

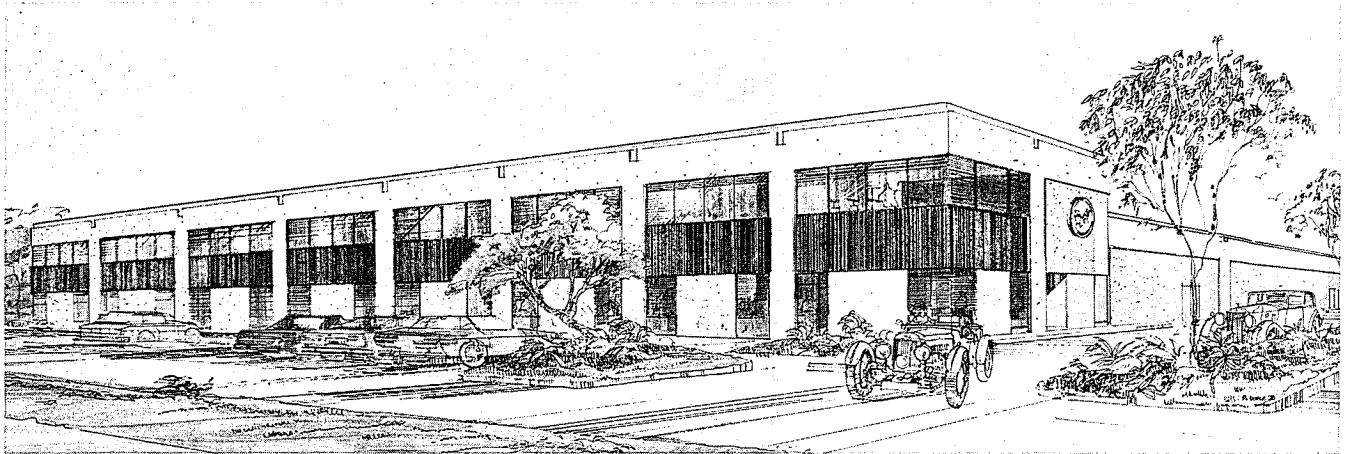
Meet the Growing SOUTHWEST Family of

SPECIAL PRODUCTS

for

SPECIAL NEEDS

® "Monoball," "Dyflon" are registered trade names and are patented and pat. applied for with all world rights reserved.



SOUTHWEST PRODUCTS CO. new large headquarters, the largest in the west devoted to the manufacture of Monoball® bearings and rod end bearings. It is staffed and equipped to render immediate consultation to you for special applications of our products, and for design and development service on new products to serve related problems. Your inquiry is invited.

GROWTH through specialization and superiority! From the original MONOBALL® bearing to a family of products so high in performance that thousands are now in use in the nation's leading aircraft and missiles! That's the story of SOUTHWEST'S growth since 1945 . . . and it's just a hint of the greater growth expected in the years ahead.

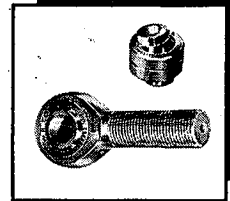
SOUTHWEST PRODUCTS CO.

P.O. BOX 1028 • MONROVIA, CALIFORNIA 91016

(213) 681-9616 • (818) 358-0181

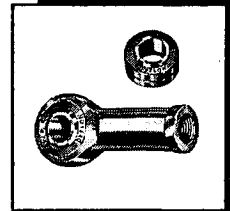
MONOBALL®

Self-aligning Spherical Bearings . . . plain and rod end types. Stainless steel, chrome and other metals. For severe conditions of high temperatures, vibration and high radial loads up to 893,000 lbs. U. S. Pat. No. 2,626,481.



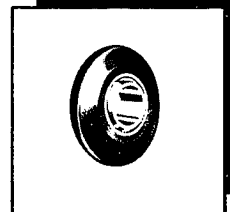
DYFLON®

Self-aligning and self-lubricating Spherical Bearings. Combine MONOBALL® engineering advantages with DYFLON® plastic alloy insert for life-time lubrication. No cold-flow. Impervious to known chemical solvents.



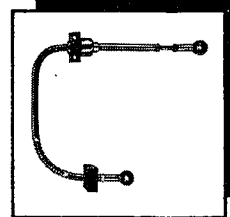
SHOCK MOUNT

Resilient shock - absorbing rubber contour - molded to outer race of our "DYFLON"® "MONOBALL"® self-aligning self-lubricating bearings results in longer life engine mounts. Load ratings from 200 to 5,000 lbs. Sizes range from 5/16" to 1" bore diameter. Larger sizes on special order. Ask for Bulletin No. 1262.



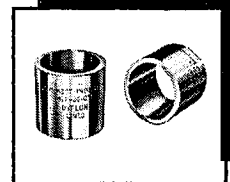
PUSH-PULL CONTROLS

Mechanical. Compression and tension type. Positive remote controls for actuating mechanical, hydraulic, other devices. Three sizes with Ult. Load 3050 lbs.; Ult. tension to 3900 lbs. U. S. Pat. No. 2,441,719. Write for Bulletin No. 1551.



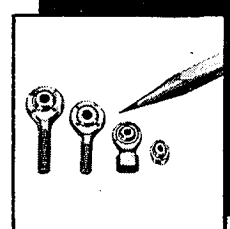
DYFLON® BUSHINGS

Self-lubricating, plain journal bushings. Stainless steel with DYFLON® plastic alloy insert. Capable of dynamic loads to 25,000 psi and static yield loads to 50,000 psi at low rotational speed without damage. Ask for Bulletin No. 1060.



MINIATURES

Ultra-precision, miniature self-aligning MONOBALL® spherical plain bearings and rod ends in corrosion resistant steels. Bore sizes from .046" to .156" with ultimate static load ratings from 225 lbs. to 2550 lbs. For maximum performance in compact, light weight assemblies. Ask for Bulletin No. 461.



ALL OF OUR PLAIN SELF-ALIGNING "MONOBALL"® BEARINGS AND "DYFLON"® PLASTIC ALLOY LINED BEARINGS ARE MANUFACTURED UNDER THE FOLLOWING UNITED STATES PATENTS AND FOREIGN PATENTS:

U. S. PATENT NOS.

2,441,719	2,813,731	3,193,910
2,626,841	2,921,803	3,243,239
2,728,975	3,261,624	3,531,145
2,724,172	2,852,853	3,771,384
2,894,789	3,116,539	3,765,733
2,804,679	3,085,312	

FOREIGN PATENTS

BELGIUM

640,638
692,574
730,750

CANADA

604,699
874,322
903,459
821,435

FRANCE

1,007,585
1,347,169
6,909,390

GERMANY

1,205,799

GREAT BRITAIN

1,275,647
945,930
734,439

ITALY

526,903
867,611
693,196

JAPAN

639,151
1,228,987

SWEDEN

219,864
176,525
350,579

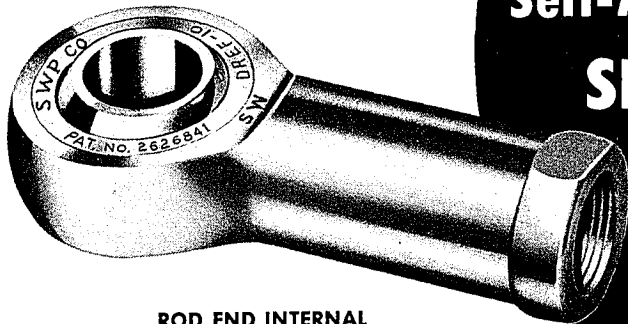


SOUTHWEST PRODUCTS CO.

MONROVIA, CALIFORNIA



"LFN" SERIES



ROD END INTERNAL
THREAD TYPE "DREF" SERIES



"Dyflon"[®]

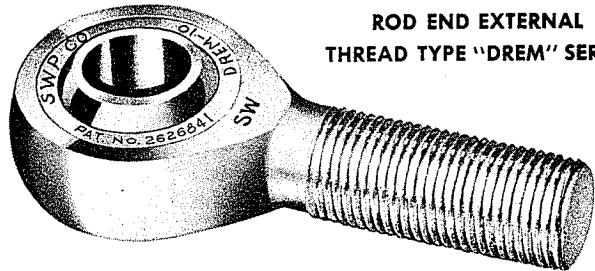
Self-Aligning and Self-Lubricating SPHERICAL BEARINGS

Combine "Monoball"[®]
Engineering Advantages
with
Life-Time Lubrication

Design engineers in many industries are specifying new "DYFLON"[®] SELF-ALIGNING and SELF-LUBRICATING SPHERICAL BEARINGS for these 5 major reasons:

1. LOWER COEFFICIENT OF FRICTION
... ideal where lubrication is impossible or undesirable.
2. WITHSTAND EXTREME VIBRATION... perfect performance under shock load conditions.
3. WILL NOT "COLD-FLOW"... even under extreme load conditions.
4. IMPERVIOUS TO KNOWN CHEMICAL SOLVENTS
... eliminates corrosion problems.
5. FAIL SAFE... due to "Monoball"[®] design.

In addition, due to their two piece "MONOBALL"[®] design and plastic alloy insert, "DYFLON"[®] bearings have a long cycle life, high static capacity, and are capable of oscillation or rotation at extremely high dynamic loads. This new dynamic capability permits a reduced envelope where rotational loading is critical, while providing longer life. Structural bending stresses and actuator forces are reduced. Alignment and installation problems are minimized. Oil-free for life means lowest possible maintenance costs.



ROD END EXTERNAL
THREAD TYPE "DREM" SERIES



"LFR" SERIES

Available in a variety of plain or rod end types. Bore sizes to 6.000". Materials include stainless steel, plastic alloys and chrome alloy steels. Ultimate static loads to 4,600,000 lbs.



SOUTHWEST PRODUCTS CO.
P.O. BOX 1028 • MONROVIA, CALIFORNIA 91016
(213) 681-9616 • (818) 358-0181

CONTENTS

DESCRIPTION	A
DESIGN CRITERIA	B
INSTRUCTIONS	C
MONOBALL GROOVED SERIES DATA	D
SELF-ALIGNING "MONOBALL"® PLAIN BEARINGS:	
STANDARD	1
STANDARD	2
STANDARD	3
STANDARD	4
STANDARD	5
STANDARD	6
STANDARD	7
STANDARD	8
STANDARD	9
STANDARD	10
STANDARD	11
NARROW	12
NARROW	13
NARROW	14
NARROW	15
NARROW	16
NARROW	17
NARROW	18
NARROW	19
NARROW	20
NARROW	21
NARROW	22
NARROW	23
EXTERNALLY THREADED	24
EXTERNALLY THREADED	25
EXTERNALLY THREADED SALT WATER IMMERSION	26
EXTERNALLY THREADED	27
THRUST	28
THRUST	29
STANDARD "4"	30
STANDARD "4"	31
STANDARD "4"	32
STANDARD "4"	33
STANDARD "4"	34
STANDARD "4"	35
STANDARD "4"	36
STANDARD "4"	37
STANDARD "4"	38
STANDARD "4"	39
STANDARD "4"	40
STANDARD "4"	41
STANDARD "4"	42
HIGH MISALIGNMENT	43
HIGH MISALIGNMENT	44
HIGH MISALIGNMENT	45
HIGH MISALIGNMENT	46
HIGH MISALIGNMENT	47
HIGH MISALIGNMENT	48
HIGH MISALIGNMENT	49
HIGH MISALIGNMENT	50
HIGH MISALIGNMENT	51
STANDARD	52
NARROW	53
NARROW	54
..... (MIL-B-81936)	55
NARROW	56
..... (MS-21155B AND MS-21154B)	57
NARROW	58
..... (MS-21155S AND MS-21154S)	59

SOUTHWEST PRODUCTS CO.

MONROVIA, CALIFORNIA

SELF-ALIGNING "MONOBALL"® ROD END BEARINGS:

EXTERNALLY THREADED

STANDARD	"L" SERIES — BRONZE OUTER RACE—ROD END	60
STANDARD	"SS" SERIES — STAINLESS STEEL OUTER RACE—ROD END	61
STANDARD	ALL CRES "HT" SERIES — HIGH TEMPERATURE—ROD END	62
STANDARD	"LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	63
STANDARD	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	64
STANDARD	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	65
STANDARD	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	66
HEAVY DUTY	"L" SERIES — BRONZE OUTER RACE—ROD END	67
HEAVY DUTY	"SS" SERIES — STAINLESS STEEL OUTER RACE—ROD END	68
HEAVY DUTY	ALL CRES "HT" SERIES — HIGH TEMPERATURE—ROD END	69
STANDARD	SALT WATER IMMERSION SERIES — ALL STAINLESS STEEL—ROD END	70
HEAVY DUTY	"SWRM-100" SERIES — HIGH STRUCTURAL CAPACITY—ROD END	71
HEAVY DUTY	"LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	72
HEAVY DUTY	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	73
HEAVY DUTY	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	74
EXTRA HEAVY DUTY	ALL CRES "EHD" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	75
EXTRA HEAVY DUTY	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	76
EXTRA HEAVY DUTY	"SWDRM" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	77
"2" PIECE HEAVY DUTY	"HD" SERIES — HEAVY DUTY—ROD END	78
"2" PIECE HEAVY DUTY	"HT" SERIES — HIGH TEMPERATURE—ROD END	79
"2" PIECE HEAVY DUTY	"SWRM" SERIES — HIGH STRUCTURAL CAPACITY—ROD END	80
"2" PIECE HEAVY DUTY	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	81
HIGH MISALIGNMENT	"L" SERIES — BRONZE OUTER RACE—ROD END	82
HIGH MISALIGNMENT	"SS" SERIES — STAINLESS STEEL OUTER RACE—ROD END	83
HIGH MISALIGNMENT	ALL CRES "HT" SERIES — HIGH TEMPERATURE—ROD END	84
HIGH MISALIGNMENT	"LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	85
HIGH MISALIGNMENT	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	86
HIGH MISALIGNMENT	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	87
"2" PIECE HIGH MISALIGNMENT	"HD" SERIES — HEAVY DUTY—ROD END	88
"2" PIECE HIGH MISALIGNMENT	"HT" SERIES — HIGH TEMPERATURE—ROD END	89

INTERNALLY THREADED

STANDARD	"L" SERIES — BRONZE OUTER RACE—ROD END	90
STANDARD	"SS" SERIES — STAINLESS STEEL OUTER RACE—ROD END	91
STANDARD	ALL CRES "HT" SERIES — HIGH TEMPERATURE—ROD END	92
STANDARD	"LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	93
STANDARD	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	94
STANDARD	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	95
STANDARD	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	96
STANDARD	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	97
HEAVY DUTY	"L" SERIES — BRONZE OUTER RACE—ROD END	98
HEAVY DUTY	"SS" SERIES — STAINLESS STEEL OUTER RACE—ROD END	99
HEAVY DUTY	ALL CRES "HT" SERIES — HIGH TEMPERATURE—ROD END	100
HEAVY DUTY	SALT WATER IMMERSION "SS" SERIES — ALL STAINLESS STEEL—ROD END	101
HEAVY DUTY	"SWRF-100" SERIES — HIGH STRUCTURAL CAPACITY—ROD END	102
HIGH MISALIGNMENT	"L" SERIES — BRONZE OUTER RACE—ROD END	103
HIGH MISALIGNMENT	"SS" SERIES — STAINLESS STEEL OUTER RACE—ROD END	104
HIGH MISALIGNMENT	ALL CRES "HT" SERIES — HIGH TEMPERATURE—ROD END	105
HIGH MISALIGNMENT	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	106
HIGH MISALIGNMENT	SALT WATER IMMERSION "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	107
"2" PIECE HEAVY DUTY	"HD" SERIES — HEAVY DUTY—ROD END	108
"2" PIECE HEAVY DUTY	"HT" SERIES — HIGH TEMPERATURE—ROD END	109
"2" PIECE HEAVY DUTY	ALL CRES "HD" SERIES — HEAVY DUTY—ROD END	110
"2" PIECE HEAVY DUTY	ALL CRES "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	111
STANDARD	SELF-ALIGNING BALL STUD — ALL STAINLESS STEEL—ROD END	112
STANDARD	SELF-ALIGNING BALL STUD "LF" SERIES — ALL ST. STEEL LOW FRICTION "DYFLON"® RACE—ROD END	113
STANDARD	"LF-275" SERIES — ALL ST. STEEL LOW FRICTION "DYFLON"® RACE—ROD END	114
STANDARD, EXTERNALLY THREADED	"MS" "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	116
.....	(MS21243S AND MS21243C)	117
.....	— DATA PAGE	117
STANDARD, INTERNALLY THREADED	"MS" "LF" SERIES — LOW FRICTION "DYFLON"® RACE—ROD END	118
.....	(MS21242S AND MS21242C)	119
.....	— DATA PAGE	119

SOUTHWEST PRODUCTS CO.

MONROVIA, CALIFORNIA

"Monoball"® Self-Lubricating "Dyflon"®

SELF-ALIGNING SPHERICAL BEARINGS AND ROD ENDS

DESIGN CRITERIA

DYFLON® DENOTES A "MONOBALL"® SPHERICAL BEARING IN WHICH IS INCORPORATED A SELF-LUBRICATING LOW FRICTION PLASTIC ALLOY LINER MANUFACTURED EXCLUSIVELY UNDER PATENT NO. 3,085,312 BY SOUTHWEST PRODUCTS CO.

1. ULTIMATE STATIC RADIAL LOAD FOR SPHERICAL BEARINGS

THE LOAD AT WHICH PERMANENT DEFORMATION OF THE RACE WILL NOT EXCEED $\frac{3}{8}$ OF ONE PERCENT OF THE BORE DIAMETER OF THE BEARING.

SPHERICAL ROD END BEARINGS

THE LOAD AT WHICH THE ROD END BODY WILL FAIL IN TENSION (USUALLY LESS THAN THE ULTIMATE STATIC RADIAL LOAD OF THE BEARING).

2. LIMIT RADIAL AND THRUST LOAD

RATINGS ARE LISTED IN THE DYFLON® ENGINEERING DESIGN DATA MANUAL.

3. DYNAMIC LOADING

DYNAMIC LOADING UP TO 40,000 PSI MAXIMUM IS PERMISSIBLE UNDER CERTAIN DESIGN CONDITIONS. DYNAMIC RATINGS, INCLUDING LIFE CURVES AND OTHER DESIGN PARAMETERS, ARE SHOWN IN THE DYFLON® DESIGN DATA MANUAL.

