



**RANDALL**  
INNOVATION IN MOTION



## Randall Bearings, Inc.

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**Randall Bearings, Inc. – Lima**



**Randall Bearings, Inc. – Coldwater**

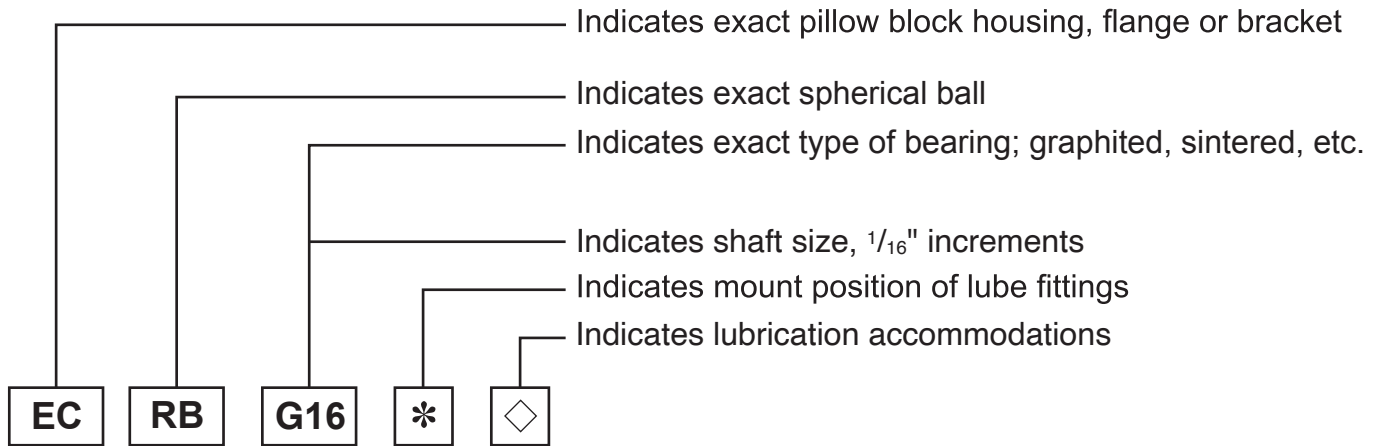





Randall Bearings, Inc. is **ISO 9001 certified** in:

**Manufacture, Assembly, Packaging and Supply** of Custom Machined Parts, Cast Bronze Standard Bushings, Pillow Blocks, Continuous Cast Solid Bronze Bar and Tubular Bronze Bar.



# HOW TO READ THE PRODUCT ASSEMBLY NUMBER



* MOUNT POSITIONS OF LUBE FITTINGS		
PILLOW BLOCKS	H	 LUBE FITTING OUT TOP
	V	 LUBE FITTING OUT SIDE
	B	 LUBE FITTING OUT BOTTOM
	X	WHENEVER MOUNT POSITION IS NOT APPLICABLE

◇ LUBRICATION ACCOMMODATIONS		
OIL NOT PRE-LUBRICATED	A	STANDARD OIL CUP
	E	NO OIL - $\frac{1}{4}$ " HOLE ONLY
	F	NO OIL - $\frac{1}{8}$ " NPT HOLE ONLY
GREASE NOT PRE-LUBRICATED	B	STANDARD GREASE FITTING
	G	NO GREASE FITTING - $\frac{1}{4}$ " HOLE ONLY
	H	NO GREASE FITTING - $\frac{1}{8}$ " NPT HOLE ONLY
PLASTIC E PRELUBRICATED (SHIPPED FILLED WITH PLASTIC E)	N	NO LUBRICATION PROVISION (SINTERED BEARINGS ONLY)
	D	NO FITTING - $\frac{1}{8}$ " NPT HOLE ONLY
	C	$\frac{1}{8}$ " NPT PIPE PLUG INSTALLED
	X	WHENEVER NO SUPPLEMENTAL LUBE ACCOMMODATION IS REQUIRED

