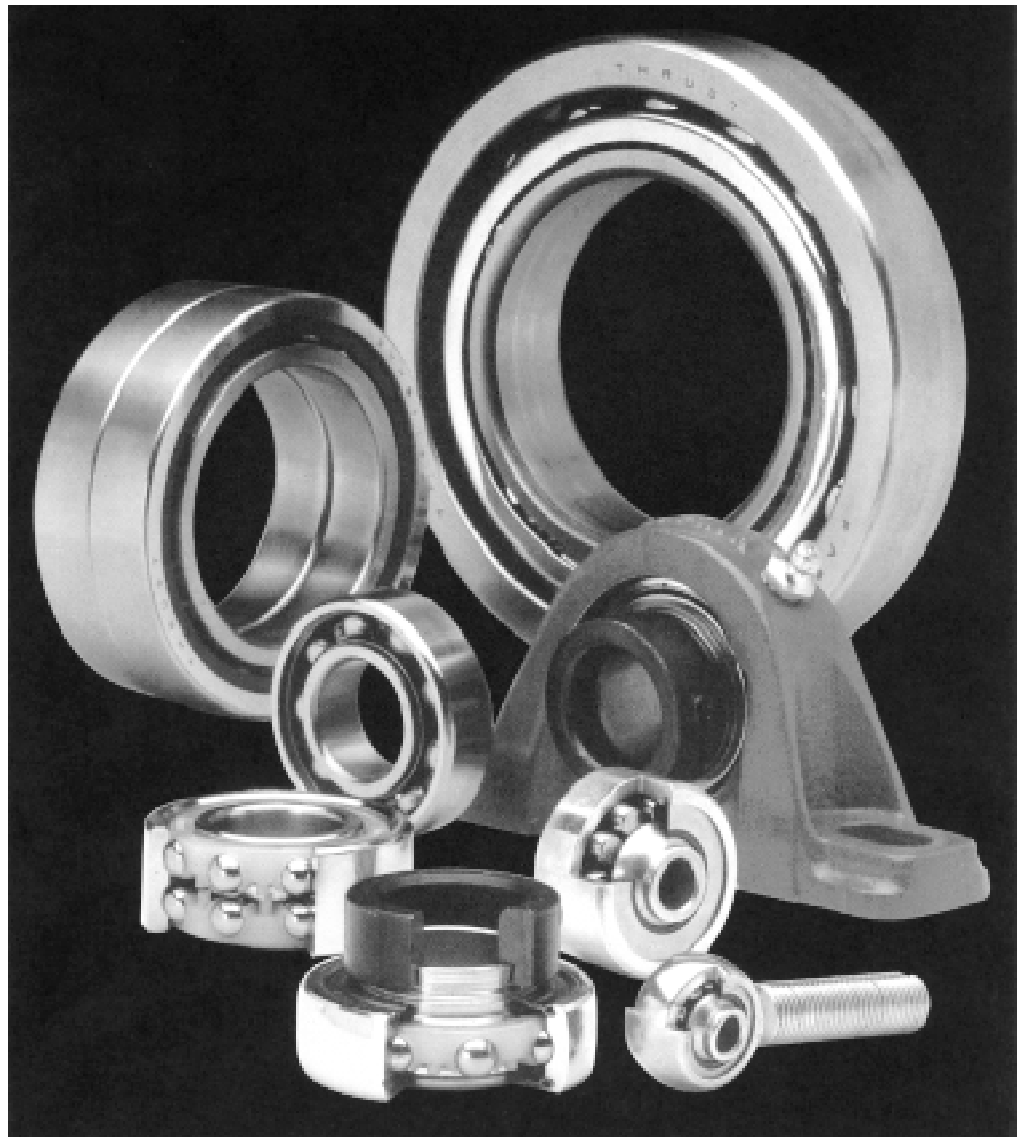


TIMKEN®

Fafnir®



Lettering System

An Explanation of Prefix and Suffix Lettering Symbols
When Applied to Timken Fafnir Bearing Numbers

Contents

Prefix and Suffix Meanings 1-11

Fafnir Nomenclature Charts 12-16

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
A	440-C Stainless Steel only rings & balls. Examples: A205K, A542, etc.	Original maximum (filling slot) type. Example: 417A (obsolete) May also indicate narrow series type. Examples: 4A, 104A (obsolete) Certain aircraft series KFP3A, KFP4A. Examples: KP4A, KSP4A, (K4A, KS4A obsolete) Separator rolls only, external variation. Example: WH16ASB (obsolete)
AA	Any material other than SAE 52100 Steel or 440-C Stainless Steel.	
ACR		Aluminum clad composition retainer. Example: B542 ACR, 9106K ACR
ACM	Cadmium Plated Precision Stainless Steel Airframe Bearing Example: ACMKP4A	
AK		Stainless Steel retainer type, Aircraft bearing. Example: AW5AK
B	Aircraft Torque-Tube Type Example: B542	External self-aligning type, but without the "S" ring. Used on radial and wide inner ring types. Example: 209KB, 310KB, RA100RRB, G1107KLLB, GN307 KRB
BB	Custom designed industrial grade bearing. Examples: BB203KRR2, BB204KRNP4	
BC	Bell Crank Units for Aircraft Example: BC4W10 (obsolete)	
BCP	Bell Crank Units for Aircraft Example: BCP4W10	
BJ	Teflon-Fabric Lined Journal Bearings	
BR		Bronze Retainer -stamped on box only. Example: 214KBR
BS	Teflon-Fabric Lined Plain Spherical Bearings-Standard Series	External self-aligning aircraft torque-tube type. Example: KP25BS
BSH	Teflon-Fabric Lined Plain Spherical Bearings-Heavy Duty Series	
BU	Metal-On-Metal Plain Spherical Bearings Example: BU8ALN21	
BW	Teflon-Fabric Lined Thrust Washer Fabric on one face	

