. 04=20 mm) |

4. INTERNAL DESIGN

| | |
|-----|---|
| B: | One pc ribbed inner ring, asymmetrical roller, center guide rib |
| UA: | Inner ring w/o center guide, asymmetrical rollers & outer ring center guided retainer (limited thrust capabilities) |
| E: | High capacity spherical roller bearing (stabilized to 200 °C) |

5. CAGE

| | |
|------------|------------------------------|
| No Symbol: | Standard cage |
| A: | Pressed steel cage (E Type) |
| J: | Pressed steel cage |
| L1: | Machined brass cage |
| M: | Machined brass cage (E Type) |
| T2: | Nylon cage |
| G15: | Nylon cage (E Type) |

6. SEALS

| | |
|-----|---|
| LL: | Two integral garter seals w/steel backing plate |
|-----|---|

7. RING MODIFICATION

| | |
|------|---------------------------------------|
| D1: | Oil groove and holes |
| W33: | Oil groove and holes |
| K: | Tapered bore (1:12) |
| K30: | Tapered Bore (1:30) (240, 241 series) |

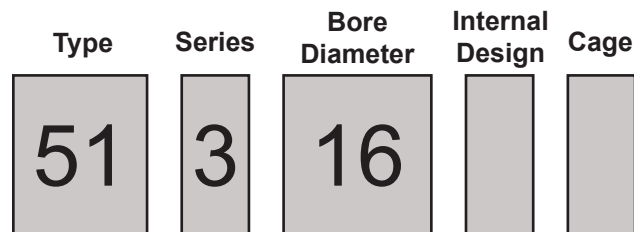
8. INTERNAL CLEARANCE

| | |
|------------|---|
| No symbol: | Normal clearance |
| C1: | Clearance less than C2 |
| C2: | Clearance less than normal |
| C3: | Clearance greater than normal |
| C4: | Clearance greater than C3 |
| C5: | Clearance greater than C4 |
| CSxx: | Clearance special (xx is mean value 0.001 mm) |

9. PRECISION

| | |
|--------------|--|
| No symbol: | ISO class 0 (equivalent to ABEC 1) |
| PXn: | Special precision, from 1 onward (PX1, PX2, ...) |
| Vn: | Special requirement, from 1 onward (V1, V2,...) |
| VS1 or F801: | Special tolerance for shaker screen bearing (C3 clearance) |
| VS2 or F800: | Special tolerance for shaker screen bearing (C4 clearance) |
| F802: | Special tolerance for shaker screen bearing (C0 clearance) |

Ball and Roller Thrust Bearing Numbering System



1. TYPE

- 51, 53*: Single direction thrust ball bearing
- 52, 54*: Double direction thrust ball bearing
- 56: Angular contact thrust bearing
- 292: Spherical thrust roller bearing
- 293: Spherical thrust roller bearing
- 294: Spherical thrust roller bearing
- 29: Single direction thrust ball bearing
- 9: Single direction thrust ball bearing

*Self-aligning outside diameter

2. SERIES

- 8: ISO 18 series
- 9: ISO 19 series
- 0: ISO 10 series
- 2: ISO 02 series
- 3: ISO 03 series

3. BORE

- 00: 10mm
- 01: 12mm
- 02: 15mm
- 03: 17mm
- 04+: # * 5 = Bore diameter in mm (ex. 04=20 mm)

4. INTERNAL DESIGN

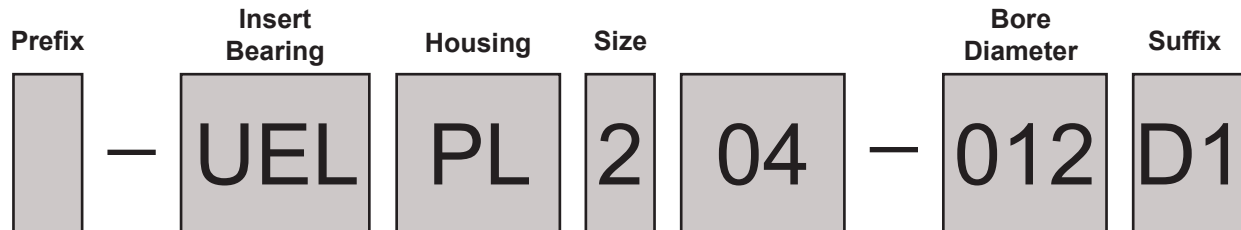
- E: Internal design, not interchangeable with standard series.
- U: Misaligning ring included (type 53 and 54 only)