# UNIT HOUSING

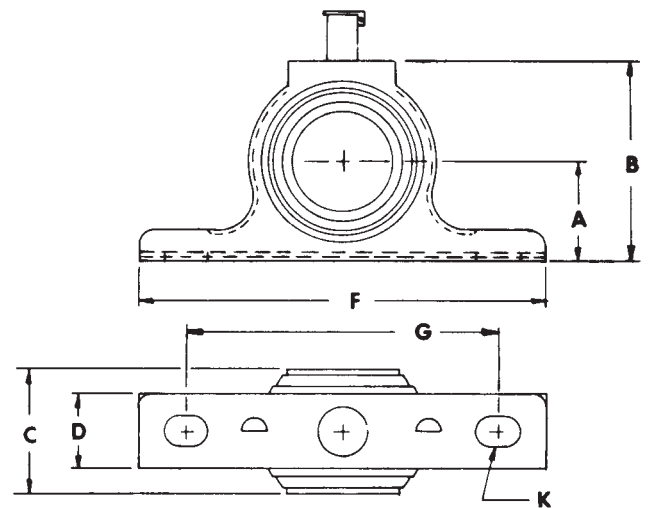
# "G" SERIES

MODEL	STRAP MATERIAL	DIMENSIONAL DATA (INCHES)						
		A	B	C	D	F	G	K
GL	14 GA-STEEL	1 5/8	3 17/64	SEE INDIVIDUAL SHAFT SIZE	1 1/4	5 3/4	4 3/4	1 3/32 X 2 3/32



**RANDALL**

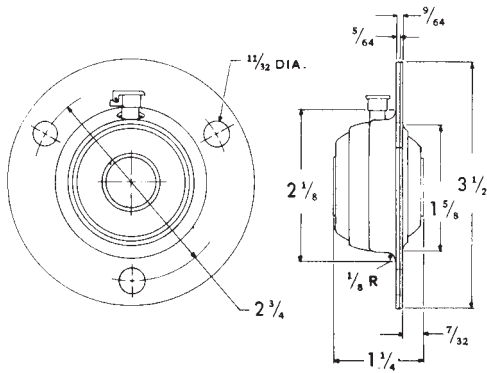
GRAPHITED CAST BRONZE BEARING		
SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH
1 1/4"	GL-NE-G20-HA	2 1/2"
1 5/16"	GL-NE-G21-HA	2 1/2"
1 7/16"	GL-NF-G23-HA	2 1/2"



VARIATIONS												
* MOUNT POSITIONS						◇ LUBE FITTINGS						
MODEL	*	*	*	◇	◇	◇	◇	◇	◇	◇	◇	◇
GL	H	V	B	A	F	B	H	N	D	C		

SEE PAGE 4 FOR DETAILS

STANDARD UNITS ARE OIL LUBRICATED WITH OIL CUP EXTENDED AS SHOWN ABOVE.



MODEL BA

## GRAPHITED CAST BRONZE BEARING

SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH
1"	BA-UR-G16-MA	1 1/4"

## VARIATIONS

\* MOUNT POSITIONS

◇ LUBE FITTINGS

MODEL	*	◇	◇	◇	◇	◇	◇	◇	◇	◇
BA	M	A	E	F	B	G	H	N	D	C

SEE PAGE 4 FOR DETAILS

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# RANDALL



# CAST IRON PILLOW BLOCKS AND SPLIT BEARING PILLOW BLOCKS

## "P" SERIES

### GRAPHITED CAST BRONZE BEARING

SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH	SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH
3/4"	PB-NC-G12-HA	1 1/2"	1 7/16"	PE-NF-G23-HA	2 1/2"
7/8"	PB-NC-G14-HA	1 1/2"	1 1/2"	PE-NF-G24-HA	2 1/2"
1 5/16"	PB-NB-G15-HA	1 1/2"	2"	PJ-NJ-G32-HA	5"
1"	PB-NB-G16-HA	1 1/2"	2 3/16"	PJ-NJ-G35-HA	5"
1 3/16"	PC-ND-G19-HA	2"			
1 1/4"	PE-NE-G20-HA	2 1/2"			
1 5/16"	PE-NE-G21-HA	2 1/2"			

### DIMENSIONAL DATA (INCHES)

MODEL	A	B	C	D	E	F	G	H	J	K	L
PB	1 3/8	2 3/4	1 1/2	1 1/4	1	5 3/8	4 3/8	3 1/8	5/16	7/16	5/8
PC	1 5/8	3 1/8	2	1 1/2	1 5/16	5 7/8	4 3/4	3 5/8	3/8	7/16	9/16
PE	2	3 11/16	2 1/2	1 3/4	1 9/16	7 3/16	6	4 1/16	1/2	9/16	3/4
PG	2 3/8	4 5/8	4	2 1/4	1 7/8	8 3/4	6 5/8	5 1/4	9/16	9/16	1
PJ	2 3/4	5 3/8	5	2 13/16	2 1/2	11 1/4	9 1/4	6 1/2	3/4	7/8	1 1/8
PK	3 1/8	6 7/32	6	3 1/16	2 3/4	12 3/16	10	7 5/16	15/16	7/8	1 5/16