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
C	Instrument-miniature bearings only Radial play .0002 to .0004 (obsolete) Concentric Locking Collar Example: GC1100KRRB Denotes Hybrid Ceramic Precision Bearings. Example: 2MMC9306WOCRDUL	Narrow Series - 4C 104C, etc. (obsolete) A few sizes to denote "cloth cutter fit-up" requiring tight smooth bearings. Examples: 200-OC, 201HC, 43305C, etc. (obsolete) Also used on earlier series roller bearings to indicate width. Example: R319C (obsolete) Separator Roll only external variation. Example: WH9C SB (obsolete)
C1,C2 C3,ETC.		Denotes internal construction change. Overall dimensions and internal clearance unchanged
CC	M50 NIL Material (Any or all components) Example: CCV9126-18	
COL		Supplied with collar.
CPD	Custom Precision double row bearing. Example: CPD539KDD (obsolete)	
CPDP	Custom Precision Disc Pack Example: CPDP225 (obsolete)	
CPT	Custom Precision triple row bearing Example: CPT2-2 (obsolete)	
CR	Cargo Roller Example: CR5N24-2	Stamped on box only to designate composition retainer. Example: 310K CR
CRD	Cargo Roller having double row of balls. Example: CRD4G18	
CRV		Composition Retainer vacuum impregnated with oil. Example: 36-9CRV
D	Aircraft Double-Row-Metal Shields. Example: D3, etc. (obsolete) Also Aircraft Track Rollers. Example: D7R6-3	Steel Plate grease shield on one side of bearing. Example: 307KD
DB		Duplex back-to-back. Used with angular contact and precision spindle type bearing. Stamped on box only. Examples: 7207W-DB, 2MM207WI-DB
DD		Shields on both sides of bearing. Example: 205KDD, RA100DD
DF		Duplex face-to-face. Used usually with angular contact precision spindle type bearings. Stamped on box only. Examples: 7207W-DF, 2MM207WI-DF, etc. Bearings match "DF" can also be used "DB," "DBF," or "DT."
DP	Aircraft Double-Row Seal Type Example: DP3 (obsolete)	

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
DPP	Aircraft Double-Row Seal Type Example: DPP5	Delrin Retainer. Example: AMV8K16-DR
DR		
DSP		
DSRP		
DT	Aircraft Self-Aligning Roller with Seals Example: DSRP6	Duplex Tandem. (7000 series and precision spindle types usually). Examples: 7210WDT, 2M209WIDT. (Bearings matched "DT" can also be used "DB" or "DF").
DU		Duplex Universal-flush-ground for mounting DB, DF, or DT. Example: 7205WDU
DUH		Duplex Universal-heavy preload for precision bearings. Example: 3MM210WICRDUH
DUL		Duplex Universal-light preload for precision bearings. Example: 2MM207WICRDUL
DUM		Duplex Universal-medium preload for precision bearings. Example: 2MM209WICRDUM
DUX		Duplex Universal-ultra light preload for precision bearings. Example: 2MM209WICRDUX
DW		Snap ring (Wireloc) opposite side of shield and slot of maximum capacity bearings.
DWG		
E		Supplied with end cover.
EC		
ER	Wide Inner Ring Bearing with metric bore. Example: E25KPPB3	Excello Bearings. Example: MM50EX
EX		
F		
FBJ		
FBJW	Teflon-Fabric Lined flanged journal bearings. Liner in bore and on face of flange.	

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
FL	Aircraft Fairlead bearings: FL3C3, etc.	
FT		Full type. Max. number of balls without retainer. Example: 7213FT
G	Aircraft Guide Roll: Example: G4Y17, etc. Relubricatable Wide Inner Ring Bearing. Example: G1100KLLB, etc.	Wireloc or snap Ring Type. Example: 207PPG, 306G, etc. Separator rolls only, grease lubricated Example: WH9SBG (obsolete)
GC	Wide inner ring with concentric collar. Example: GC1100KRRB	
GD	Aircraft Double Row Guide Roll. Example: GD5M20	
GDW	Aircraft wide double row with relubrication provision in outer. Example: GDW5	Wireloc, slot, and shield on same side of maximum capacity bearing. Example: 212GDW
GDSRP	Relubricatable, self-aligning roller bearing with Seals. Example: GDSRP6	
GE	Wide Inner ring bearing with metric bore. Example: GE50KRRB	
GN	Heavy Series. Relubricatable Wide Inner Ring Bearings. Example: GN107KLLB	
GRAE	Std. series-relubricatable metric bore extended inner ring. Example: GRAE17RRB	
GW		Wireloc on slot side. Example: 207GW
GWD		Wireloc and shield on side opposite slot of maximum capacity bearings. Example: 210GDW
H	Stamped on box only designates snug internal fit-up. Example: H205KD, etc.	Early Conrad type. Examples: 204H, 8207H (obsolete) (superseded by "K" type)
HX		Counterbored inner and outer. Example: 2MMV9103HX
J	Stamped on box only indicates extra loose internal fit-up. Example: J204 K	
JA	Teflon-Fabric Lined Self-Aligning Journal Bearing.	
JJ	Extra-Extra loose internal fit-up stamped on box only Example: JJ203K	
K	Aircraft Single Row Double Shielded. Example: K3 (obsolete) now replaced with KPS (Seal Type), etc.	Conrad (non-filling slot) type. Examples: 207K, 205K, K47BK, etc.
KF	Single Row bearings with Felt seals. Example: KF4A (obsolete)	
KFP	Aircraft single row wide width seal type. Example: KFP6A	