5. CAGE

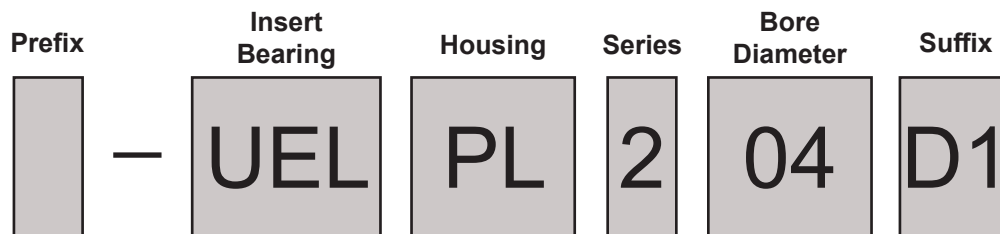
- No Symbol: Standard cage
- J: Pressed steel cage
- L1: Machined brass cage
- T2: Nylon cage

Mounted Bearing Unit Numbering System

Inch Series



ISO (Metric) Series



1. PREFIX

| | |
|-----|------------------------------------|
| F: | Stainless |
| A: | Lube on non-locking mechanism side |
| C: | Open cover (Cast iron) |
| CM: | Closed cover (Cast iron) |

2. BEARING INSERTS*

| | |
|------|--|
| AEL: | Narrow inner ring, locking collar |
| AR: | Narrow inner ring, set screw type |
| AS: | Narrow inner ring, set screw type |
| JEL: | Narrow inner ring, eccentric locking collar |
| REL: | Wide inner ring, eccentric locking collar |
| UR: | Wide inner ring, set screw type |
| UC: | Wide inner ring, set screw type w/flinger |
| UEL: | Wide inner ring, locking collar w/flinger |
| UK: | Tapered bore, w/ flinger |
| * | For cylindrical OD, add "S" to pn (ex: JELS) |

3. HOUSING

| | |
|------|---|
| F: | Flanged unit, cast 4-bolt square housing |
| FA: | Flanged unit, cast rhombus housing |
| FC: | Flange piloted unit, cast, round housing |
| FD: | Flanged unit, cast, short 2-bolt housing |
| FH: | Flanged unit, cast housing |
| FL: | Flanged unit, cast, 2-bolt housing |
| FS: | Flanged piloted unit, cast, 4-bolt square housing |
| FU: | Flanged unit, cast, 4-bolt square bearing |
| PF: | Flanged unit, pressed steel, 3-bolt round housing |
| PFL: | Flanged unit, pressed steel, 2-bolt housing |
| RPF: | Flanged unit, pressed steel w/rubber ring, 3-bolt round housing |
| HP: | Pillow block, cast housing, high center height |

3. HOUSING (CONT.)

| | |
|------|---|
| P: | Pillow block, cast housing |
| PL: | Pillow block, cast housing, low center height |
| PP: | Pillow block, pressed steel housing |
| RPP: | Pillow block, pressed steel housing w/rubber ring |
| UP: | Pillow block, cast housing, tapped base |
| C: | Cylindrical cartridge unit |
| HB: | Hanger unit, cast housing |
| PT: | Mini stretcher |
| T: | Take-up unit, cast housing |