### VARIATIONS

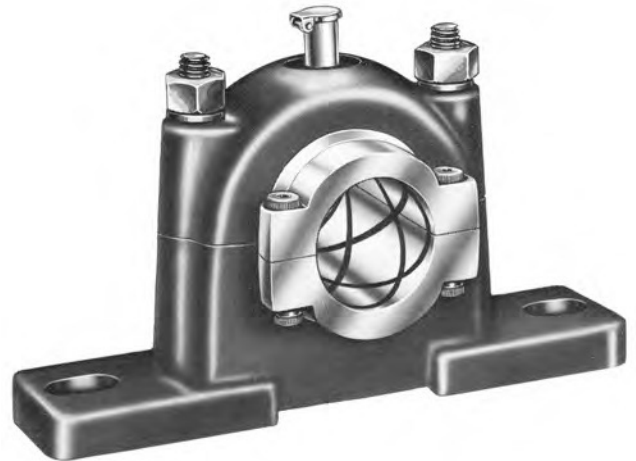
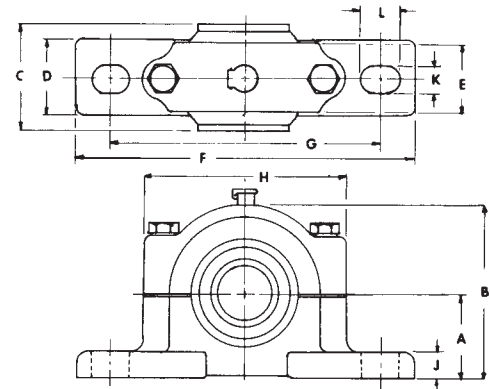
MODEL	* Mount Positions	◇ Lube Fittings	◇	◇	◇	◇	◇
PB	H	A	F	B	H	D	C
PC	H	A	F	B	H	D	C
PE	H	A	F	B	H	D	C
PG	H	A	F	B	H	D	C
PH	H	A	F	B	H	D	C
PJ	H	A	F	B	H	D	C
PK	H	A	F	B	H	D	C

SEE PAGE 4 FOR DETAILS

NOTE: These models contain identical cast iron housings with bronze split bearing cartridges. (As shown.)

All contain graphited bronze split bearing cartridges which may be replaced with ease in all models without removing the shaft.

SPLIT BEARING PILLOW BLOCK



### GRAPHITED CAST BRONZE BEARING

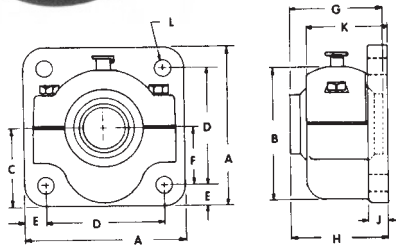
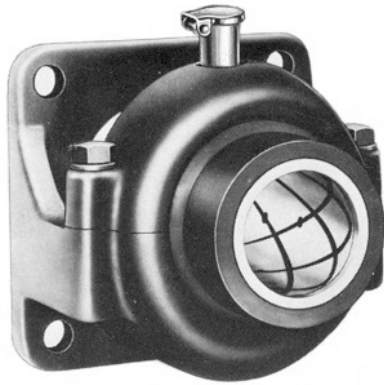
SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH	SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH
1"	PC-LA-G16-HA	2 5/8"	1 3/4"	PG-LH-G28-HA	4 1/2"
1 3/16"	PC-LC-G19-HA	2 5/8"	2 3/16"	PJ-LL-G35-HA	5 1/2"
1 1/4"	PC-LD-G20-HA	2 5/8"	2 7/16"	PK-LM-G39-HA	6"
1 7/16"	PE-LE-G23-HA	3"	2 11/16"	PK-LN-G43-HA	6"
1 1/2"	PE-LF-G24-HA	3"			
1 11/16"	PG-LG-G27-HA	4 1/2"			

- Readily available replacement cartridges may be installed with ease.
- Matched halves are precision doweled.