4. COEFFICIENT OF FRICTION

OF "MONOBALL"® DYFLON® SELF-ALIGNING BEARINGS UNDER HIGH UNIT LOADING WILL VARY BETWEEN .02 AND .05 DEPENDING ON DESIGN CONDITIONS.

5. PRELOAD (ROTATIONAL TORQUE)

STANDARD CATALOG "MONOBALL"® DYFLON® BEARINGS AND ROD END BEARINGS HAVE A VERY SLIGHT PRELOAD, WITH NO MEASURABLE RADIAL LOOSENESS. ADDITIONAL PRELOAD MAY BE OBTAINED FOR ALL STANDARD CATALOG SERIES BEARINGS THRU THE USE OF THE FOLLOWING CODING:

ADD "-T1" TO THE PART NO. IF MEDIUM PRELOAD IS REQUIRED.

ADD "-T2" TO THE PART NO. IF HIGH PRELOAD IS REQUIRED (THE HIGHEST OBTAINABLE UNDER NORMAL MANUFACTURING METHODS); HIGHER PRELOAD MAY BE OBTAINED ON SPECIAL "MONOBALL"® "DYFLON"® BEARINGS.

EXAMPLES:

<u>PART NO.</u>	<u>ROTATIONAL TORQUE PRELOAD</u>
BLFR-12	STANDARD
BLFR-12-T1	MEDIUM
BLFR-12-T2	HIGH

SOUTHWEST PRODUCTS CO.
MONROVIA, CALIFORNIA

INSTRUCTIONS

A. NOTE: LUBRICATION GROOVE CALL OUT

UNLESS SPECIFIED AS SHOWN BELOW ALL BEARINGS WILL BE FURNISHED PLAIN, i.e., WITHOUT LUBRICATION GROOVE:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE ON O.D. OF OUTER RACE WITH THREE EQUALLY SPACED HOLES THRU RACE REQUIRED.
2. ADD "G-2" TO PART NUMBER IF LUBRICATION GROOVE ON I.D. OF OUTER RACE, LUBRICATION GROOVE ON I.D. (BORE) OF BALL, WITH THREE EQUALLY SPACED HOLES THRU SPHERICAL O.D. OF BALL REQUIRED.
3. ADD "G-3" TO PART NUMBER IF LUBRICATION GROOVES ON O.D. AND I.D. OF OUTER RACE AND I.D. (BORE) OF BALL, WITH THREE EQUALLY SPACED HOLES THRU BALL AND RACE REQUIRED.
EXAMPLE - BLR-8000-G-3.
4. ADD "G-4" TO PART NUMBER IF LUBRICATION GROOVES ON O.D. AND I.D. OF OUTER RACE AND THREE EQUALLY SPACED HOLES THRU RACE REQUIRED.
EXAMPLE - BLR-8000-G-4.

B. NOTE: SOLID OR DRY FILM LUBRICANT CALL OUT. DIMENSIONS ARE EFFECTIVE BEFORE APPLICATION OF "SOLID OR DRY FILM LUBRICANT".

1. ADD "M" TO PART NUMBER IF "SOLID OR DRY FILM LUBRICANT" REQD. ON BORE OF BALL.
EXAMPLE - BLR-8000-M.
EXAMPLE - BRE-8010-M.
2. ADD "M-1" TO PART NUMBER IF "SOLID OR DRY FILM LUBRICANT" REQUIRED ON I.D. OF OUTER RACE.
EXAMPLE - BLR-8000-M-1
EXAMPLE - BRE-8010-M-1
3. ADD "M-2" TO PART NUMBER IF "SOLID OR DRY FILM LUBRICANT" REQUIRED ON I.D. OF OUTER RACE AND BORE OF BALL.
EXAMPLE - BLR-8000-M-2
EXAMPLE - BRE-8010-M-2
4. ADD "M-3" TO PART NUMBER IF "SOLID OR DRY FILM LUBRICANT" REQUIRED ON O.D. OF BALL.
EXAMPLE - BLR-8000-M-3
EXAMPLE - BRE-8010-M-3

C. NOTES A & B CAN BE COMBINED AS FOLLOWS:

EXAMPLE - BLR-8000-G-3-M-2.

THE PLAIN "MONOBALL"® SELF-ALIGNING BEARINGS SHOULD BE LUBRICATED WITH UNION OIL GREASE STRONA LT-1, OR EQUIVALENT, EVERY 130 HOURS OF OPERATION; FOR MILITARY USE GREASE SPEC. MIL-G-23827.

BEARINGS THAT ARE USED UNDER HIGH BEARING PRESSURE APPLICATIONS SHOULD BE LUBRICATED WITH UNION OIL GREASE STRONA HT-1, OR EQUIVALENT.

SELF-ALIGNING "MONOBALL"® BEARINGS SHOULD BE SELECTED FROM THE CATALOGUE FOR THE PROPER OPERATING LOAD AND HIGHER LOAD CAPACITY BEARINGS CAN BE MANUFACTURED UPON WRITTEN REQUEST.

"MONOBALL"® AND "DYFLON"® SPHERICAL BEARINGS ARE MANUFACTURED UNDER ONE OR MORE OF THESE PATENT NUMBERS: U. S. PAT. NO. 2,626,841; 2,724,172; 2,728,975; 3,085,312; 3,193,910. BRITISH PAT. NO' 734,439; 945,930. ITALIAN PAT. NOS. 526,903, 693,196. FRENCH PAT. NOS. 1,077,585; 1,347,169. CANADIAN PAT. NO. 604,699; 537,958. SWEDISH PAT. NO. 176,525. BELGIUM PAT. NO. 640,638. JAPAN PAT. NO. 639151, 1228,987, AND OTHER PATENTS APPLIED FOR

"MONOBALL"® SPHERICAL PLAIN BEARINGS AND SPHERICAL EXTERNALLY THREADED AND INTERNALLY THREADED ROD ENDS HAVE A GREATER LOAD CARRYING CAPACITY THAN THE CONVENTIONAL ANTI-FRICTION TYPES, SINCE THEY HAVE A GREATER BEARING AREA.

ALL THE PARTS OF THE "MONOBALL"® SELF-ALIGNING BEARINGS ARE MANUFACTURED BY US, AFTER WHICH THEY ARE THOROUGHLY CLEANED, GREASED (EXCEPT "DYFLON"®), AND PACKED IN MOISTURE AND DUST-PROOF WRAPPERS.

WE HIGHLY RECOMMEND THE USE OF OUR STANDARD CATALOG "MONOBALL"® BEARINGS AND ROD ENDS WHEREVER POSSIBLE. IF REQUESTED, WE ARE PREPARED TO MANUFACTURE SPECIAL "MONOBALL"® BEARINGS AND ROD ENDS TO YOUR REQUIREMENTS.

WRITE OR WIRE US YOUR BEARING PROBLEMS AND OUR FIELD ENGINEERING DEPARTMENT WILL SUBMIT THEIR RECOMMENDATIONS BASED ON EACH INDIVIDUAL APPLICATION OF OUR "MONOBALL"® BEARINGS. PLEASE FILL IN BEARING RECOMMENDATION CHART AND RETURN TO US. DATA HAS BEEN CAREFULLY CHECKED, HOWEVER, WE ARE NOT RESPONSIBLE FOR ANY ERRORS.

SOUTHWEST PRODUCTS CO.

MONROVIA, CALIFORNIA

COPYRIGHT 1951 BY SOUTHWEST PRODUCTS CO.

ALL RIGHTS RESERVED

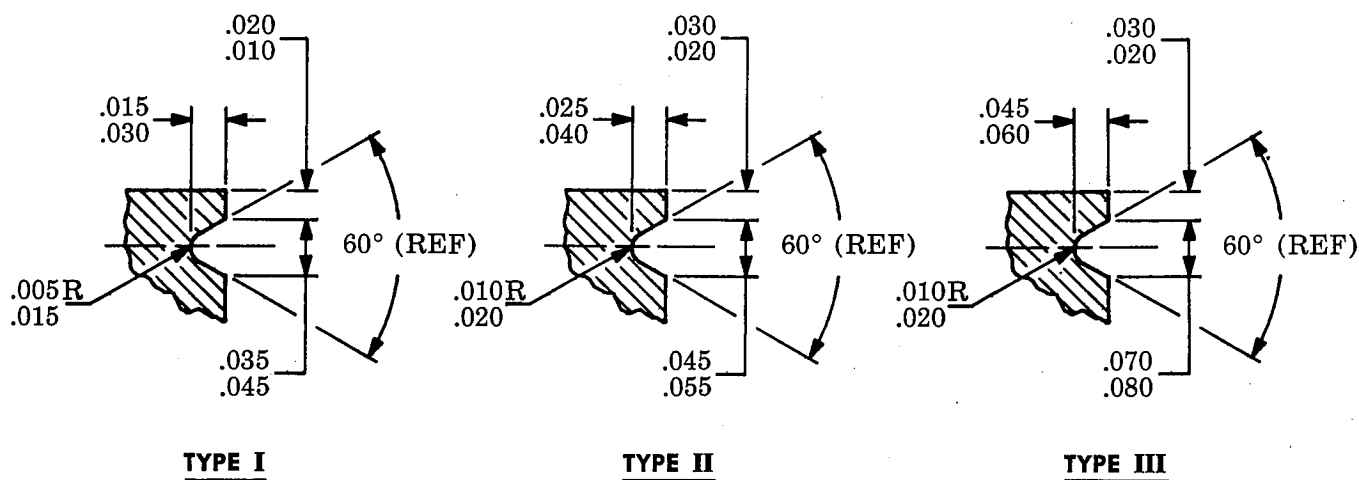
"Monoball"® Grooved Series

SELF-ALIGNING SPHERICAL BEARINGS

ANY OF THE ALL-METAL "MONOBALL"® BEARING SERIES LISTED MAY BE OBTAINED WITH AN ANNULAR STAKING GROOVE, BY ADDING "S" TO THE BASIC PART NUMBER. ADDITIONAL CODING SHOWN ON PAGE (C) MAY BE ADDED AFTER THE "S."

EXAMPLE: BLR-8420S

BLR-8420S-C-G-3-M-2



GROOVE DETAILS

WIDE RACE "R" SERIES

BLR ("L" SERIES)

BSR ("S" SERIES)

BSSR ("SS" SERIES)

BAR ("HT" SERIES)

BHDR ("HD" SERIES)

BLFR ("LF" SERIES)

SIZES

3XXX THRU 5XXX
6XXX THRU 10XXX
12XXX THRU 48XXX

GROOVE DETAIL

TYPE I
TYPE II
TYPE III

EXCEPTIONS: BLR-3015, BSR-3015, BSSR-3015 & BAR-3745 ARE NOT AVAILABLE WITH STAKING GROOVES.

SOUTHWEST PRODUCTS CO.

P.O. BOX 1028, MONROVIA, CALIFORNIA 91016

(D)

"Monoball"® Grooved Series

(CONTINUED)

NARROW RACE "N" SERIES

BLN ("LN" SERIES)
BAN ("HTN" SERIES)

BSN ("SN" SERIES)
BHDN ("HDN" SERIES)

BSSN ("SSN" SERIES)
BLFN ("LFN" SERIES)

SIZES

4XXX ONLY
5XXX THRU 7XXX
8XXX THRU 16XXX

GROOVE DETAIL

TYPE I
TYPE II
TYPE III

EXCEPTIONS: BLN-3003, BSN-3003, BSSN-3003, BAN-3740, BHDN-3003, BLFN-3 & BLFN- 3-100' ARE NOT AVAILABLE WITH STAKING GROOVES.

HIGH MISALIGNMENT SERIES

BLR (HIGH MISALIGN. "L" SERIES), BSSR (HIGH MISALIGN. "SS" SERIES)

BAR (HIGH MISALIGN. "HT" SERIES)

BLFR (HIGH MISALIGN. "LF" SERIES) (SEE NOTE)*

SIZES

3XXX THRU 5XXX
6XXX THRU 10XXX
12XXX THRU 48XXX

GROOVE DETAIL

TYPE I
TYPE II
TYPE III

EXCEPTIONS: BLR-3675, BLR-5180, BSSR-3675, BSSR-5180, BAR-3675, BAR-5180, AND BLFR-3-245 ARE NOT AVAILABLE WITH STAKING GROOVES.

***NOTE:** HIGH MISALIGNMENT "DYFLON"® BEARING SERIES MAY BE OBTAINED BY SUBSTITUTING "-245" FOR "-045" CATALOG ITEMS. EXAMPLE: BLFR-5-245.

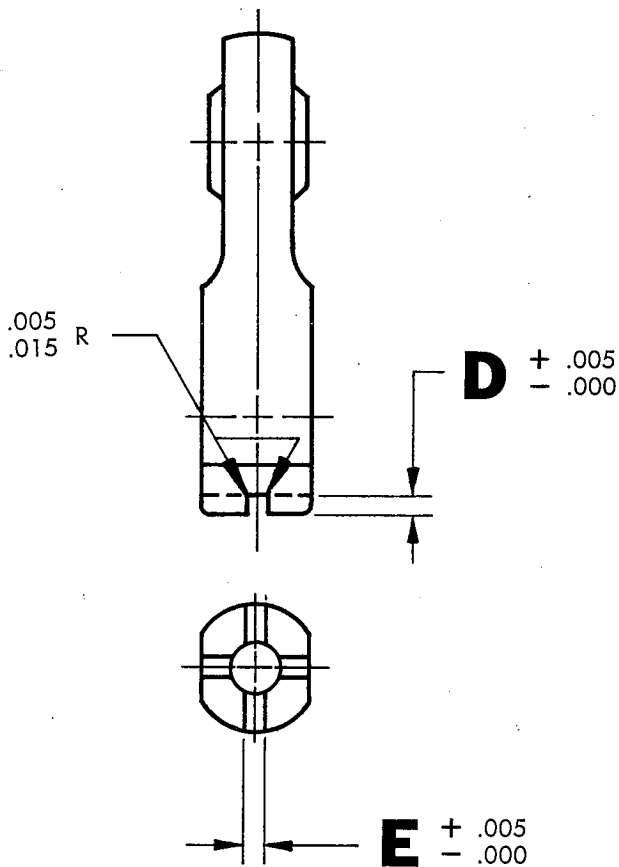
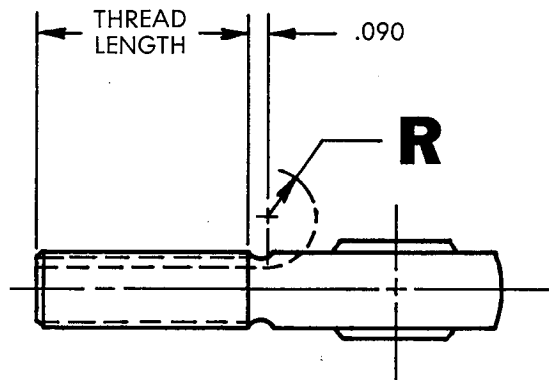
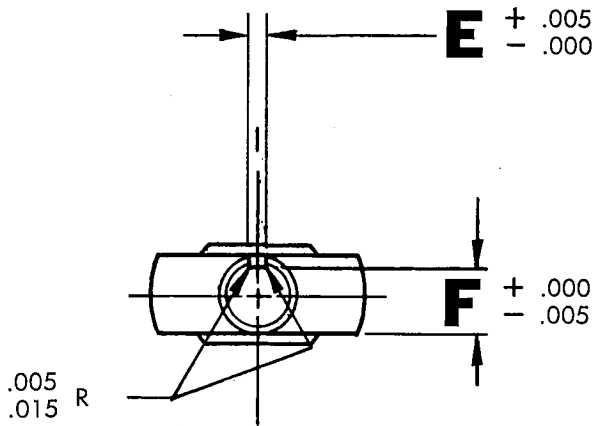
WHERE STAKING GROOVES ARE REQUIRED FOR LARGER SIZES IN ANY OF THE SERIES LISTED, PART NUMBERS AND GROOVE DIMENSIONS WILL BE FURNISHED ON REQUEST.

SOUTHWEST PRODUCTS CO.