4. SERIES

| | |
|----|--------|
| 2: | Light |
| X: | Medium |
| 3: | Heavy |

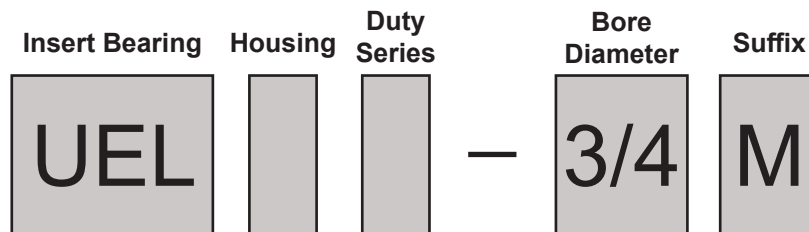
5. BORE

| | |
|------|--|
| 00: | 10mm |
| 01: | 12mm |
| 02: | 15mm |
| 03: | 17mm |
| 04+: | # * 5 = Bore diameter in mm (ex. 04=20 mm) |
| Xnn: | Number of 1/16" (ex: 115 = 1.15/16") |

6. SUFFIX

| | |
|--------|---------------------------------------|
| D1: | Relube type |
| W3: | Cup point set screw |
| N: | Snap ring groove |
| NR: | Snap ring and groove |
| R: | Meets ISO series |
| HT1D1: | Heat stabilized up to 284 °F |
| HT2D1: | Heat stabilized up to 392 °F (200 °C) |
| CT1: | Cold stabilized down to -76 °F |

Ultra-Class™ Mounted Bearing Unit Numbering System



1. BEARING INSERTS

| | |
|------|---|
| AR: | Narrow inner ring, set screw type |
| JEL: | Narrow inner ring, locking collar |
| UC: | Wide inner ring, set screw type w/flinger |
| UEL: | Wide inner ring, locking collar w/flinger |

2. HOUSING

| | |
|------|---|
| FLU: | Flanged unit, cast, 2-bolt housing |
| FU: | Flanged unit, cast, 4-bolt square bearing |
| P: | Pillow block, cast housing |
| PL: | Pillow block, cast housing, low center height |

3. DUTY SERIES

| | |
|------------|--|
| No symbol: | Standard duty (equivalent to 2 series) |
| X: | Medium duty (equivalent to X series) |

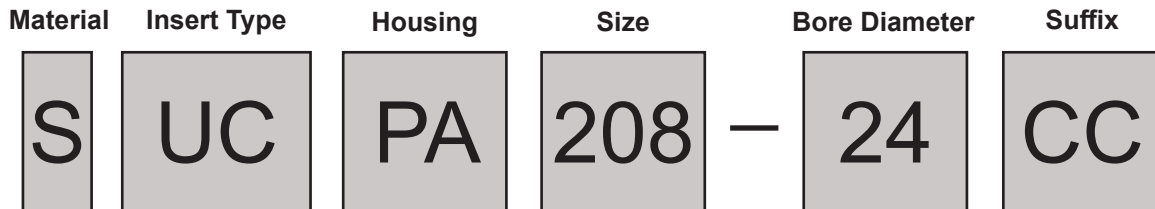
4. BORE DIAMETER

| | |
|--------|---------------------------|
| X.X/X: | Bore diameter in fraction |
|--------|---------------------------|

5. SUFFIX

| | |
|-------|---|
| M: | Black oxide coating |
| FG1: | Food grade solid lube, no relube feature included |
| LP03: | Standard solid lube |
| LP09: | Food grade solid lube |

Corrosion Resistant Bearing Unit Numbering System (*NTN-SNR*)



1. MATERIAL

- S: Stainless steel
- Z: Zinc plated (insert only)
- M: Stainless steel (insert only)

2. INSERT TYPE

- UC: Wide inner ring, set screw type w/flinger
- UEL: Wide inner ring, locking collar, w/flinger

3. HOUSING

- P: Pillow block
- PA: Tapped base pillow block, cast housing
- PL: Pillow block, cast housing, low center height
- PPL: Pillow block, thermoplastic housing*
- FL: Two bolt flange, cast housing
- NFL: Two bolt flange, thermoplastic housing*
- FBL: Three bolt flange, thermoplastic housing*
- F: Four bolt flange, cast housing
- FPL: Four bolt flange, thermoplastic housing*
- T: Take up unit, cast housing

*These housings can only be used with "M" or "Z" inserts.
All other units are only used with "S" inserts.