STANDARD UNITS ARE OIL LUBRICATED WITH OIL CUP EXTENDED AS SHOWN ABOVE.

# "R & S" SERIES Cast Iron Flange Bearing & Split Flange Bearing



VARIATIONS							
* Mount Positions				◇ Lube Fittings			
MODEL	*	◇	◇	◇	◇	◇	◇
RB	M	A	F	B	H	D	C
RC	M	A	F	B	H	D	C
RE	M	A	F	B	H	D	C
RF	M	A	F	B	H	D	C
RG	M	A	F	B	H	D	C
RH	M	A	F	B	H	D	C

SEE PAGE 4 FOR DETAILS

VARIATIONS							
* Mount Positions				◇ Lube Fittings			
MODEL	*	◇	◇	◇	◇	◇	◇
SA	M	A	F	B	H	D	C
SB	M	A	F	B	H	D	C
SC	M	A	F	B	H	D	C
RH	M	A	F	B	H	D	C

SEE PAGE 4 FOR DETAILS

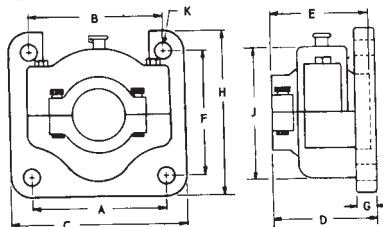
MODEL	DIMENSIONAL DATA (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
RB	3 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	1 <sup>31</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	2	2 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>32</sub>	2 <sup>1</sup> / <sub>16</sub>	2 <sup>29</sup> / <sub>64</sub>
RC	4 <sup>5</sup> / <sub>16</sub>	3 <sup>23</sup> / <sub>32</sub>	2 <sup>5</sup> / <sub>32</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>32</sub>	1 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>32</sub>	2 <sup>3</sup> / <sub>16</sub>	2 <sup>29</sup> / <sub>64</sub>
RE	4 <sup>5</sup> / <sub>8</sub>	4	2 <sup>5</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	1 <sup>13</sup> / <sub>16</sub>	3	3 <sup>5</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>32</sub>	2 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>64</sub>
RF	5 <sup>3</sup> / <sub>8</sub>	4 <sup>29</sup> / <sub>32</sub>	2 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>2</sub>	4 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	3 <sup>21</sup> / <sub>32</sub>	3 <sup>7</sup> / <sub>64</sub>
RG	5 <sup>5</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>16</sub>	2 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>16</sub>	5	5 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>16</sub>	4	3 <sup>7</sup> / <sub>64</sub>
RH	6 <sup>1</sup> / <sub>2</sub>	5 <sup>7</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>32</sub>	2 <sup>19</sup> / <sub>32</sub>	5	5 <sup>3</sup> / <sub>8</sub>	1 <sup>11</sup> / <sub>16</sub>	4 <sup>1</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>64</sub>

GRAPHITED CAST BRONZE BEARING					
SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH	SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH
3/4"	RB-MB-G12-MA	2"	1 <sup>7</sup> / <sub>16</sub> "	RE-MG-G23-MA	3"
7/8"	RB-MB-G14-MA	2"	1 <sup>1</sup> / <sub>2</sub> "	RF-MH-G24-MA	4 <sup>1</sup> / <sub>2</sub> "
1 <sup>5</sup> / <sub>16</sub> "	RB-MC-G15-MA	2"	1 <sup>11</sup> / <sub>16</sub> "	RF-MH-G27-MA	4 <sup>1</sup> / <sub>2</sub> "
1"	RB-MC-G16-MA	2"	1 <sup>3</sup> / <sub>4</sub> "	RF-MH-G28-MA	4 <sup>1</sup> / <sub>2</sub> "
1 <sup>3</sup> / <sub>16</sub> "	RC-MF-G19-MA	2 <sup>1</sup> / <sub>2</sub> "	1 <sup>5</sup> / <sub>16</sub> "	RG-MK-G31-MA	5"
1 <sup>1</sup> / <sub>4</sub> "	RE-MG-G20-MA	3"	2"	RH-NJ-G32-MA	5"
1 <sup>5</sup> / <sub>16</sub> "	RE-MG-G21-MA	3"	2 <sup>3</sup> / <sub>16</sub> "	RH-NJ-G35-MA	5"