P.O. BOX 1028, MONROVIA, CALIFORNIA 91016

(E)

NAS STD KEYSLOT ROD END



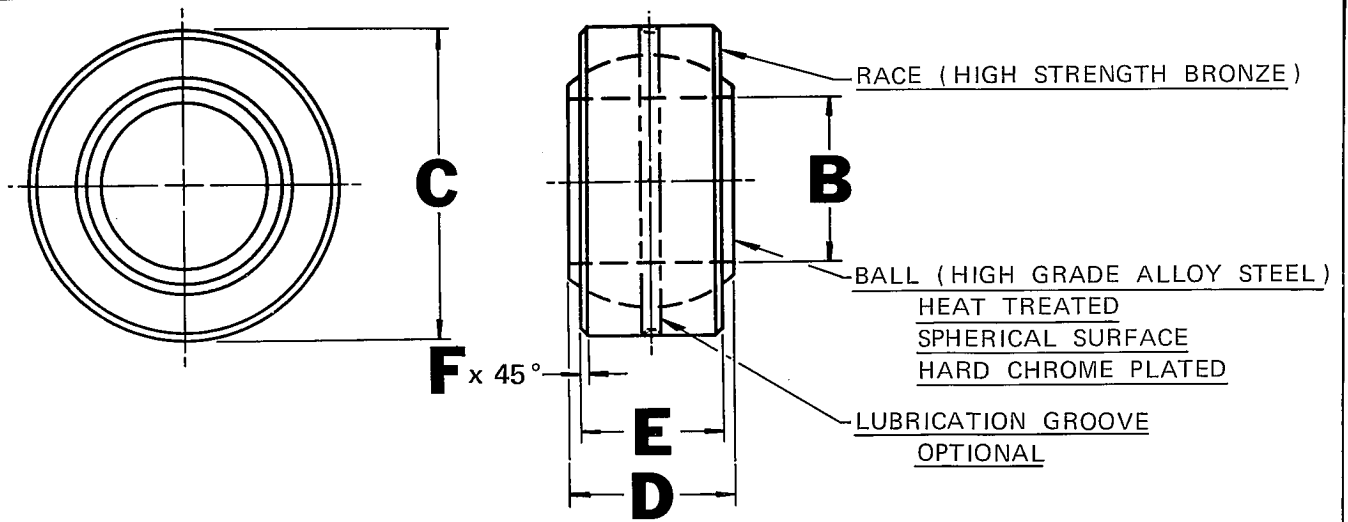
THREAD OD (REF)	D	E	F	R
.250	.056	.062	.201	.255
.312	.056	.062	.260	.255
.375	.056	.093	.311	.255
.437	.069	.093	.370	.255
.500	.069	.093	.436	.255
.562	.077	.125	.478	.255
.625	.077	.125	.541	.255
.750	.077	.125	.663	.255
.875	.086	.156	.777	.318
1.000	.094	.156	.900	.318
1.125	.094	.187	1.010	.382
1.250	.116	.187	1.136	.382
1.375	.116	.250	1.236	.445
1.500	.116	.250	1.361	.445
1.625	.129	.250	1.477	.445
1.750	.129	.312	1.589	.508
1.875	.129	.312	1.714	.508
2.000	.129	.312	1.839	.508
2.125	.129	.312	1.955	.508
2.250	.129	.312	2.080	.508

NOTES:

1. ADD "S" TO PART NUMBER IF SLOTTED SHANK TO NAS-559 KEYSLOT REQUIRED.
EXAMPLE—BRES-3921 BRES-3090.
DREFS -4
2 BREFS -4

NAS STD KEYSLOT ROD END





BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLR-3000	.1900	.6250	.437	.322	.020	.6250	3,200	.531
BLR-3015	.1900	.5000	.359	.281	.020	.5000	3,000	.437
BLR-4000	.2500	.6250	.437	.322	.020	.6250	5,500	.531
BLR-5000	.3125	.6875	.437	.312	.020	.6875	8,600	.593
BLR-6000A	.3750	.8125	.500	.401	.020	.8125	13,200	.687
BLR-7000	.4375	.9375	.562	.437	.020	.9375	16,900	.781
BLR-8000	.5000	1.0000	.625	.500	.020	1.0000	22,000	.875
BLR-9000	.5625	1.1250	.687	.531	.020	1.1250	29,100	1.000
BLR-10000	.6250	1.1875	.750	.562	.020	1.1875	34,500	1.062
BLR-12000	.7500	1.3750	.875	.625	.020	1.3750	49,500	1.250
BLR-14000	.8750	1.6250	.875	.750	.020	1.6250	67,600	1.375
BLR-16000	1.0000	2.1250	1.375	1.000	.020	2.1250	88,400	1.875
BLR-20000	1.2500	2.3750	1.500	1.125	.020	2.3750	136,500	2.093
BLR-22000	1.3750	2.5625	1.687	1.218	.020	2.5625	162,000	2.281
BLR-24000	1.5000	2.6875	1.687	1.218	.030	2.6875	170,000	2.390
BLR-26000	1.6250	2.8750	1.750	1.281	.030	2.8750	190,000	2.531
BLR-28000	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	204,000	2.672
BLR-30000	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	220,000	2.812
BLR-32000	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	237,000	2.937
BLR-36000	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	260,000	3.156
BLR-40000	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	289,000	3.437
BLR-44000	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	324,000	3.687
BLR-48000	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	359,000	3.937

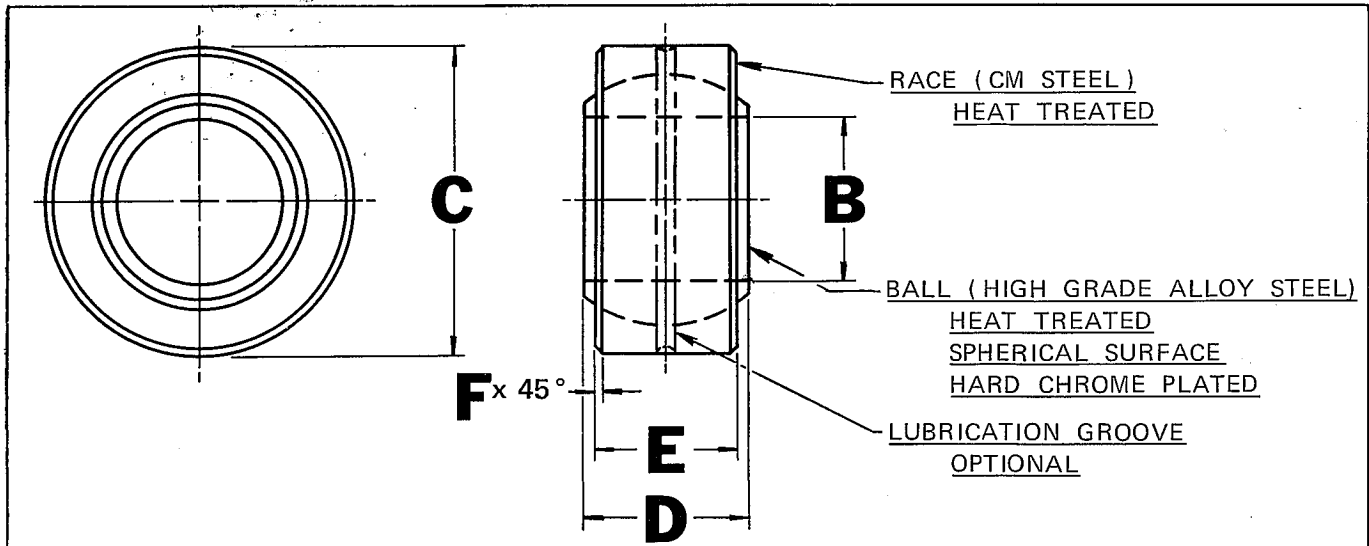
*+.0000, -.0008

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED. EXAMPLE—BLR-8000-G.
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"L" SERIES



BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BSR-3000	.1900	.6250	.437	.322	.020	.6250	7,360	.531
BSR-3015	.1900	.5000	.359	.281	.020	.5000	5,800	.437
BSR-4000	.2500	.6250	.437	.322	.020	.6250	7,360	.531
BSR-5000	.3125	.6875	.437	.312	.020	.6875	11,500	.593
BSR-6000	.3750	.8125	.500	.401	.020	.8125	17,600	.687
BSR-7000	.4375	.9375	.562	.437	.020	.9375	22,500	.781
BSR-8000	.5000	1.0000	.625	.500	.020	1.0000	29,400	.875
BSR-9000	.5625	1.1250	.687	.531	.020	1.1250	38,800	1.000
BSR-10000	.6250	1.1875	.750	.562	.020	1.1875	46,000	1.062
BSR-12000	.7500	1.3750	.875	.625	.020	1.3750	66,300	1.250
BSR-14000	.8750	1.6250	.875	.750	.020	1.6250	90,100	1.375
BSR-16000	1.0000	2.1250	1.375	1.000	.020	2.1250	117,800	1.875
BSR-20000	1.2500	2.3750	1.500	1.125	.020	2.3750	182,100	2.093
BSR-22000	1.3750	2.5625	1.687	1.218	.020	2.5625	232,200	2.281
BSR-24000	1.5000	2.6875	1.687	1.218	.030	2.6875	243,000	2.390
BSR-26000	1.6250	2.8750	1.750	1.281	.030	2.8750	272,000	2.531
BSR-28000	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	292,000	2.672
BSR-30000	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	315,000	2.812
BSR-32000	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	338,000	2.937
BSR-36000	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	371,000	3.156
BSR-40000	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	413,000	3.437
BSR-44000	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	462,000	3.687
BSR-48000	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	513,000	3.937

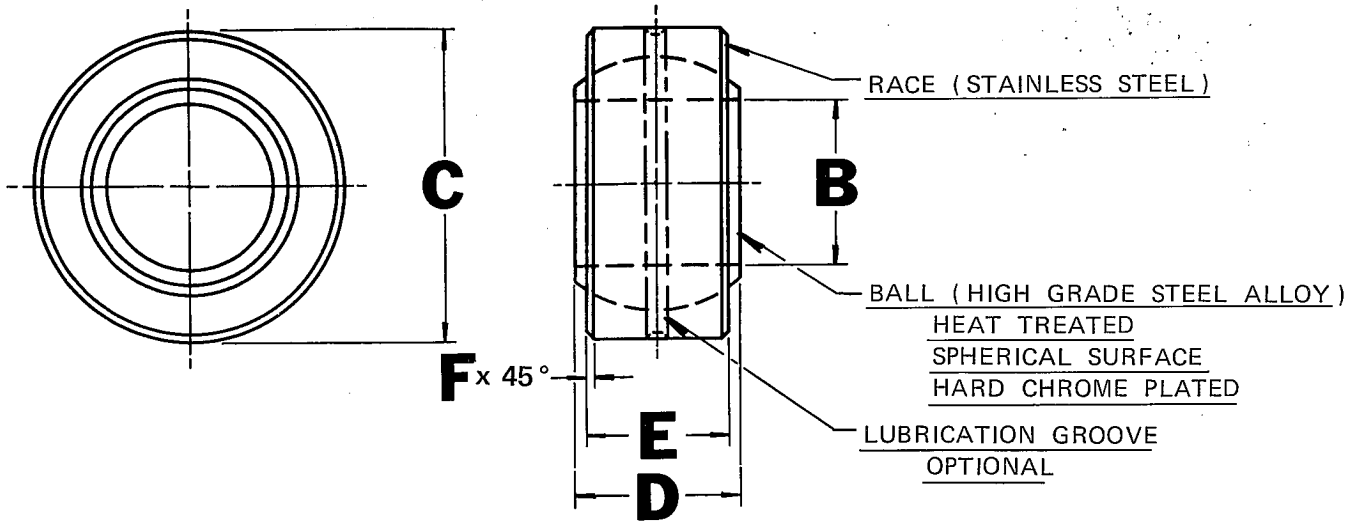
*+.0000, -.0008

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED. EXAMPLE-BSR-8000-G.
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"S" SERIES



BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BSSR-3000	.1900	.6250	.437	.322	.020	.6250	7,360	.531
BSSR-3015	.1900	.5000	.359	.281	.020	.5000	5,800	.437
BSSR-4000	.2500	.6250	.437	.322	.020	.6250	7,360	.531
BSSR-5000	.3125	.6875	.437	.312	.020	.6875	11,500	.593
BSSR-6000	.3750	.8125	.500	.401	.020	.8125	17,600	.687
BSSR-7000	.4375	.9375	.562	.437	.020	.9375	22,500	.781
BSSR-8000	.5000	1.0000	.625	.500	.020	1.0000	29,400	.875
BSSR-9000	.5625	1.1250	.687	.531	.020	1.1250	38,800	1.000
BSSR-10000	.6250	1.1875	.750	.562	.020	1.1875	46,000	1.062
BSSR-12000	.7500	1.3750	.875	.625	.020	1.3750	66,300	1.250
BSSR-14000	.8750	1.6250	.875	.750	.020	1.6250	90,100	1.375
BSSR-16000	1.0000	2.1250	1.375	1.000	.020	2.1250	117,800	1.875
BSSR-20000	1.2500	2.3750	1.500	1.125	.020	2.3750	182,100	2.093
BSSR-22000	1.3750	2.5625	1.687	1.218	.020	2.5625	232,200	2.281
BSSR-24000	1.5000	2.6875	1.687	1.218	.030	2.6875	243,000	2.390
BSSR-26000	1.6250	2.8750	1.750	1.281	.030	2.8750	272,000	2.531
BSSR-28000	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	292,000	2.672
BSSR-30000	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	315,000	2.812
BSSR-32000	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	338,000	2.937
BSSR-36000	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	371,000	3.156
BSSR-40000	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	413,000	3.437
BSSR-44000	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	462,000	3.687
BSSR-48000	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	513,000	3.937

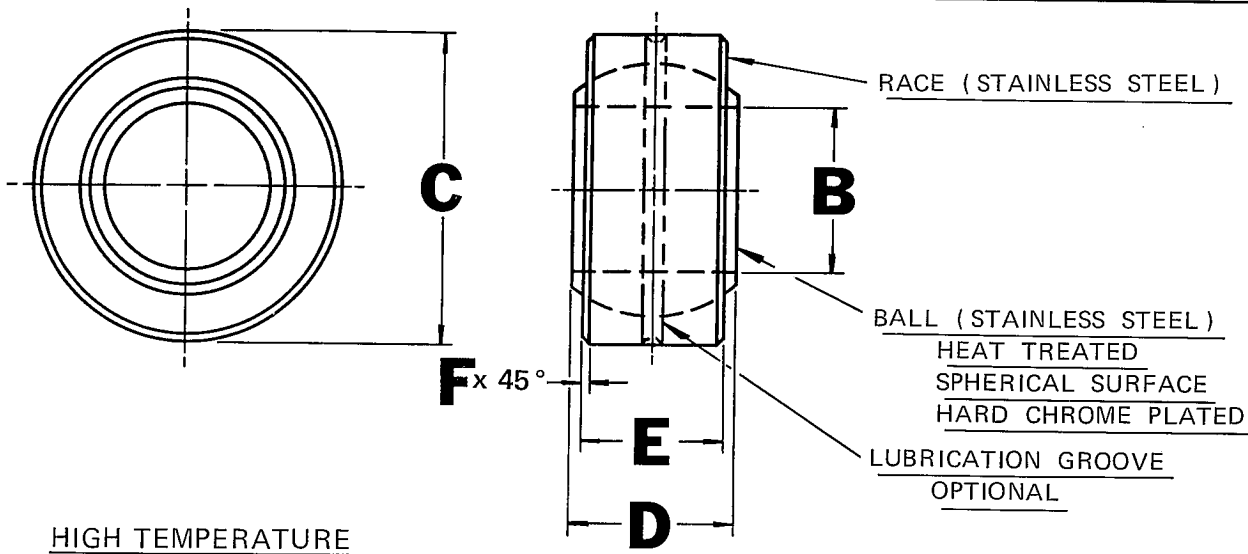
*+.0000, -.0008

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED. EXAMPLE-BSSR-8000-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"SS" SERIES



BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BAR-3735	.1900	.6250	.437	.322	.020	.6250	3,200	.531
BAR-3745	.1900	.5000	.359	.281	.020	.5000	3,000	.437
BAR-4965	.2500	.6250	.437	.322	.020	.6250	5,500	.531
BAR-5465	.3125	.6875	.437	.312	.020	.6875	8,600	.593
BAR-6545	.3750	.8125	.500	.401	.020	.8125	13,200	.687
BAR-7320	.4375	.9375	.562	.437	.020	.9375	16,900	.781
BAR-8480	.5000	1.0000	.625	.500	.020	1.0000	22,000	.875
BAR-9090	.5625	1.1250	.687	.531	.020	1.1250	29,100	1.000
BAR-10415	.6250	1.1875	.750	.562	.020	1.1875	34,500	1.062
BAR-12350	.7500	1.3750	.875	.625	.020	1.3750	49,500	1.250
BAR-14205	.8750	1.6250	.875	.750	.020	1.6250	67,600	1.375
BAR-16270	1.0000	2.1250	1.375	1.000	.020	2.1250	88,400	1.875
BAR-20150	1.2500	2.3750	1.500	1.125	.020	2.3750	136,500	2.093
BAR-22035	1.3750	2.5625	1.687	1.218	.020	2.5625	162,000	2.281
BAR-24080	1.5000	2.6875	1.687	1.218	.030	2.6875	170,000	2.390
BAR-26035	1.6250	2.8750	1.750	1.281	.030	2.8750	190,000	2.531
BAR-28075	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	204,000	2.672
BAR-30040	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	220,000	2.812
BAR-32060	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	237,000	2.937
BAR-36060	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	260,000	3.156
BAR-40075	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	289,000	3.437
BAR-44055	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	324,000	3.687
BAR-48065	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	359,000	3.937

*+.0000, -.0008

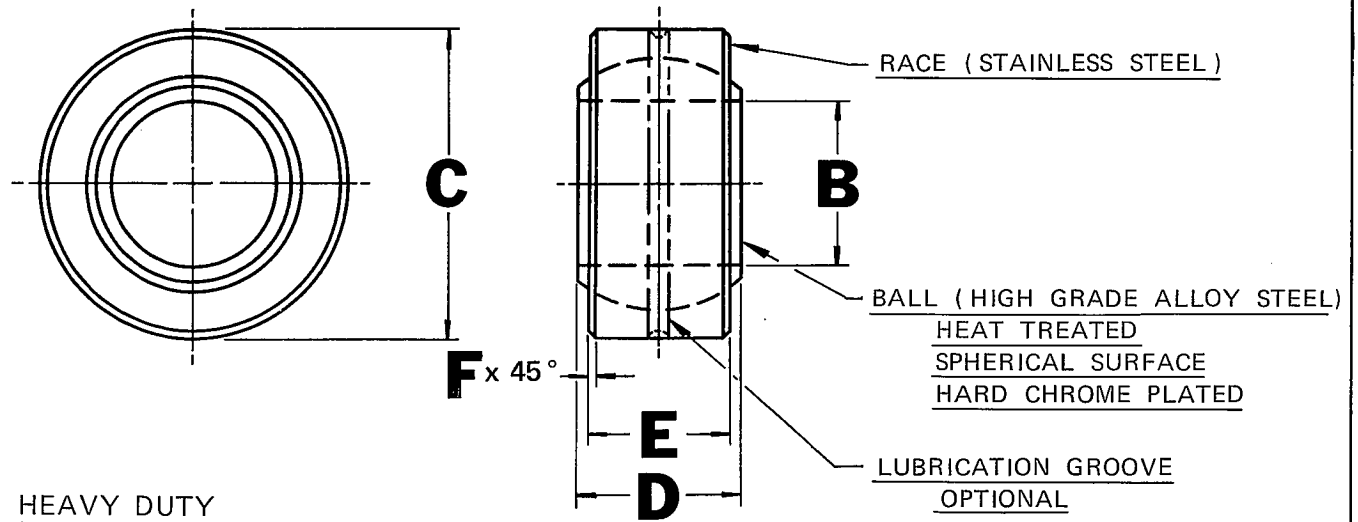
NOTES:

1. THESE BEARINGS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
3. SHORT TIME LOADING 15 MINUTES MAXIMUM AT 1000° F.
4. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BAR-8480-G.
5. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"HT" SERIES