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
KN		Narrower than standard 5000 series.
KP	Aircraft single row seal type. Example: KP10A, KP37B	
KS	Aircraft Single Row Internal Self-Aligning with shields. Example: KS5 (obsolete)	
KSP	Aircraft Single Row Internal Self-Aligning bearing with bonded seal. Example: KSP3 (Supersedes KS series)	
KT		Wide Inner Type to denote change in outer ring size from original design. Example: SM1108KT
L	Internal Self-Aligning type. Examples: L207, L6307, L5507, etc.	Mechani-Seal on one side of Single Row Radial and Wide Inner Ring bearings. Examples: 205KL, 1012KL, etc. Also a light series Aircraft sizes as K3L with shields.
L		Light Drag Seal for Low Torque Example: 203PPL
L/C		Supplied without Collar.
LD		Mechani-Seal on one side, Plate Shield on other. Examples: 204KLD, 209KLD, etc.
LDG		Wireloc and Shield on same side. Wide Inner Ring Type Shield on side opposite Wireloc, Seal, and cam side. Examples: 304KLDG, 1100KLDG
LF		Mechani-Seal one side with Felt or Composition between seal members. Example: 1105WLF
LG		Wireloc on side opposite Mechani-Seal. Example: 203LG Wide Inner Ring Type Wireloc and Mechani-Seal on Cam Side. Example: 1100KLLG
LL		Mechani-Seals both sides of bearing. Radial and Wide Inner types. Examples: 207KLL, 1107KLL, etc.
LLBF		LL Seals with Felt or Composition between seal members plus spherical outer O.D. Example: 1103KLLBF (obsolete)
LLF		LL Seal with Felt or Composition between seal members. Example: G1107KLLF
M	Precision type manufactured to meet ABEC-3 specifications. Example: M207K When used with aircraft type bearings, bearings are manufactured to Fafnir Precision Airframe tolerances. Example: MKP4, MDW5 Medium Duty Example: GYM1103KRRB, YASM 1 $\frac{3}{16}$	

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
MAR		Machined Aluminum Retainer. Stamped on box only.
MBR		Machined Bronze Retainer. Stamped on box only.
MIR		Malleable Iron Retainer. Stamped on box only.
MM	Superprecision type manufactured to meet ABEC-7 specifications. Example: MM205K, 2MM207WI	
MMV	Modified Class 7 tolerance-Super high (HG) precision between ABEC 7 and ABEC 9.	
MMX	ABEC-9 tolerance	
MSR		Machined Steel Retainer. Example: MM208KMSR stamped on box only.
MUA	Machined Unit., Cyl. outer 200 series	
MUB	Machined Unit., Spherical outer diameter 200 series	
MUOA	Machined Unit., Cyl. outer 300 series	
MUOB	Machined Unit., Spherical outer diameter 200 series	
MV	Instrument bearings only. Modified ABEC-7 P tolerances. Example: MV33KDD5	
MVR		Machined Vespel Retainer. Stamped on box only.
N	Heavy Series nonrelubricatable Wide Inner Ring Bearings. Example: N107KRR	On shielded bearings, suffix "N" means closer-fitting grease shield with more land on bearing face. Example: 307WDDN
NGSR		Nylatron GS Retainer. Example: 9108WI NGSR
NP		Non-removable Seals on one side. Example: 207NP
NPP		Two non-removable Seals. Example: 202NPP
NT		Nickel plated housing-assembled with TDC (thin dense chrome) bearings.
O	Super Quiet bearing utilizing a bonded rubber interliner. Examples: OS5KDD, O9106KDD	
P	Indicates loose internal fit-up. (ABMA #3) Examples: PS3K, P303PP Aircraft special pulley bearings. Example: P5K	Seal on one side of bearings. Example: 205P

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
PBR		Pressed bronze retainer. Stamped on box only.
PDG		Wireloc and Shield on same side.
PG		Wireloc on side opposite seal.
PP		Seal on both sides of bearing. Example: 204PP
PRA, B, C, ETC.		Denotes plastic retainer variations (could be change in design and/or material). Example: B539PRA
PS		Non-stamped seals. Cap stamped "Fafnir made in USA" only. Example: 9102PS
PW		Extra Duty Radial-thrust type (7000 series). 35 degrees angle contact. Example: 7312PW
PWI		Seal with low land on opposite side of inner ring. Example: Y96PWI
Q	Special Endplay requirement for double row bearings.	
QUH		Quadruplex set of bearings, Heavy
QUL		Quadruplex set of bearings, Light
QUM		Quadruplex set of bearings, Medium
QUX		Quadruplex set of bearings, Ultra Light
R	Radial Play. When not the normal fit of bearing.	Single Seal with lip contact on straight cylindrical surface of inner ring O.D. Example: 1100KR
RA	Aircraft Rod-End Bearings Example: RA10M10 Also used for Wide Inner Ring Bearings RA-RR and RA-RRB. Example: RA100RRB.	
RAE	Metric Wide Inner Example: RAE25RRB	
RAL	Wide Inner Ring Bearings -Light series Example: RAL100NPPB	
RB	Double Shielded non-relubricatable Wide Inner Ring Bearings used in Rubber Pillow Blocks. Example: RB012, etc.	
RE	Aircraft Rod End Bearings with shields. Example: RE5M6 (obsolete)	
REB	Aircraft Rod End Bearings with shields. Example: REB3N (obsolete)	
REF	Teflon-Fabric Lined female rodend.	
REH	Teflon-Fabric Lined Hollow shank rodend.	