MODEL	DIMENSIONAL DATA (INCHES)									
	A	B	C	D	E	F	G	H	J	K
SA	3 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	2 <sup>11</sup> / <sub>16</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	2 <sup>29</sup> / <sub>64</sub>
SB	3 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>16</sub>	3	3 <sup>5</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>64</sub>
SC	4 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>4</sub>	6 <sup>5</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>	5 <sup>7</sup> / <sub>16</sub>	4 <sup>7</sup> / <sub>8</sub>	3 <sup>7</sup> / <sub>64</sub>
RH	SEE RH IN ABOVE CHART									



**Split Flange Bearing**



GRAPHITED CAST BRONZE BEARING					
SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH	SHAFT SIZE	ASSEMBLY NUMBER STD. LUBE	BEARING LENGTH
1"	SA-LA-G16-MA	2 <sup>5</sup> / <sub>8</sub> "	1 <sup>11</sup> / <sub>16</sub> "	SC-LG-G27-MA	4 <sup>1</sup> / <sub>2</sub> "
1 <sup>3</sup> / <sub>16</sub> "	SA-LC-G19-MA	2 <sup>5</sup> / <sub>8</sub> "	1 <sup>3</sup> / <sub>4</sub> "	SC-LH-G28-MA	4 <sup>1</sup> / <sub>2</sub> "
1 <sup>1</sup> / <sub>4</sub> "	SA-LD-G20-MA	2 <sup>5</sup> / <sub>8</sub> "	2 <sup>3</sup> / <sub>16</sub> "	RH-LL-G35-MA	5 <sup>1</sup> / <sub>2</sub> "
1 <sup>7</sup> / <sub>16</sub> "	SB-LE-G23-MA	3"			
1 <sup>1</sup> / <sub>2</sub> "	SB-LF-G24-MA	3"			



All contain graphited bronze split bearing cartridges which may be replaced with ease in all models without removing the shaft.

MATCHED HALVES ARE PRECISION DOWELED.

"S" SERIES housings are designed with the cross bar on the flange eliminated in order that the entire assembly may be installed anywhere along a shaft without shaft removal.

2<sup>3</sup>/<sub>16</sub>" SHAFT SIZE UTILIZES STANDARD "R" SERIES HOUSING WITH CROSS BAR ON THE FLANGE.

**STANDARD UNITS ARE OIL LUBRICATED WITH OIL CUP EXTENDED AS SHOWN ABOVE.**



## PLASTIC "E" LUBRICANT TUBES



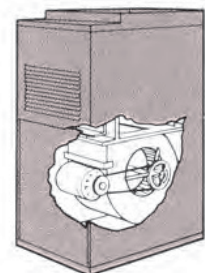
Randall bearings pre-lubricated with PLASTIC "E" are customarily furnished with 1/8" pipe plug in the ball assembly. If necessary to replenish the supply of lubricant, collapsible tubes of PLASTIC "E" are available. NOTE: The special lubricant should be used only on bearing modified for its use.



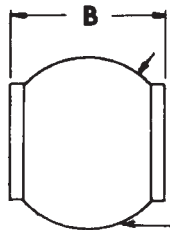
# RANDALL

## BEARING KITS

KIT NO.	SHAFT SIZE	LUBRICATION
1	5/8"	OIL
4	5/8"	PERMANENT TYPE
5	5/8"	OIL
8	5/8"	PERMANENT TYPE
9	1"	OIL
11	3/4"	PERMANENT TYPE
12	1"	PERMANENT TYPE
13	1"	OIL
14	1"	OIL
15	1"	PERMANENT TYPE
16	1"	PERMANENT TYPE



# BEARING CARTRIDGES



The following cartridges may be ordered by number. These are standard cartridges which are also incorporated in standard pillow blocks on the preceding pages.