4. Size

- 2xx: Base housing and bearing size

5. BORE DIAMETER

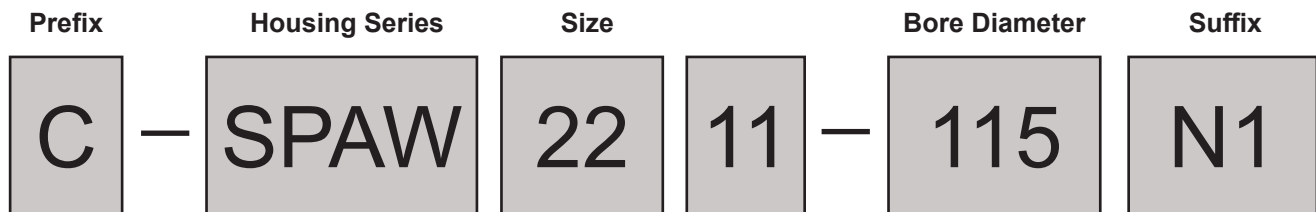
- X: Bore diameter in 16ths of an inch (ex: 24/16 = 1.5")

6. SUFFIX

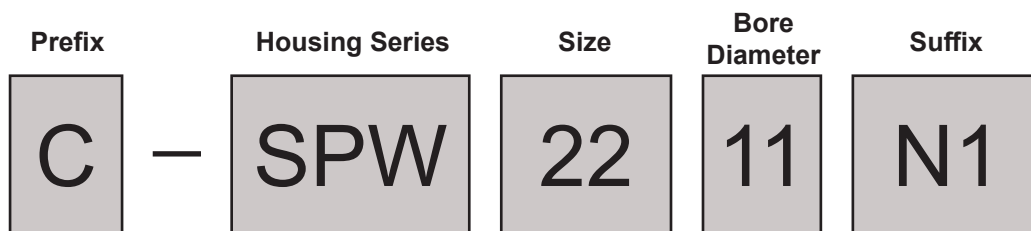
- CC: Closed Cover (one closed and one open cover)
- CO: Open Cover (two open covers)
- FG1: Food grade solid lube, no relube feature included
- N: Machined face to accept end covers

Spherical Housed Bearing Unit Numbering System

Inch Series



ISO (Metric) Series



1. PREFIX

C: Taconite service seals with open covers
 CM: Taconite service seal with closed cover

2. HOUSING SERIES

SP: Sealed metric spherical pillow block
 (inch or metric shaft)
 SPA: Sealed inch spherical pillow block
 (inch or metric shaft)
 SFC: Sealed metric spherical, flanged block
 (inch or metric shaft)
 SAF: Split pillow block, cast iron housing
 (inch bore shaft)
 SAFS: Split pillow block, cast steel housing
 (inch bore shaft)
 FSAF: Split pillow block, cast iron, 4 bolt base
 FSPA: Sealed pillow block, inch, 4 bolt base

3. BEARING

W222: Sealed, wide spherical roller bearing

4. BORE DIAMETER

Xnn: Number of 1/16" (ex: 115 = 1.15/16")
 04+: # * 5 = Bore diameter in mm (ex. 04=20 mm)

5. SUFFIX

N1: Ductile cast iron housing
 F: Solid base
 G: One stabilizing ring included
 (when ordering housing only)