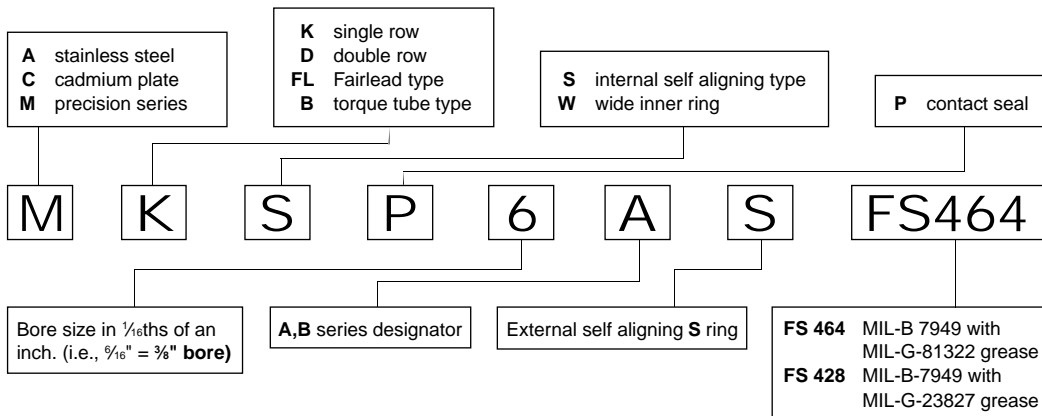
Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
REMS	Teflon-Fabric Lined male rodend with keyway in shank.	
REP	Precision Aircraft Rod End with Seals. Example: REP4M6	
RI		Roller bearing with double shouldered inner race, rollers, and retainer assembly (no outer) Example: V9107RI
RIW		Roller bearing with straight cylindrical outer race and double shouldered inner race. Example: V205RIW
RO		Roller bearing with double shouldered outer race, rollers and retainer assembly (no inner). Example: V9102RO
ROW		Roller bearing with double shouldered outer race and straight cylindrical inner race. Example: V302ROW
RR	Aircraft roller rodend bearings. Example: RR4M9	Double Seal with lips contacting straight cylindrical surface of inner ring O.D. Example: 1207KRR
RS	Double Shielded (No provision for relubrication) Wide Inner Ring bearings used in rubber Pillow Blocks. Example: RS012	
RWI		Roller bearing with double shouldered outer race. Example: V9306RWI
RWN		Roller bearing with single shouldered inner and outer race assembled with shoulders on opposite side of bearing. Example: V208RWN
RWO		Roller bearing with full shouldered outer and single shouldered inner. Example: V9107RWO
S	Small inch dimension sizes Example: S3K Prefix on Self-Locking collars for Wide Inner Ring bearings. Example: S1203K	External Self-Aligning type. Spherical surface on the O.D. is matched with an internal Spherical surface of an extra ring having a straight or flat O.D. Used to designate Single Row and Wide Inner Ring bearings. Examples: 209KS, SM1215KS
SBS	Teflon-Fabric Lined plain spherical bearings with circumferential groove in face of Outer Ring. Standard series.	
SBSH	Teflon-Fabric Lined plain spherical bearings with circumferential groove in face of Outer Ring. Heavy Duty series.	

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
SUH	<p>Denotes Wide Inner Ring bearing with Self-Locking collar and with bore tolerances held closer than those prior to 1927. Examples: SM1203K (bearing is 200 series)</p> <p>Millimeter Bore industrial bearing Example: SME30K inner.</p> <p>Same as for SM except bearing is 300 series. Example: SMN203K</p> <p>Similar to SMN except longer ring. Old designation. Example: SMO212K</p> <p>Stamped on box only. Indicates tight internal fit-up. Example: T304K</p> <p>Precision Type manufactured to meet ABEC-5 tolerances. Example: V207K</p>	Universal Heavy preload packaged singly. Example: 2MM205WICRSUH
SUL		Universal Light preload packaged singly. Example: 2MM205WICRSUL
SUM		Universal Medium preload packaged singly. Example: 2MM205WICRSUM
SUX		Universal Ultra light preload packaged singly. Example: 2MM205WICRSUX
SM		Thrust bearings -one washer bore 1/32" larger than other. Example: 4307SM
SME		Iron Silicon Bronze Machined Retainer. Stamped on box only.
SMBR		
SMN		Steel Stayrod Retainer. Example: 7204W STR SU
SMO		
STR		7000 Series bearing flush ground on both faces for universal mounting (Single bearing)
SU		
T		Felt Seal on one side of bearing. Example: 204KT
TD		Felt Seal on one side with metal grease shield on the other side of bearing. Example: 206KTD
TDCF		THIN Dense Chrome plating & stainless steel seals and balls. Food grade grease.
TS		Teflon tubular spaces for separators. Example: AV542K TS
TT		Felt Seal on both sides of bearing. Example: 205KTT
TUH		Triplex set of bearings, heavy preload.
TUL		Triplex set of bearings, light preload.
TUM		Triplex set of bearings, medium preload.
TUX		Triplex set of bearings, ultra light preload.
V		Extra small bearings used in vacuum cleaners. Example: 38KV Light drag single seal. (Example: 202V)
VL		One Mechani-Seal. Example: 37KVL
VLD		Mechani-Seal one side of bearing, plate grease shield on other. Example: 38KVLD