**RANDALL**

CAST IRON CARTRIDGE SERIES	SHAFT SIZE	CARTRIDGE ASSEMBLY NUMBER	DIMENSIONAL DATA	
			A SPHERICAL DIAMETER	B LENGTH
<b>N</b>	$\frac{3}{4}$	XX-NC-G12-XA	2	$1\frac{1}{2}$
	$\frac{7}{8}$	XX-NC-G14-XA	2	$1\frac{1}{2}$
	$\frac{15}{16}$	XX-NB-G15-XA	2	$1\frac{1}{2}$
	1	XX-NB-G16-XA	2	$1\frac{1}{2}$
	$1\frac{1}{16}$	XX-ND-G19-XA	$2\frac{3}{8}$	2
	$1\frac{1}{4}$	*XX-NE-G20-XA	$2\frac{5}{8}$	$2\frac{1}{2}$
	$1\frac{5}{16}$	*XX-NE-G21-XA	$2\frac{5}{8}$	$2\frac{1}{2}$
	$1\frac{7}{16}$	*XX-NF-G23-XA	$2\frac{5}{8}$	$2\frac{1}{2}$
	$1\frac{1}{2}$	*XX-NF-G24-XA	$2\frac{5}{8}$	$2\frac{1}{2}$
	$1\frac{3}{4}$	XX-NG-G28-XA	$3\frac{3}{8}$	4
	2	XX-NJ-G32-XA	$4\frac{1}{4}$	5
	$2\frac{3}{16}$	XX-NJ-G35-XA	$4\frac{1}{4}$	5

STEEL CARTRIDGE SERIES	SHAFT SIZE	CARTRIDGE ASSEMBLY NUMBER	DIMENSIONAL DATA	
			A SPHERICAL DIAMETER	B LENGTH
<b>M</b>	$\frac{3}{4}$	XX-MB-G12-XA	$2\frac{3}{8}$	2
	$\frac{7}{8}$	XX-MB-G14-XA	$2\frac{3}{8}$	2
	$\frac{15}{16}$	XX-MC-G15-XA	$2\frac{3}{8}$	2
	1	XX-MC-G16-XA	$2\frac{3}{8}$	2
	$1\frac{1}{16}$	XX-MF-G19-XA	$2\frac{5}{8}$	$2\frac{1}{2}$
	$1\frac{1}{4}$	XX-MG-G20-XA	$3\frac{1}{4}$	3
	$1\frac{5}{16}$	XX-MG-G21-XA	$3\frac{1}{4}$	3
	$1\frac{7}{16}$	XX-MG-G23-XA	$3\frac{1}{4}$	3
	$1\frac{1}{2}$	XX-MH-G24-XA	$3\frac{3}{4}$	$4\frac{1}{2}$
	$1\frac{11}{16}$	XX-MH-G27-XA	$3\frac{3}{4}$	$4\frac{1}{2}$
	$1\frac{3}{4}$	XX-MH-G28-XA	$3\frac{3}{4}$	$4\frac{1}{2}$
	$1\frac{5}{16}$	XX-MK-G31-XA	4	5
<b>L</b>	1	XX-LA-G16-XA	$2\frac{3}{8}$	$2\frac{5}{8}$
	$1\frac{3}{16}$	XX-LC-G19-XA	$2\frac{3}{8}$	$2\frac{5}{8}$
	$1\frac{1}{4}$	XX-LD-G20-XA	$2\frac{3}{8}$	$2\frac{5}{8}$
	$1\frac{7}{16}$	XX-LE-G23-XA	$2\frac{5}{8}$	3
	$1\frac{1}{2}$	XX-LF-G24-XA	$2\frac{5}{8}$	3
	$1\frac{11}{16}$	XX-LG-G27-XA	$3\frac{3}{8}$	$4\frac{1}{2}$
	$1\frac{3}{4}$	XX-LH-G28-XA	$3\frac{3}{8}$	$4\frac{1}{2}$
	$2\frac{3}{16}$	XX-LL-G35-XA	$4\frac{1}{4}$	$5\frac{1}{2}$
	$2\frac{7}{16}$	XX-LM-G39-XA	$4\frac{11}{16}$	6
	$2\frac{11}{16}$	XX-LN-G43-XA	$4\frac{11}{16}$	6

## PLEASE NOTE:

The last letter of each assembly number indicates the standard lubrication provided.  
Page 4 illustrates the code letter in detail.

\*NE and NF BALLS ARE STEEL

VARIATIONS										
* Mount Positions    ◇ Lube Fittings										
MODEL	*	◇	◇	◇	◇	◇	◇	◇	◇	◇
YW	X	N								
VUSX	X	A	E	F	B	G	H	N	D	C
QPNML	X	A	F	B	H	D	C			
K	X	X								
SEE PAGE 4 FOR DETAILS										



## Bearing Material Specifications

Randall Sleeve Bearing Pillow Blocks are available with the following bearing materials.