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BHDR-3000	.1900	.6250	.437	.322	.020	.6250	17,750	.531
BHDR-4000	.2500	.6250	.437	.322	.020	.6250	17,750	.531
BHDR-5000	.3125	.6875	.437	.312	.020	.6875	22,900	.593
BHDR-6000	.3750	.8125	.500	.401	.020	.8125	34,100	.687
BHDR-7000	.4375	.9375	.562	.437	.020	.9375	42,250	.781
BHDR-8000	.5000	1.0000	.625	.500	.020	1.0000	54,150	.875
BHDR-9000	.5625	1.1250	.687	.531	.020	1.1250	65,800	1.000
BHDR-10000	.6250	1.1875	.750	.562	.020	1.1875	74,000	1.062
BHDR-12000	.7500	1.3750	.875	.625	.020	1.3750	96,800	1.250
BHDR-14000	.8750	1.6250	.875	.750	.020	1.6250	127,800	1.375
BHDR-16000	1.0000	2.1250	1.375	1.000	.020	2.1250	232,500	1.875
BHDR-20000	1.2500	2.3750	1.500	1.125	.020	2.3750	291,850	2.093
BHDR-22000	1.3750	2.5625	1.687	1.218	.020	2.5625	344,450	2.281
BHDR-24000	1.5000	2.6875	1.687	1.218	.030	2.6875	360,850	2.390
BHDR-26000	1.6250	2.8750	1.750	1.281	.030	2.8750	402,000	2.531
BHDR-28000	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	434,700	2.672
BHDR-30000	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	468,200	2.812
BHDR-32000	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	500,700	2.937
BHDR-36000	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	550,550	3.156
BHDR-40000	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	612,400	3.437
BHDR-44000	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	685,800	3.687
BHDR-48000	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	762,600	3.937

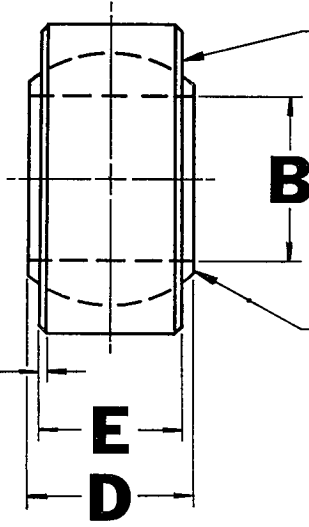
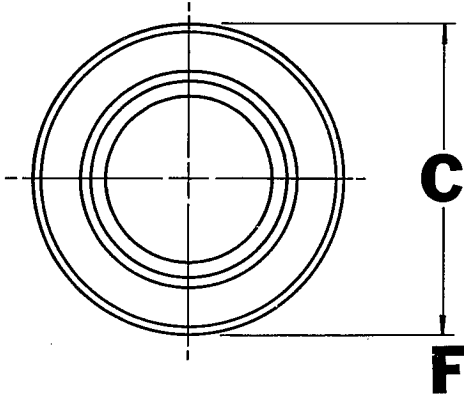
*+.0000, -.0008

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED. EXAMPLE-BHDR-8000-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

"HD" SERIES





RACE (SWPCO #9)
SUPER ALLOY STEEL
PLATED

BALL (SWPCO #9)
SUPER ALLOY STEEL
HIGH DENSITY
CHROME PLATED ON
SPHERICAL SURFACE
FLATS & BORE

HIGH
STRUCTURAL
CAPACITY

BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS + .0000 - .0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE + .0000 - .0005	OUTSIDE DIAMETER + .0000 - .0005	BALL WIDTH + .000 - .005	RACE WIDTH + .010 - .000	CHAMF. MIN.			
SWBR-3	.1900	.6250	.437	.322	.020	.6250	39,500	.531
SWBR-4	.2500	.6250	.437	.322	.020	.6250	39,500	.531
SWBR-5	.3125	.6875	.437	.312	.020	.6875	42,000	.593
SWBR-6	.3750	.8125	.500	.401	.020	.8125	66,000	.687
SWBR-7	.4375	.9375	.562	.437	.020	.9375	82,000	.781
SWBR-8	.5000	1.0000	.625	.500	.020	1.0000	107,000	.875
SWBR-9	.5625	1.1250	.687	.531	.020	1.1250	131,000	1.000
SWBR-10	.6250	1.1875	.750	.562	.020	1.1875	148,000	1.062
SWBR-12	.7500	1.3750	.875	.625	.020	1.3750	195,000	1.250
SWBR-14	.8750	1.6250	.875	.750	.020	1.6250	260,000	1.375
SWBR-16	1.0000	2.1250	1.375	1.000	.020	2.1250	480,000	1.875
SWBR-20	1.2500	2.3750	1.500	1.125	.020	2.3750	610,000	2.093
SWBR-22	1.3750	2.5625	1.687	1.218	.020	2.5625	720,000	2.281
SWBR-24	1.5000	2.6875	1.687	1.218	.030	2.6875	760,000	2.390
SWBR-26	1.6250	2.8750	1.750	1.281	.030	2.8750	850,000	2.531
SWBR-28	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	920,000	2.672
SWBR-30	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	990,000	2.812
SWBR-32	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	1,060,000	2.937
SWBR-36	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	1,170,000	3.156
SWBR-40	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	1,300,000	3.437
SWBR-44	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	1,450,000	3.687
SWBR-48	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	1,600,000	3.937

*+ .0000, - .0008

NOTES:

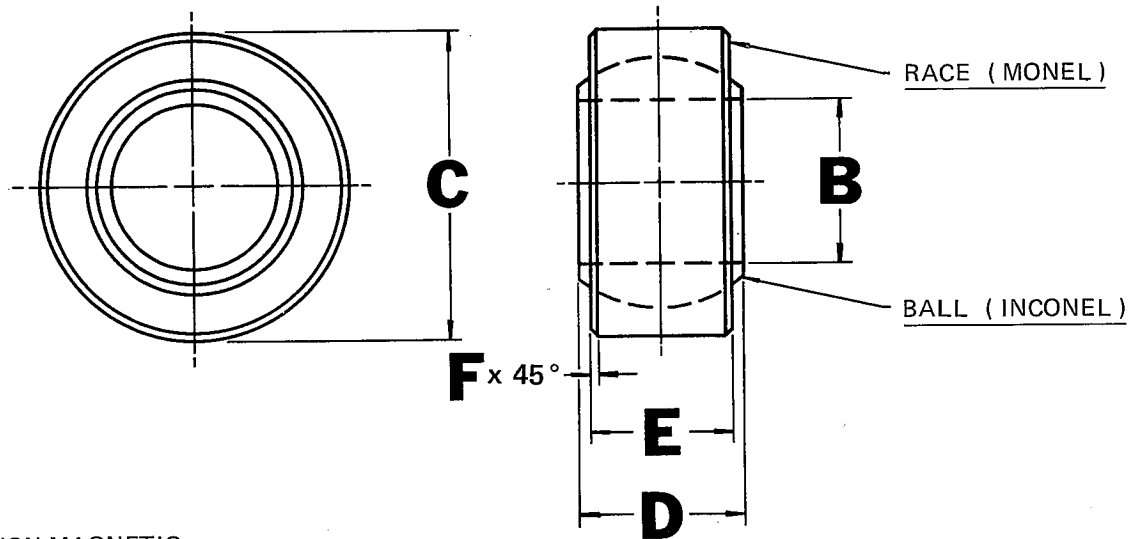
1. LOAD RATINGS SHOWN FOR USE IN TEMPERATURE RANGE -420° F TO + 400° F
2. HIGH IMPACT STRENGTH FOR CRYOGENIC USE.

SHORT TIME HIGH TEMPERATURE RATINGS					
TEMP.	400° F	600° F	800° F	900° F	1000° F
% ULT. LOAD	90%	86%	80%	72%	55%



"SWBR" SERIES

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



NON-MAGNETIC

BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
SWPBR-3-003	.1900	.6250	.437	.322	.020	.6250	7,360	.531
SWPBR-4-003	.2500	.6250	.437	.322	.020	.6250	7,360	.531
SWPBR-5-003	.3125	.6875	.437	.312	.020	.6875	11,500	.593
SWPBR-6-003	.3750	.8125	.500	.401	.020	.8125	17,600	.687
SWPBR-7-003	.4375	.9375	.562	.437	.020	.9375	22,500	.781
SWPBR-8-003	.5000	1.0000	.625	.500	.020	1.0000	29,400	.875
SWPBR-9-003	.5625	1.1250	.687	.531	.020	1.1250	38,800	1.000
SWPBR-10-003	.6250	1.1875	.750	.562	.020	1.1875	46,000	1.062
SWPBR-12-003	.7500	1.3750	.875	.625	.020	1.3750	66,300	1.250
SWPBR-14-003	.8750	1.6250	.875	.750	.020	1.6250	90,100	1.375
SWPBR-16-003	1.0000	2.1250	1.375	1.000	.020	2.1250	117,800	1.875
SWPBR-20-003	1.2500	2.3750	1.500	1.125	.020	2.3750	182,100	2.093
SWPBR-22-003	1.3750	2.5625	1.687	1.218	.020	2.5625	232,200	2.281
SWPBR-24-003	1.5000	2.6875	1.687	1.218	.030	2.6875	243,000	2.390
SWPBR-26-003	1.6250	2.8750	1.750	1.281	.030	2.8750	272,000	2.531
SWPBR-28-003	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	292,000	2.672
SWPBR-30-003	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	315,000	2.812
SWPBR-32-003	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	338,000	2.937
SWPBR-36-003	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	371,000	3.156
SWPBR-40-003	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	413,000	3.437
SWPBR-44-003	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	462,000	3.687
SWPBR-48-003	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	513,000	3.937

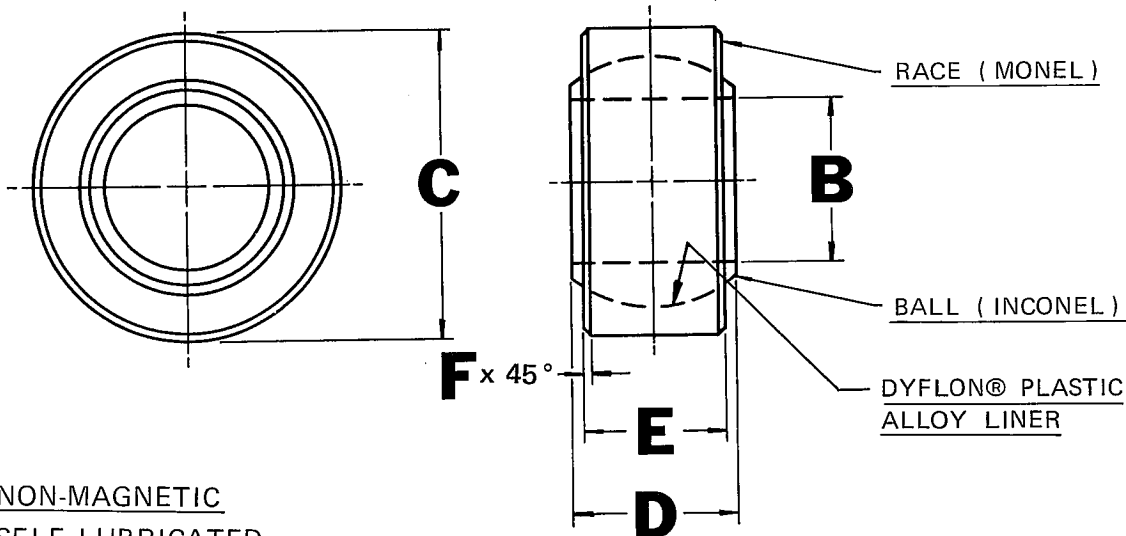
*+.0000, -.0008

NOTES:

1. ADD "G" TO PART NO. IF LUBRICATION GROOVE REQUIRED. EXAMPLE-SWPBR-8-003-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



NON-MAGNETIC SERIES



NON-MAGNETIC
SELF LUBRICATED

BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
SWPBLFR-3-003	.1900	.6250	.437	.322	.020	.6250	7,360	.531
SWPBLFR-4-003	.2500	.6250	.437	.322	.020	.6259	7,360	.531
SWPBLFR-5-003	.3125	.6875	.437	.312	.020	.6875	11,500	.593
SWPBLFR-6-003	.3750	.8125	.500	.401	.020	.8125	17,600	.687
SWPBLFR-7-003	.4375	.9375	.562	.437	.020	.9375	22,500	.781
SWPBLFR-8-003	.5000	1.0000	.625	.500	.020	1.0000	29,400	.875
SWPBLFR-9-003	.5625	1.1250	.687	.531	.020	1.1250	38,800	1.000
SWPBLFR-10-003	.6250	1.1875	.750	.562	.020	1.1875	46,000	1.062
SWPBLFR-12-003	.7500	1.3750	.875	.625	.020	1.3750	66,300	1.250
SWPBLFR-14-003	.8750	1.6250	.875	.750	.020	1.6250	90,100	1.375
SWPBLFR-16-003	1.0000	2.1250	1.375	1.000	.020	2.1250	117,800	1.875
SWPBLFR-20-003	1.2500	2.3750	1.500	1.125	.020	2.3750	182,100	2.093
SWPBLFR-22-003	1.3750	2.5625	1.687	1.218	.020	2.5625	232,200	2.281
SWPBLFR-24-003	1.5000	2.6875	1.687	1.218	.030	2.6875	243,000	2.390
SWPBLFR-26-003	1.6250	2.8750	1.750	1.281	.030	2.8750	272,000	2.531
SWPBLFR-28-003	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	292,000	2.672
SWPBLFR-30-003	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	315,000	2.812
SWPBLFR-32-003	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	338,000	2.937
SWPBLFR-36-003	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	371,000	3.156
SWPBLFR-40-003	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	413,000	3.437
SWPBLFR-44-003	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	462,000	3.687
SWPBLFR-48-003	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	513,000	3.937

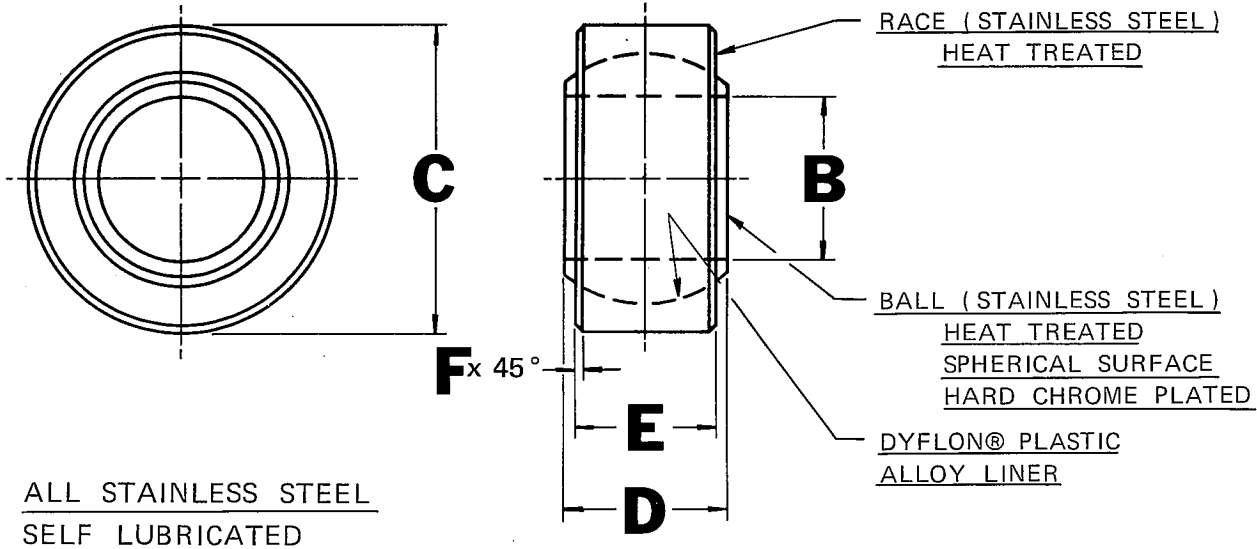
*+.0000, -.0008

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

NON-MAGNETIC
LOW FRICTION "LF" SERIES





BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR- 3	.1900	.6250	.437	.322	.020	.6250	7,360	.531
BLFR- 4	.2500	.6250	.437	.322	.020	.6250	7,360	.531
BLFR- 5	.3125	.6875	.437	.312	.020	.6875	11,500	.593
BLFR- 6	.3750	.8125	.500	.401	.020	.8125	17,600	.687
BLFR- 7	.4375	.9375	.562	.437	.020	.9375	22,500	.781
BLFR- 8	.5000	1.0000	.625	.500	.020	1.0000	29,400	.875
BLFR- 9	.5625	1.1250	.687	.531	.020	1.1250	38,800	1.000
BLFR-10	.6250	1.1875	.750	.562	.020	1.1875	46,000	1.062
BLFR-12	.7500	1.3750	.875	.625	.020	1.3750	66,300	1.250
BLFR-14	.8750	1.6250	.875	.750	.020	1.6250	90,100	1.375
BLFR-16	1.0000	2.1250	1.375	1.000	.020	2.1250	117,800	1.875
BLFR-20	1.2500	2.3750	1.500	1.125	.020	2.3760	182,100	2.093
BLFR-22	1.3750	2.5625	1.687	1.218	.020	2.5625	232,200	2.281
BLFR-24	1.5000	2.6875	1.687	1.218	.030	2.6875	243,000	2.390
BLFR-26	1.6250	2.8750	1.750	1.281	.030	2.8750	272,000	2.531
BLFR-28	*1.7500	*3.0000	1.182	1.312	.030	*3.0000	292,000	2.672
BLFR-30	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	315,000	2.812
BLFR-32	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	338,000	2.937
BLFR-36	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	371,000	3.156
BLFR-40	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	413,000	3.437
BLFR-44	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	462,000	3.687
BLFR-48	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	513,000	3.937