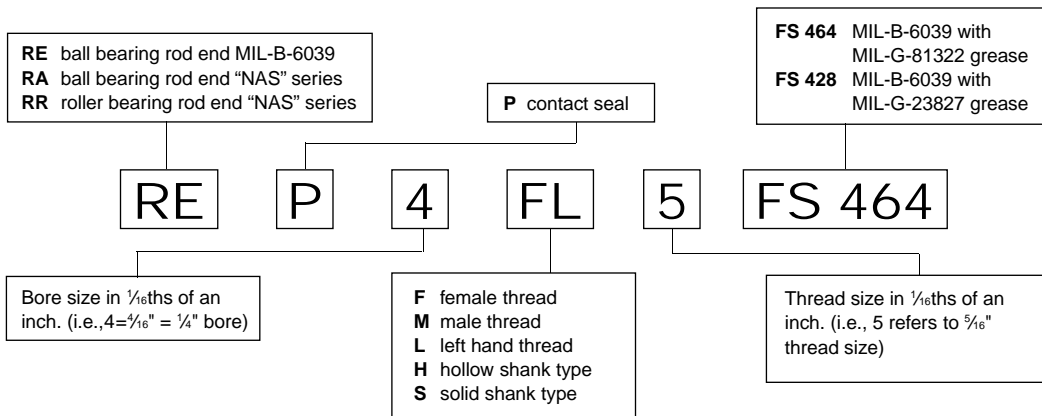
Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
VLL		Mechani-Seal both sides. Example: 38KVLL
VT		One Felt Seal. Example: 39KVT
VTD		Felt Seal on one side of bearing, plate grease shield on other. Example: 38KVTD
VTT		Felt Seal on both sides. Example: 38KVTT
VV		Light drag double seal. Example: 202VV
W	Wide-Type Seal bearings. Example: W307PP Single row bearings widths same as Double row bearings of corresponding sizes. Example: W205PP, W205KLL Wide Air Frame bearings Example: W4AK	20 and 30 degree contact angle (depending on size) for 7000 series angular contact bearings. Example: 7204W, 7207W Maximum ball complement deep groove bearings. Example: 309W
WBS	Teflon-Fabric Lined Plain Spherical bearing-extended inner series.	
WD		Maximum capacity type, shield on one side. Example: 310 WD
WDD		Maximum capacity type, shield on both sides. Example: 310 WDD
WDG		Maximum capacity type, with Wireloc and slot on side opposite shield Example: 310 WDG
WG		Maximum capacity type, with Wireloc on side opposite slot. Example: 310 WG
WH	Whitin Machine Textile bearings. Example: WH5 (obsolete)	
WI		Counterbored outer ring angular contact bearings. Example: 2MM207 WI
WIR	Single row bearing with Double Row width inner ring extended one side. Example: WIR315W	
WIX		Ultra precision type for high speed spindles. Boxed only in pairs that can be mounted "DB," "DF" or "DT." Example: 3MM203WIX (obsolete)
WN		Counterbored inner and outer. Example: 2MM203WN, 7330WN
WO		Counterbored inner ring angular contact bearings. Example: 2MM9106WO

Symbol	Meaning-When Used As Prefix	Meaning-When Used As Suffix
WP	Teflon-Fabric Lined Plain Spherical bearings with circumferential groove in face of outer ring. Extended inner series.	7000 Series with 35 degrees contact angle and outer ring 1mm narrower than inner.Example: 7214WP (obsolete). Superseded by 7000WP series.
WSBS		
WW		Woodworking type. Machined-bronze two-piece riveted retainers, usually used with precision bearings having prefix "M." Example: M408HWW (obsolete)
WZZ		Double Row Aircraft Control Bearing with "DB" angle and seals. Example: B5539WZZ
XLS		
Y		Double Lip Agricultural Seal (One Side)
Y-		
YA		
YB, YN, YO, YR, YS, YT, YU		
YY		Double Lip Agricultural Seal (Both Sides)
ZT	Extra Large Series, Inch Dimensions. Example: XLS56K	Zinc plated housing -assembled with TDC (Thin Dense Chrome) plated bearings.
ZZ		Special Labyrinth Seals with Felt or Composition between seal members -very few sizes. Example: 309KZZ-2 (obsolete) Double Row Aircraft Control Bearing with "DF" angle and contact seals. Example: B5541ZZ (obsolete)
-2, -3, -4, ETC.		Any bearing number followed by a single or double digit indicates a bearing differing from standard (as represented by the bearing proper) in one respect or another. Examples: 201K-3, 207KRRB-2, etc.
2		
3		
	Angular contact ABEC-7, 15° contact angle Example: 2MM207WI	
	Angular contact ABEC-7, 25° contact angle Example: 3MM207WI	