## CAST BRONZE SPECIFICATIONS

	CHEMICAL	PERCENTAGES	
		MINIMUM	MAXIMUM
Randall graphited pillow block bearing bronze is produced in accordance with this specification and is designated as Randall S-1 bronze. S-1 is equivalent to SAE CA 932; CDA 932; ASTM B 505-932; QQ-C 390 ALLOY E7	COPPER	81.00	85.00
	TIN	6.25	7.50
	LEAD	6.00	8.00
	ZINC	2.00	4.00
	NICKEL	.00	.50
	IRON	.00	.20
	ALUMINUM	.00	.005
	SILICON	.00	.005
	PHOSPHORUS	.00	.15
	ANTIMONY	.00	.35
PHYSICAL			
TENSILE STRENGTH.....30,000 PSI MINIMUM			
YIELD STRENGTH .....20,000 PSI MINIMUM			
% ELONGATION .....12% MINIMUM			
HARDNESS.....ROCKWELL E 58			
DENSITY ..... .316-.320 LB/in <sup>3</sup>			
DESIGN DATA			
MAXIMUM UNIT PRESSURE LOAD ..... 4,000 PSI			
COMPREHENSIVE STRENGTH (1/8" SAMPLE)..... 30,000 PSI			
(PERMANENT SET .001")			
COMPREHENSIVE STRENGTH (1" SAMPLE)..... 18,000 PSI			
(PERMANENT SET .001")			
MODULUS OF ELASTICITY ..... 12 x 10 <sup>6</sup> PSI			
CO-EFFICIENT OF THERMAL EXPANSION..... 10 x 10 <sup>-6</sup> IN/IN/DEG F			

These dependable bearing have been serving industry for many years, with millions in operation today. Randall pioneered their development and has improved them to their present dependable state. Randall graphited cast bronze provides the safety of double lubrication that allows for occasional maintenance error and reduces early failure. Graphite geed pugs meter the precise amount of lubricant required for full-film hydrodynamic lubrication and the graphited grooves insure even distribution throughout the bore. All bore sizes are held to a precision tolerance of .0008 inch.

## SINTERED BRONZE SPECIFICATIONS

	CHEMICAL	PERCENTAGES	
		MINIMUM	MAXIMUM
	COPPER	86.25	90.50
TIN	9.50	10.50	

PHYSICAL	
ULTIMATE TENSILE STRENGTH.....	13,000 PSI
YIELD POINT IN COMPRESSION (0.2% OFFSET).....	16,500 PSI
ELONGATION (% IN ONE INCH) .....	2.5
POROSITY (% MINIMUM) .....	18
ROCKWELL HARDNESS .....	H-50

Randall also provides economical sintered bronze bearing pillow blocks. The porous bronze wall feeds the lubricant directly to the bore from Randall's DEEP-WELL reservoirs, metering lubricant flow according to need. Available at lower cost, sintered bronze bearing pillow blocks are excellent for innumerable applications where double lubrication is not essential. All sintered bearing bores are sized to within .0012 inch.

Randall sintered pillow block bearings are of the finest quality sintered bronze produced for pillow block use.

Equivalent specifications are ASTM B438-73, GRADE 1 TYPE 2; and SAE 841 (old #SAE TYPE 1, CLASS A)

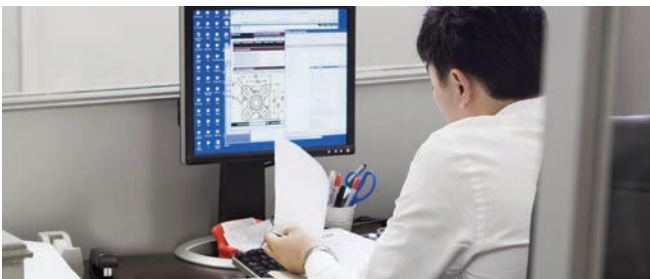


## RANDALL

### Shafting Recommendations

The shaft should be round and straight, free from rust, scale, nicks or burrs. Improved surface finishes such as from grinding and polishing, or burnishing in the bearing area, result in longer life and better operating characteristics. The bore sizes in Randall bearings are determined to provide proper running clearance when used with shafting of recognized commercial tolerances. The use of premium grade shafting allows clearance equal to that recommended for precision spindle practice, while regular shafting allows clearance equal to that used for general machine parts.