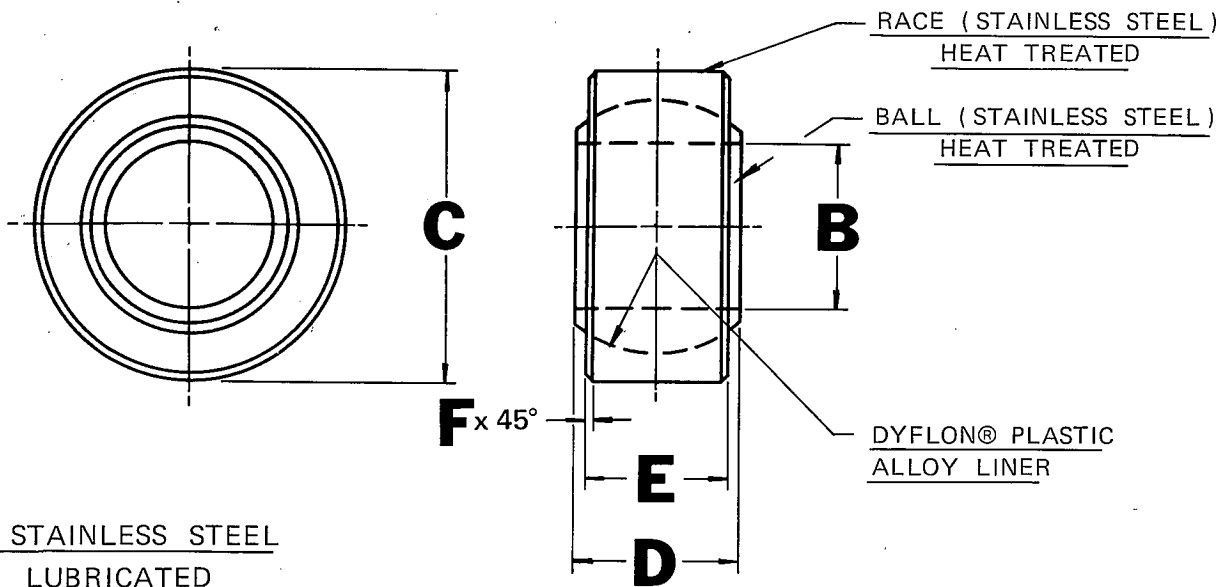
*+.0000, -.0008

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



LOW FRICTION "LF" SERIES



ALL STAINLESS STEEL
SELF LUBRICATED
SALT WATER IMMERSION

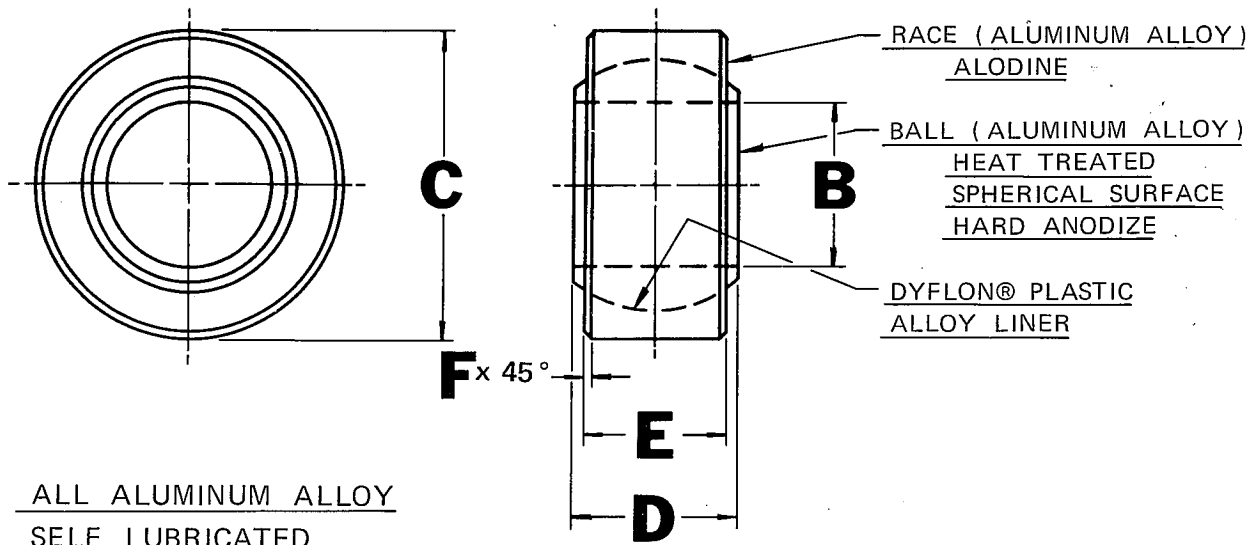
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR- 3-430	.1900	.6250	.437	.322	.020	.6250	7,360	.531
BLFR- 4-430	.2500	.6250	.437	.322	.020	.6250	7,360	.531
BLFR- 5-430	.3125	.6875	.437	.312	.020	.6875	11,500	.593
BLFR- 6-430	.3750	.8125	.500	.401	.020	.8125	17,600	.687
BLFR- 7-430	.4375	.9375	.562	.437	.020	.9375	22,500	.781
BLFR- 8-430	.5000	1.0000	.625	.500	.020	1.0000	29,400	.875
BLFR- 9-430	.5625	1.1250	.687	.531	.020	1.1250	38,800	1.000
BLFR-10-430	.6250	1.1875	.750	.562	.020	1.1875	46,000	1.062
BLFR-12-430	.7500	1.3750	.875	.625	.020	1.3750	66,300	1.250
BLFR-14-430	.8750	1.6250	.875	.750	.020	1.6250	90,100	1.375
BLFR-16-430	1.0000	2.1250	1.375	1.000	.020	2.1250	117,800	1.875
BLFR-20-430	1.2500	2.3750	1.500	1.125	.020	2.3750	182,100	2.093
BLFR-22-430	1.3750	2.5625	1.687	1.218	.020	2.5625	232,200	2.281
BLFR-24-430	1.5000	2.6875	1.687	1.218	.030	2.6875	243,000	2.390
BLFR-26-430	1.6250	2.8750	1.750	1.281	.030	2.8750	272,000	2.531
BLFR-28-430	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	292,000	2.672
BLFR-30-430	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	315,000	2.812
BLFR-32-430	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	338,000	2.937
BLFR-36-430	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	371,000	3.156
BLFR-40-430	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	413,000	3.437
BLFR-44-430	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	462,000	3.687
BLFR-48-430	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	513,000	3.937

NOTES: *+.0000, -.0008

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

LOW FRICTION "LF" SERIES





BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR- 8-062	.5000	1.0000	.625	.500	.020	1.0000	14,700	.875
BLFR- 9-062	.5625	1.1250	.687	.531	.020	1.1250	19,400	1.000
BLFR-10-062	.6250	1.1875	.750	.562	.020	1.1875	23,000	1.062
BLFR-12-062	.7500	1.3750	.875	.625	.020	1.3750	33,150	1.250
BLFR-14-062	.8750	1.6250	.875	.750	.020	1.6250	45,000	1.375
BLFR-16-062	1.000	2.1250	1.375	1.000	.020	2.1250	76,000	1.875
BLFR-20-062	1.2500	2.3750	1.500	1.125	.020	2.3750	91,000	2.093
BLFR-22-062	1.3750	2.5625	1.687	1.218	.020	2.5625	116,100	2.281
BLFR-24-062	1.5000	2.6875	1.687	1.218	.030	2.6875	121,500	2.390
BLFR-26-062	1.6250	2.8750	1.750	1.281	.030	2.8750	136,000	2.531
BLFR-28-062	*1.7500	*3.0000	1.812	1.312	.030	*3.0000	146,000	2.672
BLFR-30-062	*1.8750	*3.1250	1.875	1.343	.030	*3.1250	157,500	2.812
BLFR-32-062	*2.0000	*3.2500	1.937	1.375	.030	*3.2500	169,000	2.937
BLFR-36-062	*2.2500	*3.6250	2.000	1.406	.030	*3.6250	185,000	3.156
BLFR-40-062	*2.5000	*3.9375	2.062	1.437	.030	*3.9375	205,000	3.437
BLFR-44-062	*2.7500	*4.1250	2.187	1.500	.030	*4.1250	230,000	3.687
BLFR-48-062	*3.0000	*4.3750	2.312	1.562	.030	*4.3750	256,000	3.937

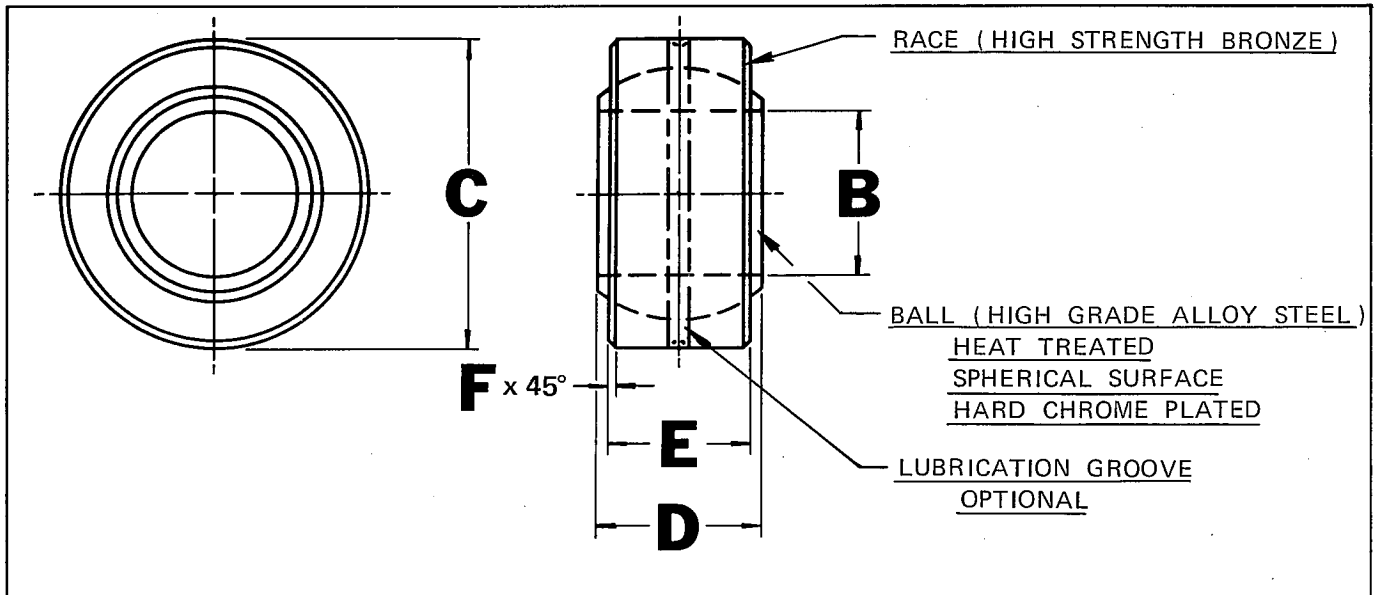
*+.0000, -.0008

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

ALUMINUM ALLOY
LOW FRICTION "LF" SERIES





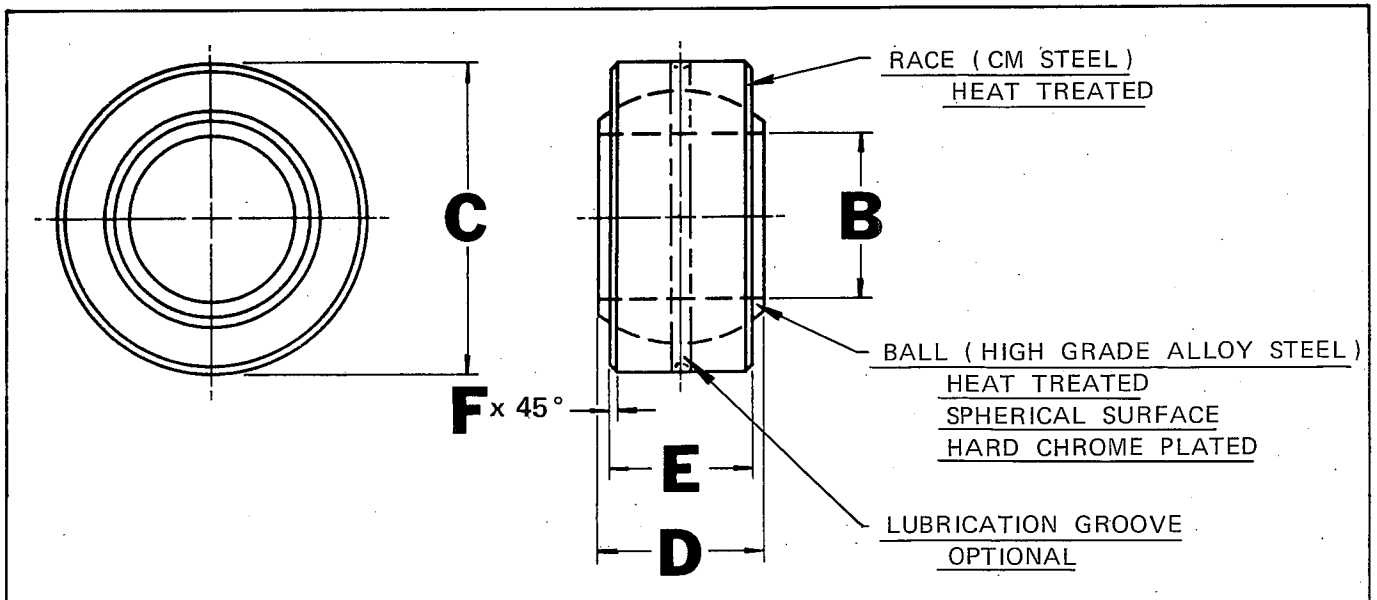
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLN-3003	.1900	.5625	.281	.213	.020	.5625	3,400	.437
BLN-4003	.2500	.6562	.343	.245	.020	.6562	6,000	.500
BLN-5003	.3125	.7500	.375	.276	.020	.7500	8,500	.593
BLN-6003	.3750	.8125	.406	.307	.020	.8125	11,500	.625
BLN-7003	.4375	.9062	.437	.338	.020	.9062	14,000	.687
BLN-8003	.5000	1.0000	.500	.385	.030	1.0000	16,000	.781
BLN-9003	.5625	1.0937	.562	.432	.030	1.0937	22,000	.875
BLN-10003	.6250	1.1875	.625	.495	.030	1.1875	30,000	1.000
BLN-12003	.7500	1.4375	.750	.588	.030	1.4375	46,000	1.250
BLN-14003	.8750	1.5625	.875	.698	.030	1.5625	66,000	1.375
BLN-16003	1.0000	1.7500	1.000	.792	.030	1.7500	77,000	1.562
BLN-18003	1.1250	2.1250	1.125	.906	.030	2.1250	98,000	1.750
BLN-20003	1.2500	2.3125	1.250	1.000	.030	2.3125	119,000	1.937
BLN-22003	1.3750	2.5625	1.375	1.100	.030	2.5625	146,000	2.156
BLN-24003	1.5000	2.8125	1.500	1.200	.030	2.8125	173,000	2.344

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BLN8003-G.
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"LN" SERIES



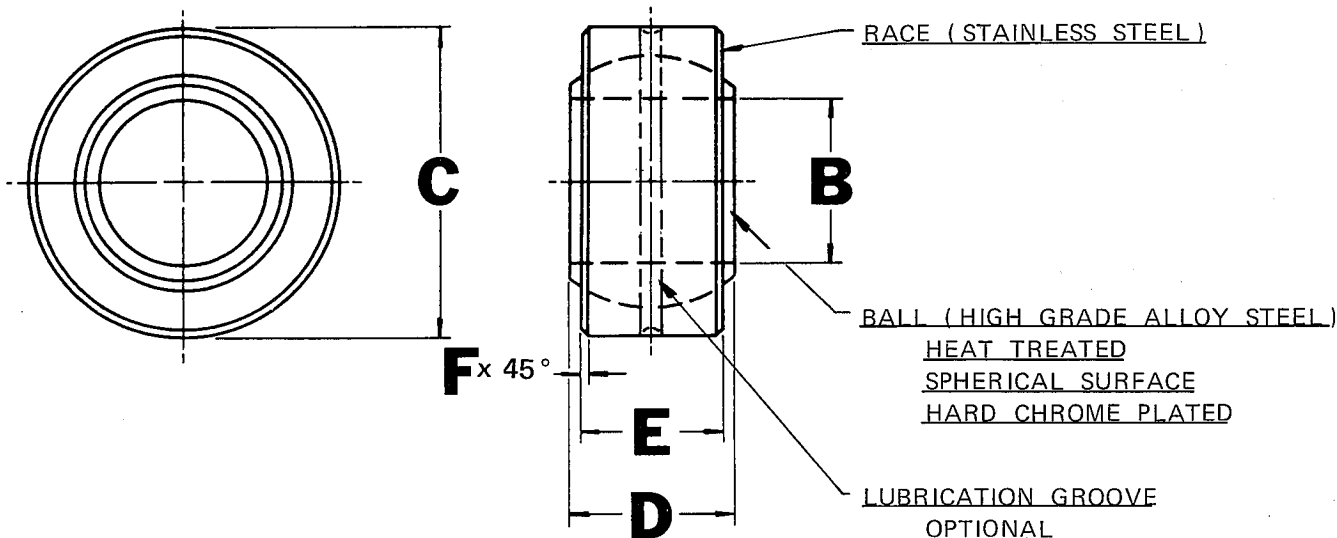
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BSN-3003	.1900	.5625	.281	.213	.020	.5625	4,500	.437
BSN-4003	.2500	.6562	.343	.245	.020	.6562	8,000	.500
BSN-5003	.3125	.7500	.375	.276	.020	.7500	11,300	.593
BSN-6003	.3750	.8125	.406	.307	.020	.8125	15,300	.625
BSN-7003	.4375	.9062	.437	.338	.020	.9062	18,700	.687
BSN-8003	.5000	1.0000	.500	.385	.030	1.0000	21,300	.781
BSN-9003	.5625	1.0937	.562	.432	.030	1.0937	29,400	.875
BSN-10003	.6250	1.1875	.625	.495	.030	1.1875	40,000	1.000
BSN-12003	.7500	1.4375	.750	.588	.030	1.4375	61,500	1.250
BSN-14003	.8750	1.5625	.875	.698	.030	1.5625	88,000	1.375
BSN-16003	1.0000	1.7500	1.000	.792	.030	1.7500	103,000	1.562
BSN-18003	1.1250	2.1250	1.125	.906	.030	2.1250	134,000	1.750
BSN-20003	1.2500	2.3125	1.250	1.000	.030	2.3125	164,000	1.937
BSN-22003	1.3750	2.5625	1.375	1.100	.030	2.5625	201,000	2.156
BSN-24003	1.5000	2.8125	1.500	1.200	.030	2.8125	239,000	2.344

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BSN-8003-G.
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"SN" SERIES