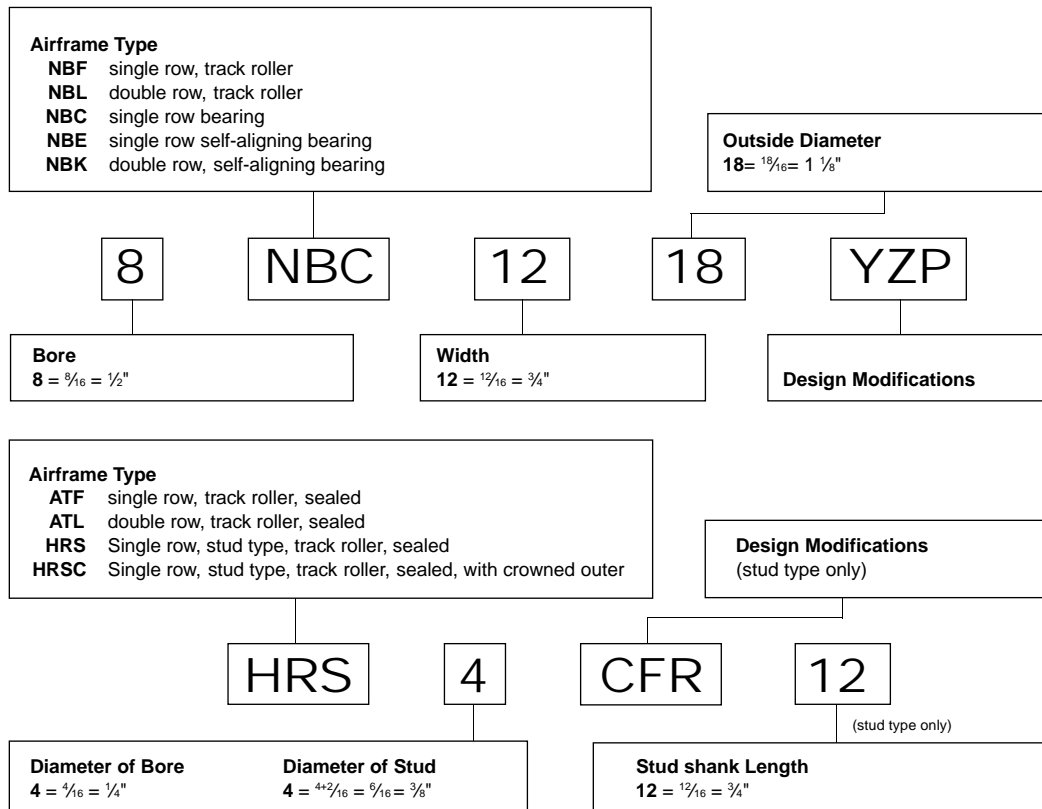
Control Bearings



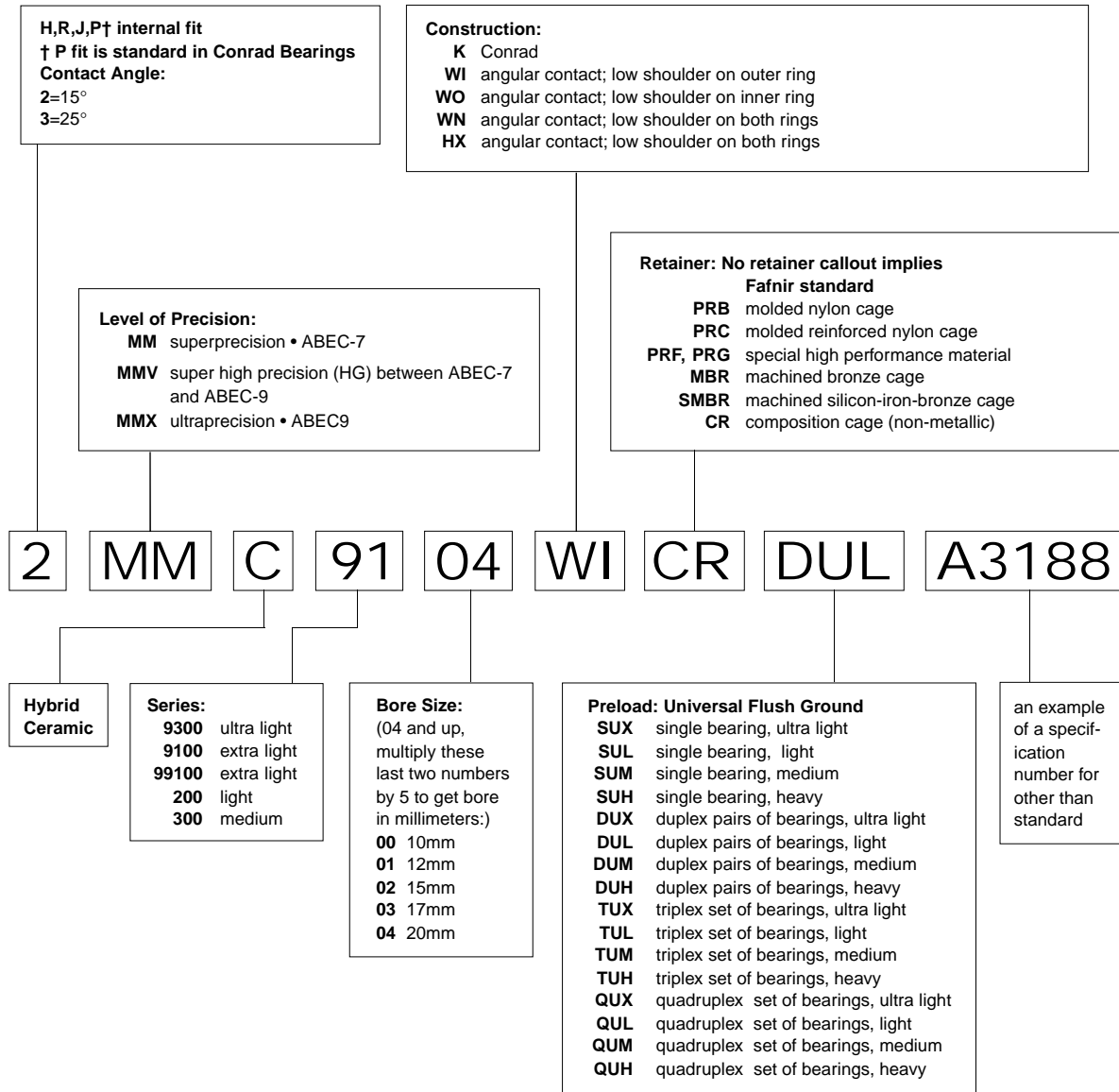
Rod End Bearings