Prefix & Suffix Interchange

| CHARACTERISTICS | NTN | SKF | FAG | TIMKEN | NSK | NTN |
|---------------------------|-------------------------|------------|----------------|---------|---------|-------------------------|
| Closures | | | | | | |
| One Non-Contact Seal | LB | RZ | RSD | N/A | V | LB |
| Two Non-Contact Seals | LLB | 2RZ | 2RSD | N/A | VV | LLB |
| One Contact Seal | LU | RS1 | RSR | P | DU | LU |
| Two Contact Seals | LLU | 2RS1 | 2RSR | PP | DDU | LLU |
| One Shield | Z | Z | Z | D | Z | Z |
| Two Shields | ZZ | 2Z | 2Z | DD | ZZ | ZZ |
| One Snap Ring | NR | NR | NR | G | NR | NR |
| Precision Classes | | | | | | |
| ABEC 3 | P6 | P6 | P6 | M* | PA3 | P6 |
| ABEC 5 | P5 | P5 | P5 | V* | P5, PA5 | P5 |
| ABEC 7 | P4 | P4 | P4 | MM* | P4, PA7 | P4 |
| ABEC 9 | P2 | PA9A | P2 | MMX* | P2, PA7 | P2 |
| Contact Angles | | | | | | |
| 15° | C | C | C | 2* | C | C |
| 25° | H | AC, ACD | E | 3* | A5 | H |
| 30° | NO SYM | A | N/A | N/A | NO SYM | NO SYM |
| 40° | B | B | B | WN | B | B |
| Preload | | | | | | |
| Extra Light | GL | G0 | UO | UX | C2 | GL |
| Light | GN, J74 | GA | UL | UL | L, C7 | GN, J74 |
| Medium | GM, J84 | GB | UM | UM | M, C8 | GM, J84 |
| Heavy | GH, J94 | GC | - | UH | H, C9 | GH, J94 |
| Cage | | | | | | |
| Phenolic | T1 | TP | TA, TB, TH, TP | CR | T | T1 |
| Pressed Brass | Y | Y | MP | NO SYM | Y | Y |
| Polyamide | T2 | TN, P | TN | PRB/PRC | TY | T2 |
| Bronze | L1 | M | M, MP | MBR | CAM, M | L1 |
| Nylon | T2 | TN9 | T, TV | CF | TY | T2 |
| Pressed Steel | J | J | J | C, CD | W | J |
| Duplex | | | | | | |
| Universal Ground | G, U | G** | U | SU | G | G, U |
| Spherical Features | | | | | | |
| Taper Bore | K | K | K | K | K | K |
| Oil Groove | W33, D1 | W33 | S | W33 | E4 | W33, D1 |
| Shaker Screens | UAVS, EF800, EMADIVS | CACM2/W502 | F80 | W800 | U15-VS | UAVS, EF800, EMADIVS |

Ball Bearing Contact Seal Design Features:

- Dual lip design
 - As one lip wears, the secondary lip makes contact
 - Longer seal life
- Tighter contact pressure
- Available in various higher temp materials
- Available in low torque design
- Most competitors use a single lip design

* Prefix

** Old Nomenclature; New = CA, CB, CC, GA, GB, GC

NTN's DOL

DOL (Distributor On-Line) is your one-stop e-shop

DOL is so much more than just an online ordering site. Available when and where you need it, consider it to be your personalized NTN store – complete with your account-specific pricing, ordering templates, customer service contact information, order tracking, and full visibility into NTN's aftermarket inventory. And it's all easily accessible and manageable from your computer or mobile device.



Place orders easier

Create an order with the Order Pad function, or upload a spreadsheet with the products you need using Order Uploader, or manage your Shopping Cart (or multiple carts!) to create an ongoing Stocking Order template. Once a part is selected, the LIVE inventory availability, customer-specific pricing, and desired packaging options are shown in the Shopping Cart. With the multiple shopping cart feature, you can have more than one order open at a time – and you can name each order so you can keep your orders straight. This helps you manage heavy customer loads so you can still answer the phone, take new orders, or handle any last minute tasks while keeping all your current orders straight.

Multiple Look Ups

Users can look up parts by NTN part number, by competitive part number or OE part number. The Autocorrect function helps direct to the correct number needed. Also, users can find the correct part by entering dimensions and specification in the Build-A-Bearing function.

Control and track orders

Select the best method of shipping for each order, control request dates and shipping schedules, and view your account's sales history. Plus, see when an order was shipped, what location it was shipped from, and when it is expected to arrive.

"Build a Bearing" function

Know the dimensions of the part you need but not the part number? This feature lets you enter the information that you do have and then generates a part that fits your description.

Quickly connect with your customer service representative

On DOL, your account-specific Sales and Customer Service representatives contact information is easily accessible.

Stay up-to-date

Be the first to know about promotional pricing, new product introductions, and product updates.

Register to get set up on DOL today!

If you are an authorized NTN distributor, go online to www.ntn.ca and click on the "Contact Us" link at the top of the page and complete the brief form. Then, your user name and password will be emailed to you.



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