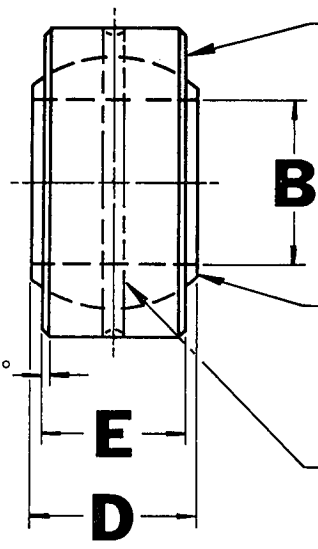
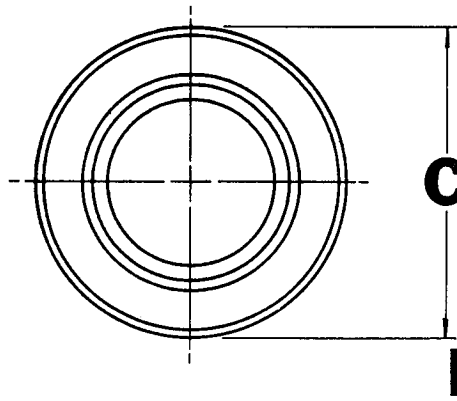
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BSSN-3003	.1900	.5625	.281	.213	.020	.5625	4,500	.437
BSSN-4003	.2500	.6562	.343	.245	.020	.6562	8,000	.500
BSSN-5003	.3125	.7500	.375	.276	.020	.7500	11,300	.593
BSSN-6003	.3750	.8125	.406	.307	.020	.8125	15,300	.625
BSSN-7003	.4375	.9062	.437	.338	.020	.9062	18,700	.687
BSSN-8003	.5000	1.0000	.500	.385	.030	1.0000	21,300	.781
BSSN-9003	.5625	1.0937	.562	.432	.030	1.0937	29,400	.875
BSSN-10003	.6250	1.1875	.625	.495	.030	1.1875	40,000	1.000
BSSN-12003	.7500	1.4375	.750	.588	.030	1.4375	61,500	1.250
BSSN-14003	.8750	1.5625	.875	.698	.030	1.5625	88,000	1.375
BSSN-16003	1.0000	1.7500	1.000	.792	.030	1.7500	103,000	1.562
BSSN-18003	1.1250	2.1250	1.125	.906	.030	2.1250	134,000	1.750
BSSN-20003	1.2500	2.3125	1.250	1.000	.030	2.3125	164,000	1.937
BSSN-22003	1.3750	2.5625	1.375	1.100	.030	2.5625	201,000	2.156
BSSN-24003	1.5000	2.8125	1.500	1.200	.030	2.8125	239,000	2.344

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BSSN-8003-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"SSN" SERIES



RACE (STAINLESS STEEL)

BALL (STAINLESS STEEL)
HEAT TREATED
SPHERICAL SURFACE
HARD CHROME PLATED

LUBRICATION GROOVE
OPTIONAL

HIGH TEMPERATURE

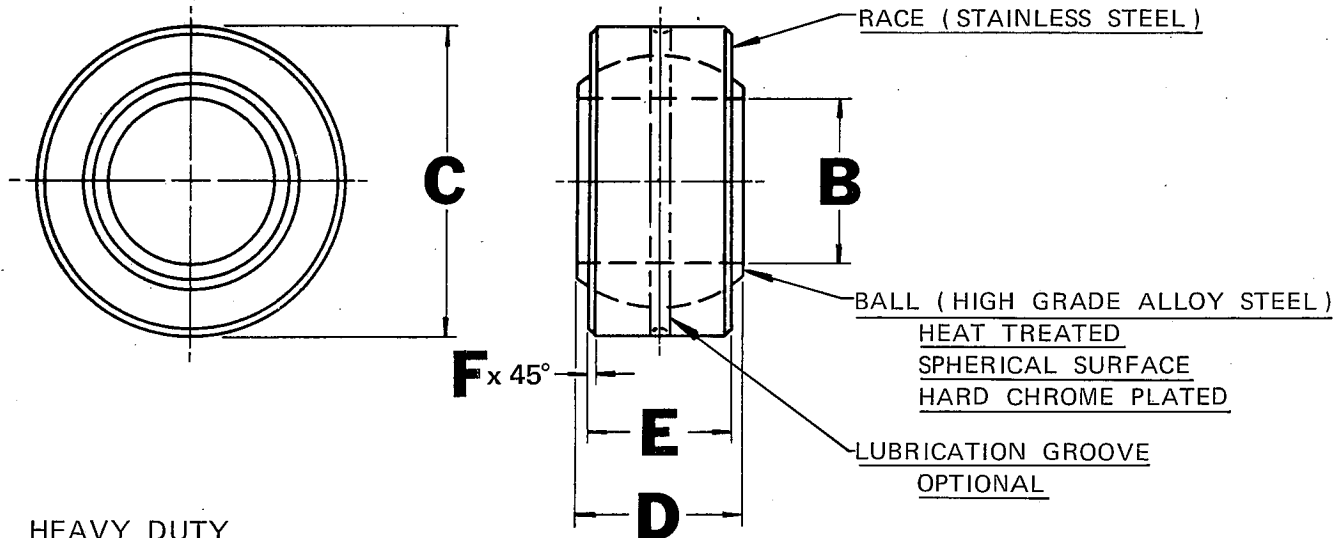
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BAN-3740	.1900	.5625	.281	.213	.020	.5625	3,400	.437
BAN-4970	.2500	.6562	.343	.245	.020	.6562	6,000	.500
BAN-5470	.3125	.7500	.375	.276	.020	.7500	8,400	.593
BAN-6550	.3750	.8125	.406	.307	.020	.8125	11,400	.625
BAN-7325	.4375	.9062	.437	.338	.020	.9062	14,000	.687
BAN-8485	.5000	1.0000	.500	.385	.030	1.0000	15,900	.781
BAN-9095	.5625	1.0937	.562	.432	.030	1.0937	22,000	.875
BAN-10420	.6250	1.1875	.625	.495	.030	1.1875	30,000	1.000
BAN-12355	.7500	1.4375	.750	.588	.030	1.4375	46,100	1.250
BAN-14210	.8750	1.5625	.875	.698	.030	1.5625	66,000	1.375
BAN-16275	1.0000	1.7500	1.000	.792	.030	1.7500	77,300	1.562
BAN-18500	1.1250	2.1250	1.125	.906	.030	2.1250	99,000	1.750
BAN-20500	1.2500	2.3125	1.250	1.000	.030	2.3125	121,000	1.937
BAN-22500	1.3750	2.5625	1.375	1.100	.030	2.5625	148,000	2.156
BAN-24250	1.5000	2.8125	1.500	1.200	.030	2.8125	175,000	2.344

NOTES:

1. THESE BEARINGS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
3. SHORT TIME LOADING 15 MINUTES MAXIMUM AT 1000° F.
4. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BAN-8485-G.
5. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"HTN" SERIES



HEAVY DUTY

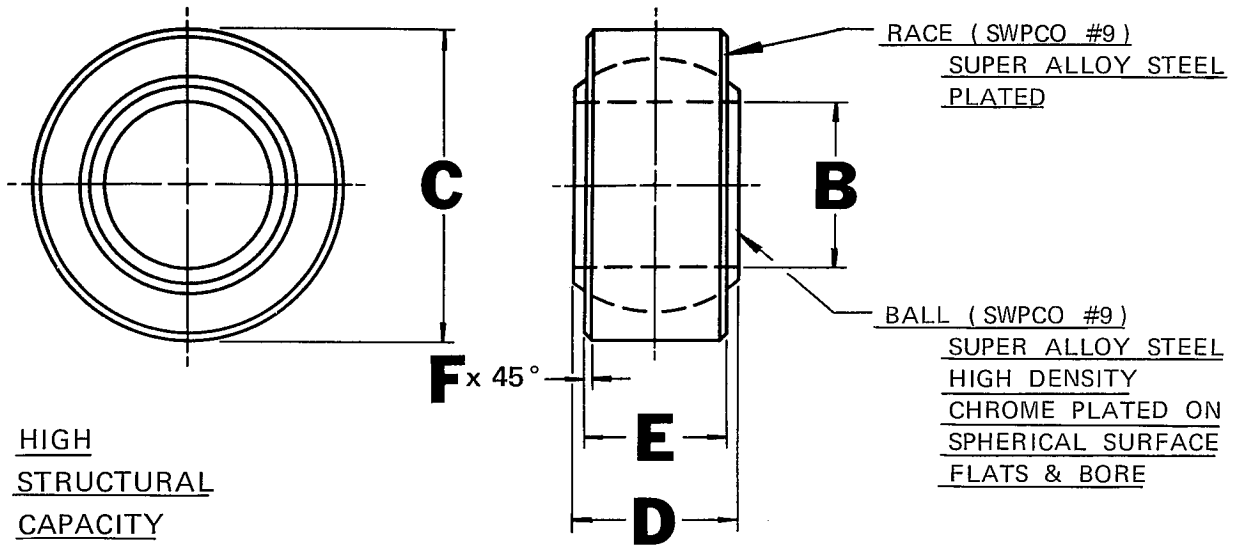
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BHDN-3003	.1900	.5625	.281	.213	.020	.5625	7,750	.437
BHDN-4003	.2500	.6562	.343	.245	.020	.6562	13,000	.500
BHDN-5003	.3125	.7500	.375	.276	.020	.7500	20,000	.593
BHDN-6003	.3750	.8125	.406	.307	.020	.8125	34,500	.625
BHDN-7003	.4375	.9062	.437	.338	.020	.9062	40,500	.687
BHDN-8003	.5000	1.0000	.500	.385	.030	1.0000	45,000	.781
BHDN-9003	.5625	1.0937	.562	.432	.030	1.0937	62,000	.875
BHDN-10003	.6250	1.1875	.625	.495	.030	1.1875	78,500	1.000
BHDN-12003	.7500	1.4375	.750	.588	.030	1.4375	110,000	1.250
BHDN-14003	.8750	1.5625	.875	.698	.030	1.5625	130,000	1.375
BHDN-16003	1.0000	1.7500	1.000	.792	.030	1.7500	160,000	1.562
BHDN-18003	1.1250	2.1250	1.125	.906	.030	2.1250	203,000	1.750
BHDN-20003	1.2500	2.3125	1.250	1.000	.030	2.3125	248,000	1.937
BHDN-22003	1.3750	2.5625	1.375	1.100	.030	2.5625	304,000	2.156
BHDN-24003	1.5000	2.8125	1.500	1.200	.030	2.8125	360,000	2.344

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BHDN-3003-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

HEAVY DUTY
"HDN" SERIES





BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.002	RACE WIDTH +.010 -.000	CHAMF. MIN.			
SWBN-3	.1900	.5625	.281	.213	.020	.5625	19,400	.437
SWBN-4	.2500	.6562	.343	.245	.020	.6562	26,600	.500
SWBN-5	.3125	.7500	.375	.276	.020	.7500	36,500	.593
SWBN-6	.3750	.8125	.406	.307	.020	.8125	43,500	.625
SWBN-7	.4375	.9062	.437	.338	.020	.9062	54,000	.687
SWBN-8	.5000	1.0000	.500	.385	.030	1.0000	71,000	.781
SWBN-9	.5625	1.0937	.562	.432	.030	1.0937	91,000	.875
SWBN-10	.6250	1.1875	.625	.495	.030	1.1875	120,000	1.000
SWBN-12	.7500	1.4375	.750	.588	.030	1.4375	180,000	1.250
SWBN-14	.8750	1.5625	.875	.698	.030	1.5625	240,000	1.375
SWBN-16	1.0000	1.7500	1.000	.792	.030	1.7500	310,000	1.562
SWBN-18	1.1250	2.1250	1.125	.906	.030	2.1250	394,000	1.750
SWBN-20	1.2500	2.3125	1.250	1.000	.030	2.3125	481,000	1.937
SWBN-22	1.3750	2.5625	1.375	1.100	.030	2.5625	589,000	2.156
SWBN-24	1.5000	2.8125	1.500	1.200	.030	2.8125	700,000	2.344

NOTES:

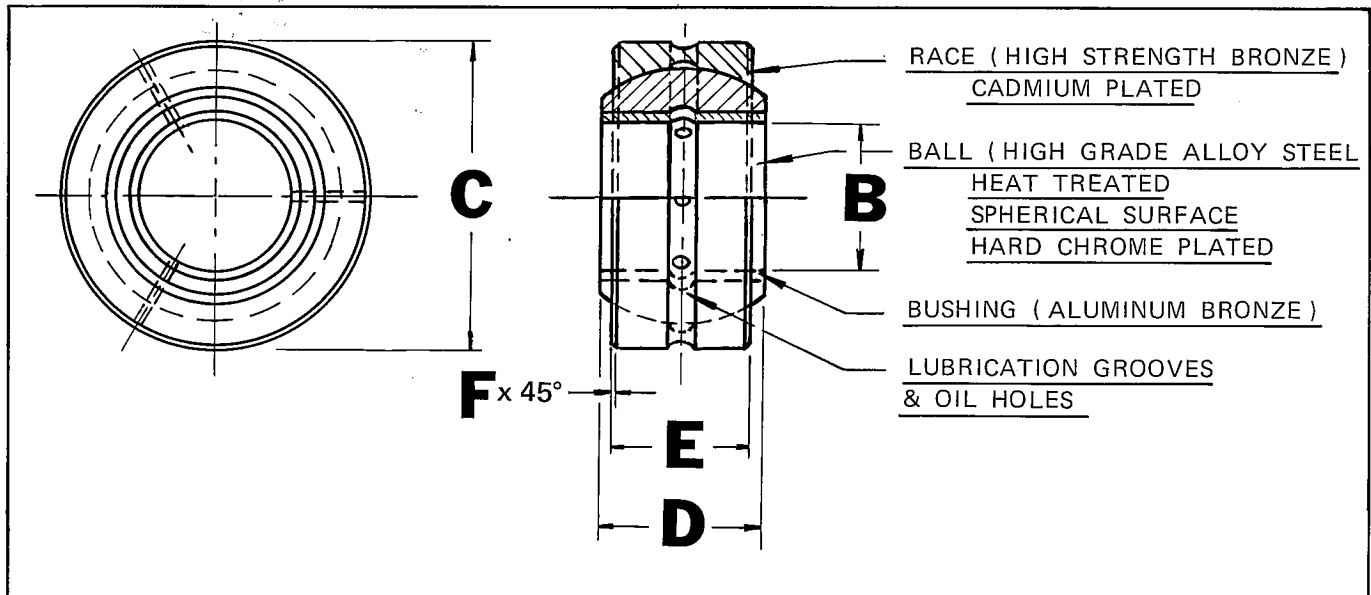
1. LOAD RATINGS SHOWN FOR USE IN TEMPERATURE RANGE -420° F TO +400° F.
2. HIGH IMPACT STRENGTH FOR CRYOGENIC USE.

SHORT TIME HIGH TEMPERATURE RATINGS					
TEMP.	400° F	600° F	800° F	900° F	1000° F
% ULT. LOAD	90%	86%	80%	72%	55%



"SWBN" SERIES

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS + .0000 - .0005	YIELD STATIC LOAD IN LBS. RADIAL	BALL DIA. (REF.)
	BORE + .0005 - .0005	OUTSIDE DIAMETER + .0000 - .0005	BALL WIDTH + .000 - .005	RACE WIDTH + .010 - .000	CHAMF. + .000 - .010			
BLN- 3-2100	.1900	.5937	.281	.213	.020	.5937	2,000	.468
BLN- 4-2100	.2500	.6875	.343	.245	.022	.6875	3,200	.562
BLN- 5-2100	.3125	.8125	.375	.276	.032	.8125	4,500	.625
BLN- 6-2100	.3750	.8750	.406	.307	.032	.8750	5,700	.687
BLN- 7-2100	.4375	.9687	.437	.338	.032	.9687	7,200	.781
BLN- 8-2100	.5000	1.0625	.500	.385	.032	1.0625	10,000	.875
BLN- 9-2100	.5625	1.1875	.562	.432	.032	1.1875	14,000	.969
BLN-10-2100	.6250	1.3125	.625	.495	.044	1.3125	15,500	1.062
BLN-12-2100	.7500	1.5000	.750	.588	.044	1.5000	22,500	1.250
BLN-14-2100	.8750	1.6875	.875	.698	.044	1.6875	30,000	1.421
BLN-16-2100	1.0000	1.9375	1.000	.792	.044	1.9375	38,000	1.625
BLN-19-2100	1.1875	2.6250	1.250	.995	.050	2.6250	60,000	2.187

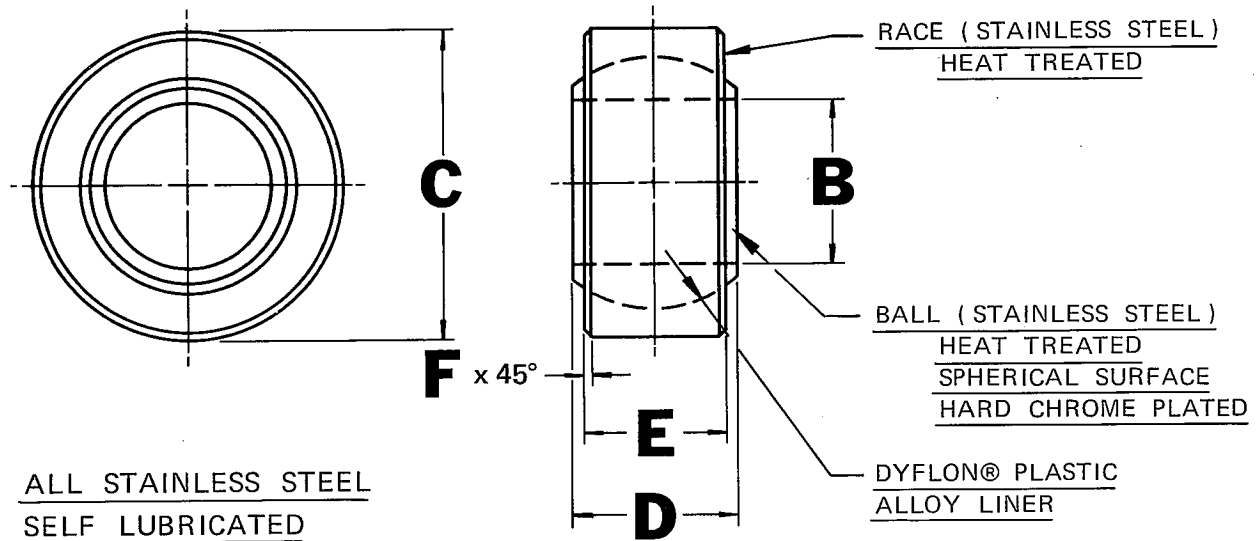
NOTES:

1. DIMENSIONS APPLY AFTER CADMIUM PLATING.
2. LUBRICATION GROOVES ON O.D. AND I.D. OF RACE, I.D. OF BALL AND BUSHING ONLY. WITH OIL HOLES THRU RACE, BALL AND BUSHING.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



INNER SLEEVE "LN" SERIES

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



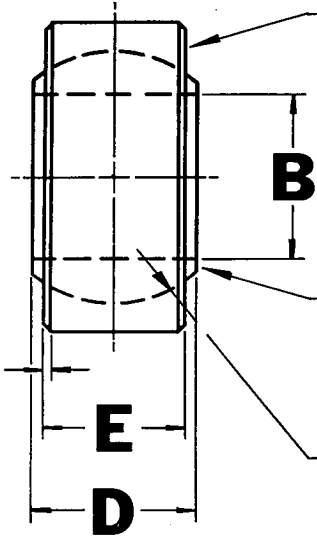
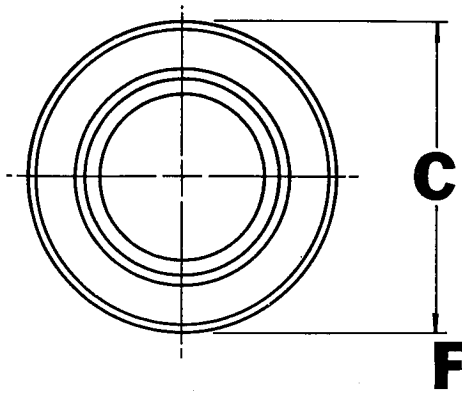
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFN- 3	.1900	.5625	.281	.213	.020	.5625	4,500	.437
BLFN- 4	.2500	.6562	.343	.245	.020	.6562	8,000	.500
BLFN- 5	.3125	.7500	.375	.276	.020	.7500	11,300	.593
BLFN- 6	.3750	.8125	.406	.307	.020	.8125	15,300	.625
BLFN- 7	.4375	.9062	.437	.338	.020	.9062	18,700	.718
BLFN- 8	.5000	1.0000	.500	.385	.030	1.0000	21,300	.781
BLFN- 9	.5625	1.0937	.562	.432	.030	1.0937	29,400	.875
BLFN-10	.6250	1.1875	.625	.495	.030	1.1875	40,000	1.000
BLFN-12	.7500	1.4375	.750	.588	.030	1.4375	61,500	1.250
BLFN-14	.8750	1.5625	.875	.698	.030	1.5625	88,000	1.375
BLFN-16	1.0000	1.7500	1.000	.792	.030	1.7500	103,000	1.562
BLFN-18	1.1250	2.1250	1.125	.906	.030	2.1250	134,000	1.750
BLFN-20	1.2500	2.3125	1.250	1.000	.030	2.3125	164,000	1.937
BLFN-22	1.3750	2.5625	1.375	1.100	.030	2.5625	201,000	2.156
BLFN-24	1.5000	2.8125	1.500	1.200	.030	2.8125	239,000	2.344

NOTES:

1. DYFLON® BEARINGS
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



LOW FRICTION "LFN" SERIES



RACE (ALUMINUM ALLOY)
ALODINE

BALL (ALUMINUM ALLOY)
HEAT TREATED
SPHERICAL SURFACE
HARD ANODIZE

DYFLON® PLASTIC
ALLOY LINER

ALL ALUMINUM ALLOY
SELF LUBRICATED

BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFN- 3-075	.1900	.5625	.281	.213	.020	.5625	4,500	.437
BLFN- 4-075	.2500	.6562	.343	.245	.020	.6562	4,500	.500
BLFN- 5-075	.3125	.7500	.375	.276	.020	.7500	6,000	.593
BLFN- 6-075	.3750	.8125	.406	.307	.020	.8125	8,200	.625
BLFN- 7-075	.4375	.9062	.437	.338	.020	.9062	10,000	.718
BLFN- 8-075	.5000	1.0000	.500	.385	.020	1.0000	12,800	.781
BLFN- 9-075	.5625	1.0937	.562	.432	.020	1.0937	16,200	.875
BLFN-10-075	.6250	1.1875	.625	.495	.020	1.1875	21,200	1.000
BLFN-12-075	.7500	1.4375	.750	.588	.020	1.4375	31,200	1.250
BLFN-14-075	.8750	1.5625	.875	.698	.020	1.5625	41,200	1.375
BLFN-16-075	1.0000	1.7500	1.000	.792	.020	1.7500	62,500	1.562
BLFN-18-075	1.1250	2.1250	1.125	.906	.030	2.1250	67,300	1.750
BLFN-20-075	1.2500	2.3125	1.250	1.000	.030	2.3125	82,000	1.937
BLFN-22-075	1.3750	2.5625	1.375	1.100	.030	2.5625	101,000	2.156
BLFN-24-075	1.5000	2.8125	1.500	1.200	.030	2.8125	120,000	2.344

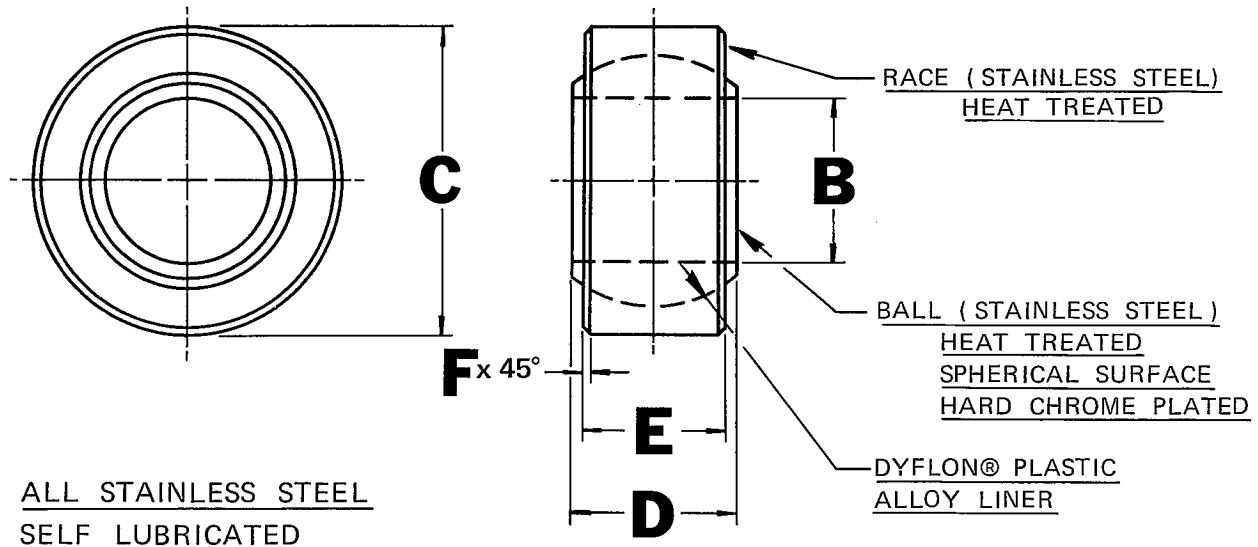
NOTES:

1. DYFLON® BEARINGS
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

ALUMINUM ALLOY
LOW FRICTION "LFN" SERIES



U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. No. 640,638.



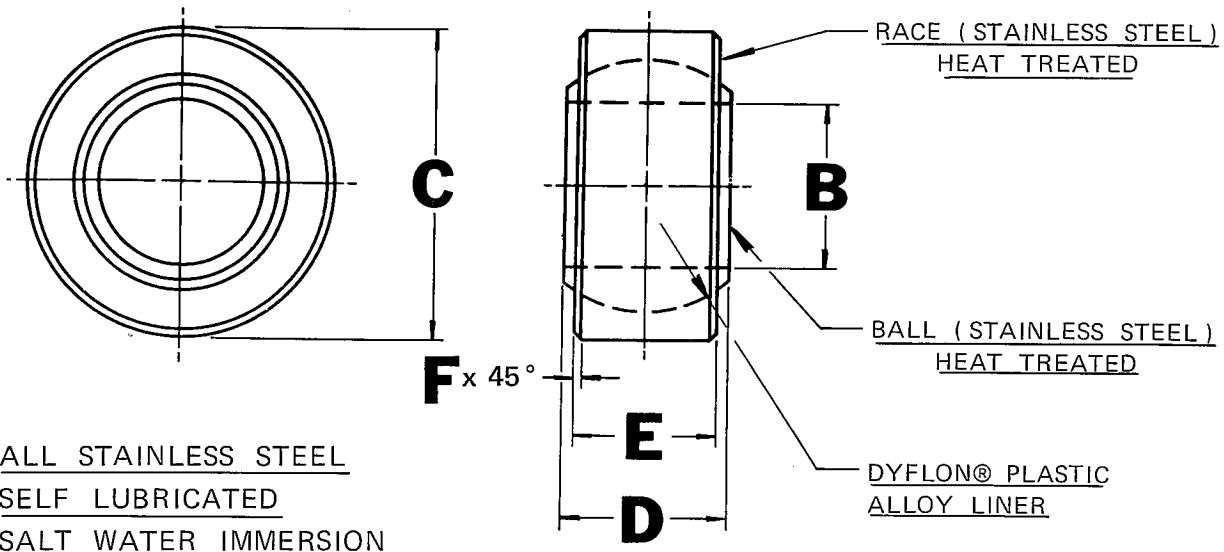
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.002	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFN- 3-100	.1900	.5625	.281	.213	.020	.5625	4,500	.437
BLFN- 4-100	.2500	.6562	.344	.245	.020	.6562	8,000	.500
BLFN- 5-100	.3125	.7500	.375	.276	.020	.7500	11,300	.593
BLFN- 6-100	.3750	.8125	.406	.307	.020	.8125	15,300	.625
BLFN- 7-100	.4375	.9062	.437	.338	.020	.9062	18,700	.718
BLFN- 8-100	.5000	1.0000	.500	.385	.030	1.0000	21,300	.781
BLFN- 9-100	.5625	1.0937	.562	.432	.030	1.0937	29,400	.875
BLFN-10-100	.6250	1.1875	.625	.495	.030	1.1875	40,000	1.000
BLFN-12-100	.7500	1.4375	.750	.588	.030	1.4375	61,500	1.250
BLFN-14-100	.8750	1.5625	.875	.698	.030	1.5625	88,000	1.375
BLFN-16-100	1.0000	1.7500	1.000	.792	.030	1.7500	103,000	1.562
BLFN-18-100	1.1250	2.1250	1.125	.906	.030	2.1250	134,000	1.750
BLFN-20-100	1.2500	2.3125	1.250	1.000	.030	2.3125	164,000	1.937
BLFN-22-100	1.3750	2.5625	1.375	1.100	.030	2.5625	201,000	2.156
BLFN-24-100	1.5000	2.8125	1.500	1.200	.030	2.8125	239,000	2.344

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

LOW FRICTION "LFN-100" SERIES





BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFN- 3-485	.1900	.5625	.281	.213	.020	.5625	4,500	.437
BLFN- 4-485	.2500	.6562	.343	.245	.020	.6562	8,000	.500
BLFN- 5-485	.3125	.7500	.375	.276	.020	.7500	11,300	.593
BLFN- 6-485	.3750	.8125	.406	.307	.020	.8125	15,300	.625
BLFN- 7-485	.4375	.9062	.437	.338	.020	.9062	18,700	.718
BLFN- 8-485	.5000	1.0000	.500	.385	.030	1.0000	21,300	.781
BLFN- 9-485	.5625	1.0937	.562	.432	.030	1.0937	29,400	.875
BLFN-10-485	.6250	1.1875	.625	.495	.030	1.1875	40,000	1.000
BLFN-12-485	.7500	1.4375	.750	.588	.030	1.4375	61,500	1.250
BLFN-14-485	.8750	1.5625	.875	.698	.030	1.5625	88,000	1.375
BLFN-16-485	1.0000	1.7500	1.000	.792	.030	1.7500	103,000	1.562
BLFN-18-485	1.1250	2.1250	1.125	.906	.030	2.1250	134,000	1.750
BLFN-20-485	1.2500	2.3125	1.250	1.000	.030	2.3125	164,000	1.937
BLFN-22-485	1.3750	2.5625	1.375	1.100	.030	2.5625	201,000	2.156
BLFN-24-485	1.5000	2.8125	1.500	1.200	.030	2.8125	239,000	2.344

NOTES:

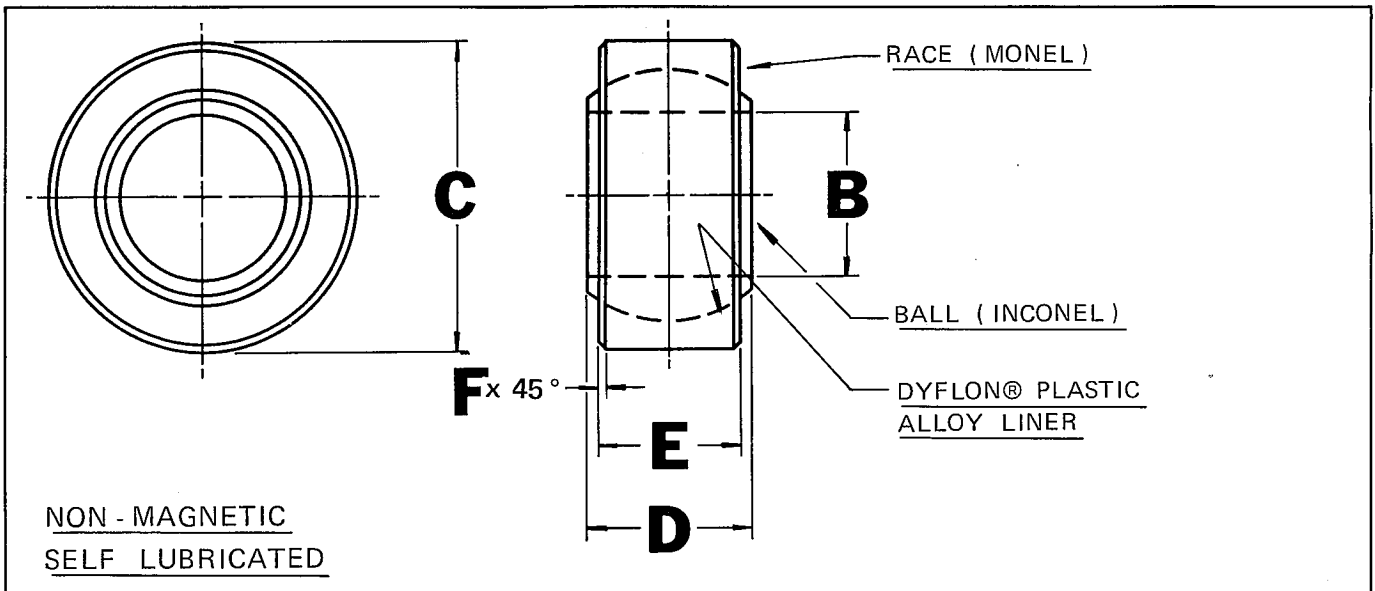
1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



LOW FRICTION "LFN-485" SERIES

U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. No. 640,638.

COPYRIGHT 1959 BY SOUTHWEST PRODUCTS CO.



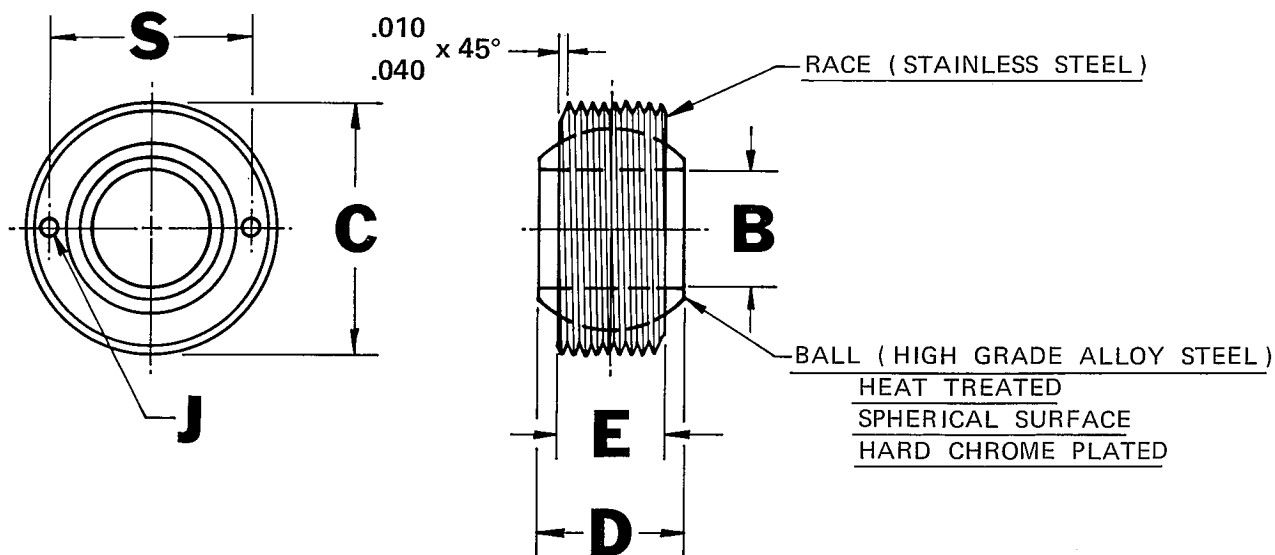
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS + .0000 - .0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE + .0000 - .0005	OUTSIDE DIAMETER + .0000 - .0005	BALL WIDTH + .000 - .005	RACE WIDTH + .010 - .000	CHAMF. MIN.			
SWPBLFN-3-005	.1900	.5625	.281	.213	.020	.5625	4,500	.437
SWPBLFN-4-005	.2500	.6562	.343	.245	.020	.6562	8,000	.500
SWPBLFN-5-005	.3125	.7500	.375	.276	.020	.7500	11,300	.593
SWPBLFN-6-005	.3750	.8125	.406	.307	.020	.8125	15,300	.625
SWPBLFN-7-005	.4375	.9062	.437	.338	.020	.9062	18,700	.718
SWPBLFN-8-005	.5000	1.0000	.500	.385	.030	1.0000	21,300	.781
SWPBLFN-9-005	.5625	1.0937	.562	.432	.030	1.0937	29,400	.875
SWPBLFN-10-005	.6250	1.1875	.625	.495	.030	1.1875	40,000	1.000
SWPBLFN-12-005	.7500	1.4375	.750	.588	.030	1.4375	61,500	1.250
SWPBLFN-14-005	.8750	1.5625	.875	.698	.030	1.5625	88,000	1.375
SWPBLFN-16-005	1.0000	1.7500	1.000	.792	.030	1.7500	103,000	1.562
SWPBLFN-18-005	1.1250	2.1250	1.125	.906	.030	2.1250	134,000	1.750
SWPBLFN-20-005	1.2500	2.3125	1.250	1.000	.030	2.3125	164,000	1.937
SWPBLFN-22-005	1.3750	2.5625	1.375	1.100	.030	2.5625	201,000	2.156
SWPBLFN-24-005	1.5000	2.8125	1.500	1.200	.030	2.8125	239,000	2.344