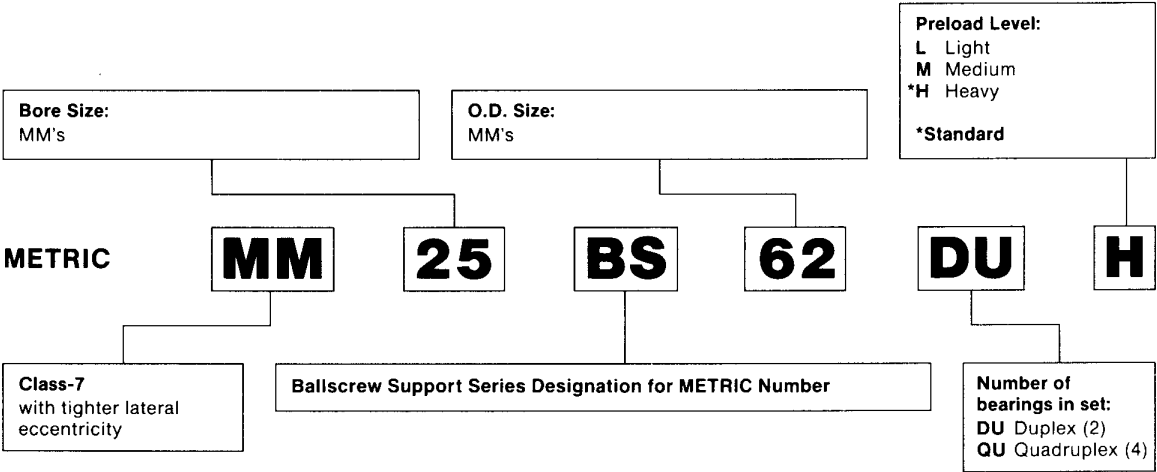
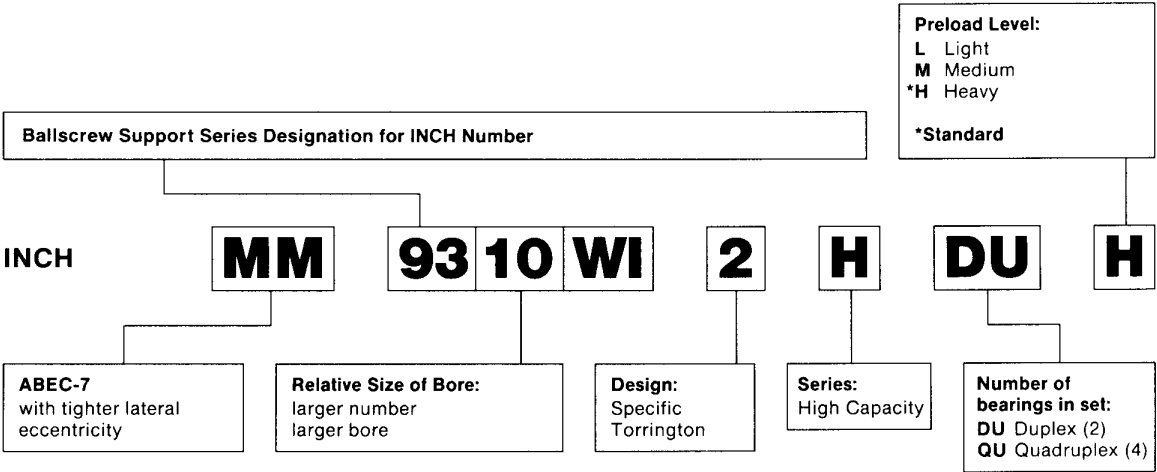
Airframe Needle Roller Bearings