Premium shafting is recommended for all applications and is MANDATORY for all applications utilizing PLASTIC "E" LUBRICATION.



#### Premium Shafting

##### FINISH

Ground and Polished 16 Micro-Inch or Better

**TOLERANCE** PLUS .000 MINUS .001 Up thru 1 1/2"  
PLUS .000 MINUS .0015 1 9/16" thru 2 7/16"  
PLUS .000 MINUS .002 2 1/2" thru 2 11/16"

#### Regular Shafting

##### FINISH

Smooth and Clean

**TOLERANCE** PLUS .000 MINUS .002 Up thru 1"  
PLUS .000 MINUS .003 1 1/16" thru 2"  
PLUS .000 MINUS .004 2 1/16" thru 2 11/16"

#### Randall standard bore tolerances

OTHER CLEARANCES AND TOLERANCES  
AVAILABLE TO CUSTOMER SPECIFICATION

SINTERED BRONZE BEARINGS STANDARD FINISHED CORE TOLERANCE	NORMAL SHAFT SIZE	GRAPHITED CAST BRONZE BEARINGS STANDARD FINISHED BORE TOLERANCE
.2506/ .2503	1/4	
.3131/ .3128	5/16	
.3757/ .3754	3/8	
.4382/ .4379	7/16	
.5017/ .5005*	1/2	.5013/ .5005
.6267/ .6255**	5/8	.6263/ .6255
.7520/ .7508	3/4	.7516/ .7508
.8770/ .8758	7/8	.8766/ .8758
.9395/ .9398	15/16	.9391/ .9398
1.0020/ 1.0008	1	1.0016/ 1.0008
1.1895/ 1.1883	1 3/16	1.1891/ 1.1883
1.2522/ 1.2510	1 1/4	1.2518/ 1.2510
	1 5/16	1.3143/ 1.3135
	1 7/16	1.4393/ 1.4385
	1 1/2	1.5023/ 1.515
	1 11/16	1.6898/ 1.6890
	1 3/4	1.7523/ 1.7515
	1 15/16	1.9400/ 1.9392
	2	2.0028/ 2.0020
	2 3/16	2.1903/ 2.1895
	2 7/16	2.4405/ 2.4397
	2 11/16	2.6905/ 2.6897

\*MINIATURE IS .5010/.5005

\*\*MINIATURE IS .6261/.6256

CONSULT RANDALL'S ENGINEERING STAFF FOR YOUR PARTICULAR NEEDS

ISO 220 Grade Oil used in pillow blocks  
Bolt torque = 50 inch-pounds for cap tightening

# **OIL OR GREASE LUBRICATION RECOMMENDATIONS**

## **OIL LUBRICATED BEARINGS**

Randall oil lubricated bearings leave the factory with a minimum amount of oil suited to normal conditions in their large, felt-packed reservoirs. It is mandatory that oil be added to the bearing before operation begins and that the oil cup be refilled several times during the first few days to bring the oil reserve up to near capacity. When this condition has been reached, it is unnecessary to add any more oil for approximately 1,000 hours of operation, barring of course, high bearing temperatures which might prematurely exhaust the supply.

It is advisable to make a few checks for excessive bearing temperatures during the first maintenance periods since this will show whether the bearing is getting sufficient lubrication, as well as reveal signs of improper operating conditions or faulty installation.

Oil drippage will often result from over oiling or from using too light an oil; detergent additives also promote this undesirable action. Should this condition prevail in spite of close adherence to the lubricating instructions, it would be permissible under the circumstances, to apply the next heavier weight oil of the same grade without damaging the bearing. We recommend the use of industrial type mineral oils or automotive crankcase oils, excepting those designated detergent, heavy duty or compounded.

For given operating temperatures, the viscosities should correspond to the specifications of the SAE for the ranges listed below:

80° - 100° F SAE 50

40° - 70° F SAE 30

0° - 30° F SAE 10W

-30° - 0° F Low Temperature Oil, Texaco Capella B or equivalent

## **GREASE LUBRICATED BEARINGS**

When grease lubrication is preferred, specify "For Grease Lubrication" on your order. Such bearings must be specifically modified at the factory and are supplied with a standard hydraulic grease fitting. Conventional pressure gun type greases suited to the operating conditions are satisfactory. These bearings are not pre-lubricated by Randall, and lubricant must be added.



# **RANDALL**