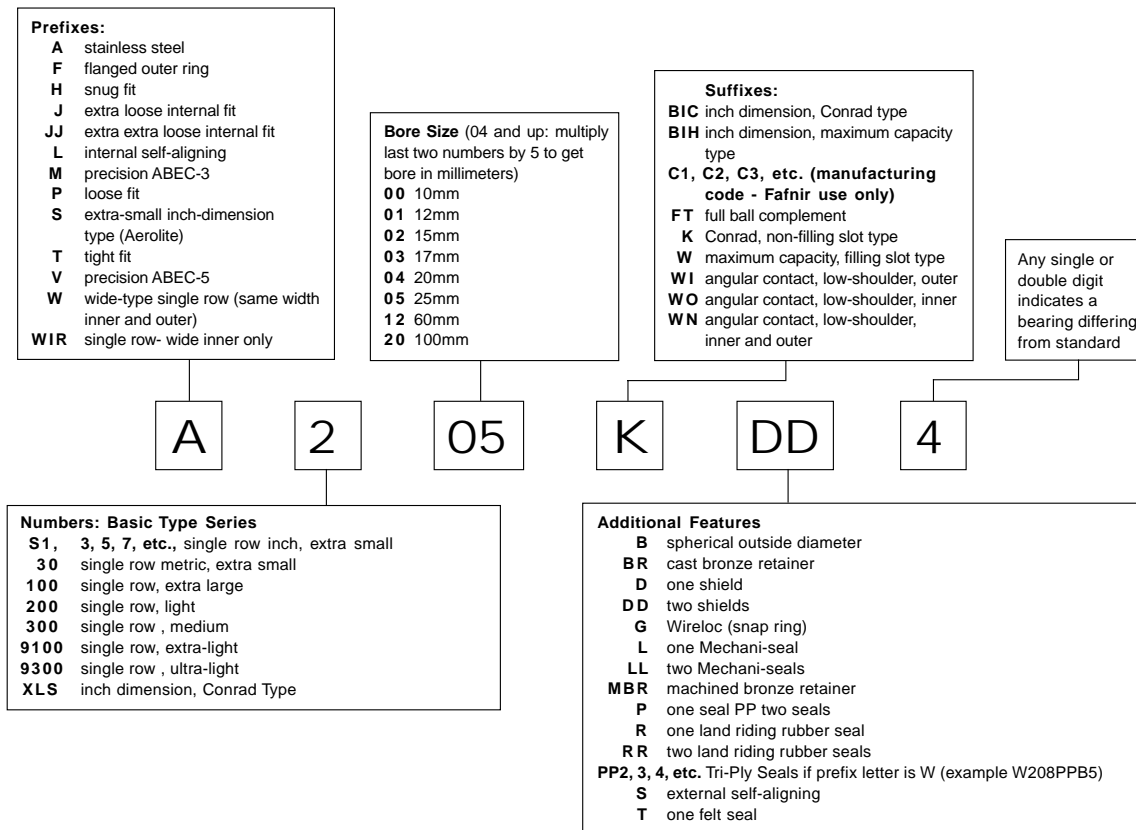
Superprecision Ball Bearings



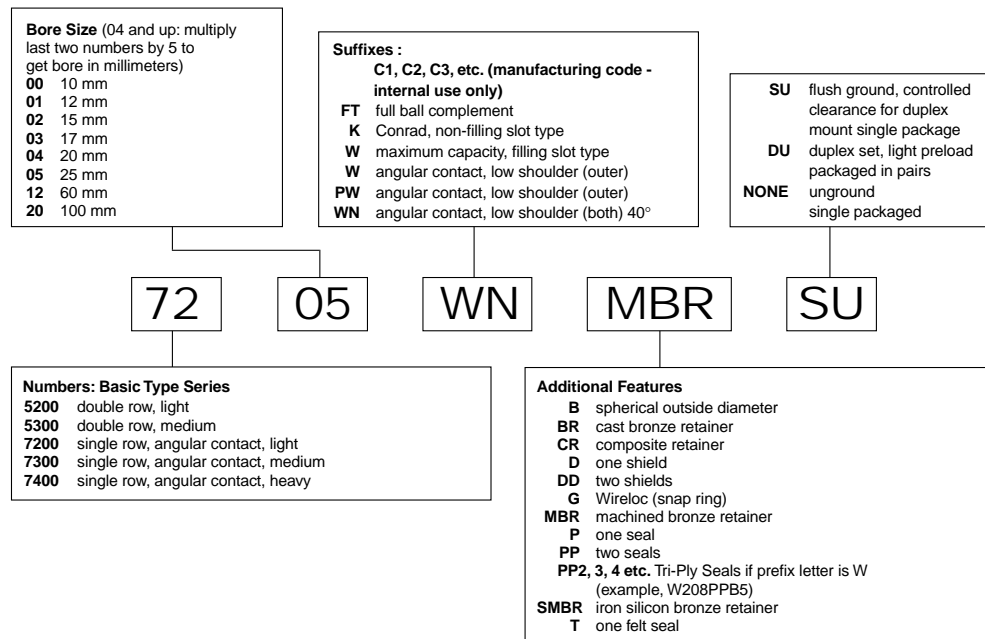
Ballscrew Support Bearings



Radial Bearings



Angular Contact Ball Bearings



Wide Inner Ring Bearings

Prefixes:

Basic Series and Additional Features

C	concentric collar
E	metric bore
G	relubricatable
1	standard series (200 series bearings)
L	light series
M	medium duty setscrew lock series
N	heavy series (300 series bearings)
RA	extended inner ring, one side only
SM	standard series (open type bearings)
SMN	heavy series (open type bearings)
ER, YA	setscrew locking device series

Suffixes:

Internal Construction

K	Conrad, non-filling slot type
W	maximum capacity filling slot type

an example
of a specifica-
tion number
for other than
standard

G1

103

K

RRB

FS385

Numbers:

Last three numbers indicate bore size —
first in inches, last two in sixteenths

015	$\frac{15}{16}$ "
103	1- $\frac{3}{16}$ "
203	2- $\frac{3}{16}$ "
25	25mm(metric)
40	40mm (metric)

Additional Features

G	Wireloc retention for outer ring
L	one Mechani-seal
LL	two Mechani-seals
PP	two seals
R	one land riding rubber seal
RR	two land riding rubber seals
B	spherical outside diameter
S	external self-aligning
TDC	thin dense chrome plate
F	food grade grease
PP2, 3, 4, etc.,	—Tri-Ply seals if preceded by K

Flangetted Housed Units

Prefix:

G relubricatable

Series:

V	extended inner-ring, self-lock collar
S	extended inner-ring, setscrew lock
R	wide inner-ring, self-lock collar
Y	wide inner-ring, setscrew lock

Flangette Type:

RD	round
T	Two Bolt
TR	triangular
SQ	square
BS	base stamp

G

V

RD - 1

Shaft Size: 1 = 1" 35 = 35mm

Cast Iron Housed Units

AK	low base pillow block
AO	heavy series pillow block
AS	high base pillow block
C	cylindrical cartridge
SA	high base
TB	tapped base

*Options:

C	concentric collar
CJ	four bolt mount
CJT	two bolt mount
H	heavy housing
L	expansion unit
TU	take-up unit
M	medium duty

EC	end cover
P	Polymer housing
N	nickel plated housing
T	TDC bearing

R

AK

*

1

NT

L	labyrinth seal with self-locking collar
R	contact shroud seal with self-locking collar
S	contact shroud seal, narrow inner ring, setscrew lock
T	tri-ply shroud seal with self-locking collar
V	contact shroud seal, narrow inner ring, self-locking collar
Y	contact shroud seal, with wide inner ring, setscrew lock

Bore Size
inch $\frac{1}{2}$ " - 2 $\frac{15}{16}$ "
metric 15 - 75

**For your nearest Timken sales representative, call (800) 223-1954.
Outside the U.S. and Canada, call (330) 438-3000.**

Timken US Corporation is a Timken Company subsidiary.
Timken®, and, Fafnir® are registered trademarks of The Timken Company.
www.timken.com

©2003 by The Timken Company
Printed in U.S.A.
5M-8-03 Order No. 5730 (formerly Torrington No. 643)