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

**NON-MAGNETIC
LOW FRICTION "LFN" SERIES**





HEAVY DUTY

BEARING PART NUMBER	B	C	D	E	S & J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER THREADS CLASS 3A	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	SPANNER WRENCH ⌀ x DIA.		
BHDR-4897	.2500	11/16-20 UN	.437	.322	.562 x .028	17,750	.531
BHDR-5897	.3125	13/16-20 UNEF	.437	.312	.685 x .031	22,900	.625
BHDR-6897	.3750	7/8-20 UNEF	.500	.401	.718 x .031	34,100	.687
BHDR-7897	.4375	1-20 UNEF	.562	.437	.843 x .062	42,250	.781
BHDR-8897	.5000	1 1/8-16 UN	.625	.500	.937 x .062	54,150	.875
BHDR-9897	.5625	1 1/4-16 UN	.687	.531	1.062 x .062	65,800	1.000
BHDR-10897	.6250	1 5/16-16 UN	.750	.562	1.125 x .062	74,000	1.062
BHDR-12897	.7500	1 1/2-16 UN	.875	.625	1.312 x .062	96,800	1.250
BHDR-14897	.8750	1 5/8-16 UN	.875	.750	1.375 x .093	127,800	1.375
BHDR-16897	1.0000	2 1/8-16 UN	1.375	1.000	1.875 x .093	232,500	1.875
BHDR-20897	1.2500	2 3/8-16 UN	1.500	1.125	2.125 x .093	291,850	2.093
BHDR-22897	1.3750	2 1/2-16 UN	1.687	1.218	2.250 x .093	344,450	2.281
BHDR-24897	1.5000	2 5/8-16 UN	1.687	1.218	2.375 x .093	360,850	2.390
BHDR-26897	1.6250	2 7/8-16 UN	1.750	1.281	2.562 x .125	402,000	2.531
BHDR-28897	*1.7500	3-16 UN	1.812	1.312	2.687 x .125	434,700	2.672
BHDR-30897	*1.8750	3 1/8-16 UN	1.875	1.343	2.812 x .125	468,200	2.812
BHDR-32897	*2.0000	3 1/4-16 UN	1.937	1.375	2.937 x .125	500,700	2.937
BHDR-36897	*2.2500	3 5/8-16 UN	2.000	1.406	3.250 x .125	550,550	3.156
BHDR-40897	*2.5000	3 7/8-16 UN	2.062	1.437	3.500 x .125	612,400	3.437
BHDR-44897	*2.7500	4-16 UN	2.187	1.500	3.687 x .125	685,800	3.687
BHDR-48897	*3.0000	4 1/4-16 UN	2.312	1.562	3.968 x .125	762,600	3.937

*+.0000, -.0008

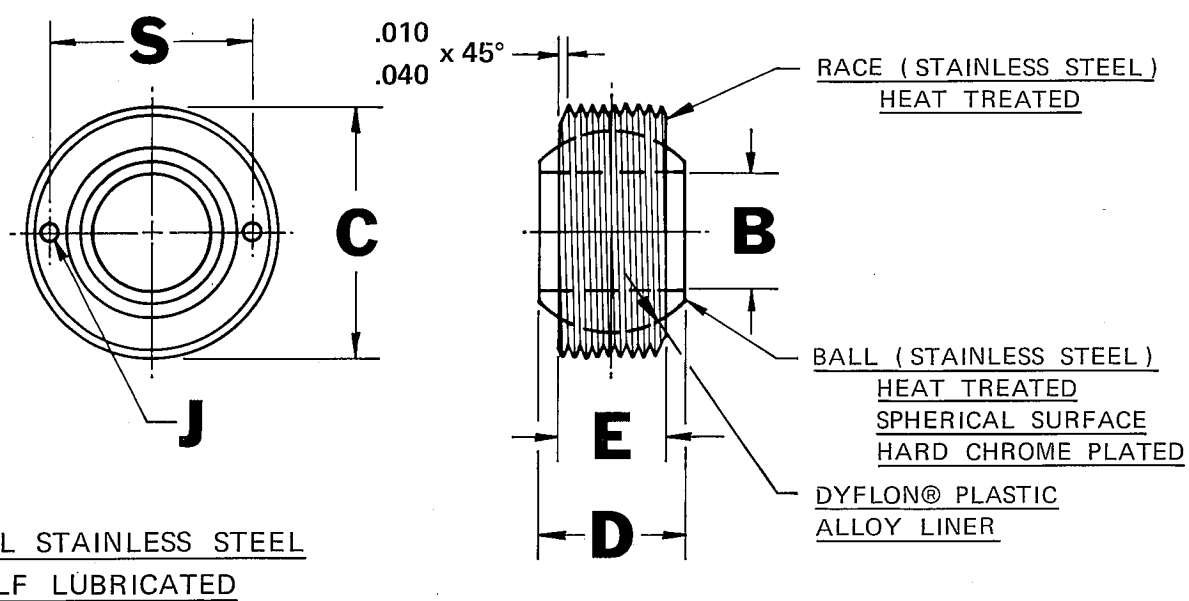
NOTES:

1. ADD "G-2" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
 EXAMPLE-BHDR-8897-G-2.

EXTERNALLY THREADED
"HD" SERIES



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



BEARING PART NUMBER	B	C	D	E	S & J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER THREADS CLASS 3A	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	SPANNER WRENCH t xDIA.		
BLFR-4-145	.2500	11/16 -20 UN	.437	.322	.562 x .028	7,360	.531
BLFR-5-145	.3125	13/16 -20 UNEF	.437	.312	.685 x .031	11,500	.625
BLFR-6-145	.3750	7/8 -20 UNEF	.500	.401	.718 x .031	17,600	.687
BLFR-7-145	.4375	1-20 UNEF	.562	.437	.843 x .062	22,500	.781
BLFR-8-145	.5000	1 1/8 -16 UN	.625	.500	.937 x .062	29,400	.875
BLFR-9-145	.5625	1 1/4 -16 UN	.687	.531	1.062 x .062	38,800	1.000
BLFR-10-145	.6250	1 5/16 -16 UN	.750	.562	1.125 x .062	46,000	1.062
BLFR-12-145	.7500	1 1/2 -16 UN	.875	.625	1.312 x .062	66,300	1.250
BLFR-14-145	.8750	1 5/8 -16 UN	.875	.750	1.375 x .093	90,100	1.375
BLFR-16-145	1.0000	2 1/8 -16 UN	1.375	1.000	1.875 x .093	117,800	1.875
BLFR-20-145	1.2500	2 3/8 -16 UN	1.500	1.125	2.125 x .093	182,100	2.093
BLFR-22-145	1.3750	2 1/2 -16 UN	1.687	1.218	2.250 x .093	232,200	2.281
BLFR-24-145	1.5000	2 5/8 -16 UN	1.687	1.218	2.375 x .093	243,000	2.390
BLFR-26-145	1.6250	2 7/8 -16 UN	1.750	1.281	2.562 x .125	272,000	2.531
BLFR-28-145	*1.7500	3-16 UN	1.812	1.312	2.687 x .125	292,000	2.672
BLFR-30-145	*1.8750	3 1/8 -16 UN	1.875	1.343	2.812 x .125	315,000	2.812
BLFR-32-145	*2.0000	3 1/4 -16 UN	1.937	1.375	2.937 x .125	338,000	2.937
BLFR-36-145	*2.2500	3 5/8 -16 UN	2.000	1.406	3.250 x .125	371,000	3.156
BLFR-40-145	*2.5000	3 7/8 -16 UN	2.062	1.437	3.500 x .125	413,000	3.437
BLFR-44-145	*2.7500	4-16 UN	2.187	1.500	3.687 x .125	462,000	3.687
BLFR-48-145	*3.0000	4 1/4 -16 UN	2.312	1.562	3.968 x .125	513,000	3.937

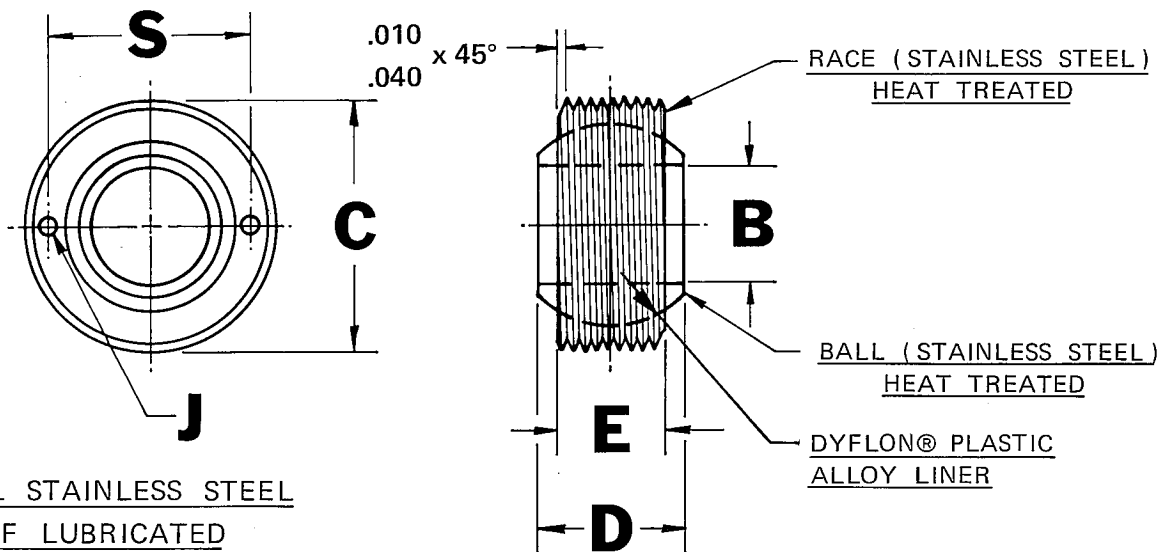
*+.0000, -.0008

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.

**EXTERNALLY THREADED
LOW FRICTION "LF" SERIES**





ALL STAINLESS STEEL
SELF LUBRICATED
SALT WATER IMMERSION

BEARING PART NUMBER	B	C	D	E	S & J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER THREADS CLASS 3A	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	SPANNER WRENCH ϕ x DIA.		
BLFR- 4-545	.2500	11/16-20 UN	.437	.322	.562 x .028	7,360	.531
BLFR- 5-545	.3125	13/16-20 UNEF	.437	.312	.685 x .031	11,500	.625
BLFR- 6-545	.3750	7/8-20 UNEF	.500	.401	.718 x .031	17,600	.687
BLFR- 7-545	.4375	1-20 UNEF	.562	.437	.843 x .062	22,500	.781
BLFR- 8-545	.5000	1 1/8-16 UN	.625	.500	.937 x .062	29,400	.875
BLFR- 9-545	.5625	1 1/4-16 UN	.687	.531	1.062 x .062	38,800	1.000
BLFR-10-545	.6250	1 5/16-16 UN	.750	.562	1.125 x .062	46,000	1.062
BLFR-12-545	.7500	1 1/2-16 UN	.875	.625	1.312 x .062	66,300	1.250
BLFR-14-545	.8750	1 5/8-16 UN	.875	.750	1.375 x .093	90,100	1.375
BLFR-16-545	1.0000	2 1/8-16 UN	1.375	1.000	1.875 x .093	117,800	1.875
BLFR-20-545	1.2500	2 3/8-16 UN	1.500	1.125	2.125 x .093	182,100	2.093
BLFR-22-545	1.3750	2 1/2-16 UN	1.687	1.218	2.250 x .093	232,200	2.281
BLFR-24-545	1.5000	2 5/8-16 UN	1.687	1.218	2.375 x .093	243,000	2.390
BLFR-26-545	1.6250	2 7/8-16 UN	1.750	1.281	2.562 x .125	272,000	2.531
BLFR-28-545	*1.7500	3-16 UN	1.812	1.312	2.687 x .125	292,000	2.672
BLFR-30-545	*1.8750	3 1/8-16 UN	1.875	1.343	2.812 x .125	315,000	2.812
BLFR-32-545	*2.0000	3 1/4-16 UN	1.937	1.375	2.937 x .125	338,000	2.937
BLFR-36-545	*2.2500	3 5/8-16 UN	2.000	1.406	3.250 x .125	371,000	3.156
BLFR-40-545	*2.5000	3 7/8-16 UN	2.062	1.437	3.500 x .125	413,000	3.437
BLFR-44-545	*2.7500	4-16 UN	2.187	1.500	3.687 x .125	462,000	3.687
BLFR-48-545	*3.0000	4 1/4-16 UN	2.312	1.562	3.968 x .125	513,000	3.937

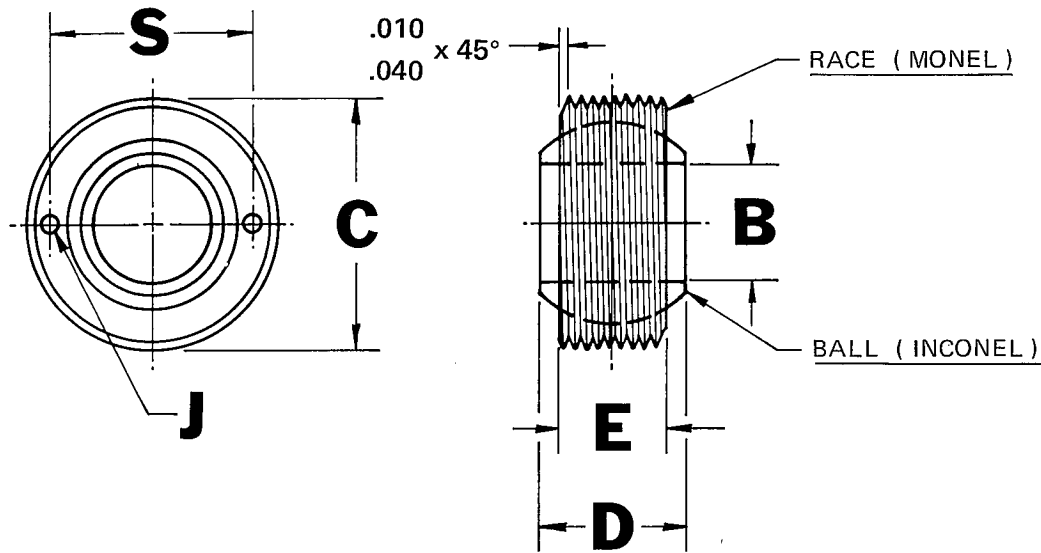
*+.0000, -.0008

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.

**EXTERNALLY THREADED
 LOW FRICTION "LF" SERIES**





NON - MAGNETIC

BEARING PART NUMBER	B	C	D	E	S & J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER THREADS CLASS 3A	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	SPANNER WRENCH ϕ x DIA.		
SWPBR- 4-897	.2500	11/16-20 UN	.437	.322	.562 x .028	7,360	.531
SWPBR- 5-897	.3125	13/16-20 UNEF	.437	.312	.685 x .031	14,800	.625
SWPBR- 6-897	.3750	7/8-20 UNEF	.500	.401	.718 x .031	20,900	.687
SWPBR- 7-897	.4375	1-20 UNEF	.562	.437	.843 x .062	25,900	.781
SWPBR- 8-897	.5000	1 1/8-16 UN	.625	.500	.937 x .062	33,300	.875
SWPBR- 9-897	.5625	1 1/4-16 UN	.687	.531	1.062 x .062	40,400	1.000
SWPBR-10-897	.6250	1 5/16-16 UN	.750	.562	1.125 x .062	45,400	1.062
SWPBR-12-897	.7500	1 1/2-16 UN	.875	.625	1.312 x .062	59,400	1.250
SWPBR-14-897	.8750	1 5/8-16 UN	.875	.750	1.375 x .093	78,400	1.375
SWPBR-16-897	1.0000	2 1/8-16 UN	1.375	1.000	1.875 x .093	142,500	1.875
SWPBR-20-897	1.2500	2 3/8-16 UN	1.500	1.125	2.125 x .093	179,000	2.093
SWPBR-22-897	1.3750	2 1/2-16 UN	1.687	1.218	2.250 x .093	210,000	2.281
SWPBR-24-897	1.5000	2 5/8-16 UN	1.687	1.218	2.375 x .093	220,000	2.390
SWPBR-26-897	1.6250	2 7/8-16 UN	1.750	1.281	2.562 x .125	246,000	2.531
SWPBR-28-897	*1.7500	3-16 UN	1.812	1.312	2.687 x .125	267,000	2.672
SWPBR-30-897	*1.8750	3 1/8-16 UN	1.875	1.343	2.812 x .125	288,000	2.812
SWPBR-32-897	*2.0000	3 1/4-16 UN	1.937	1.375	2.937 x .125	307,000	2.937
SWPBR-36-897	*2.2500	3 5/8-16 UN	2.000	1.406	3.250 x .125	479,000	3.156
SWPBR-40-897	*2.5000	3 7/8-16 UN	2.062	1.437	3.500 x .125	539,000	3.437
SWPBR-44-897	*2.7500	4-16 UN	2.187	1.500	3.687 x .125	614,000	3.687
SWPBR-48-897	*3.0000	4 1/4-16 UN	2.312	1.562	3.968 x .125	694,000	3.937

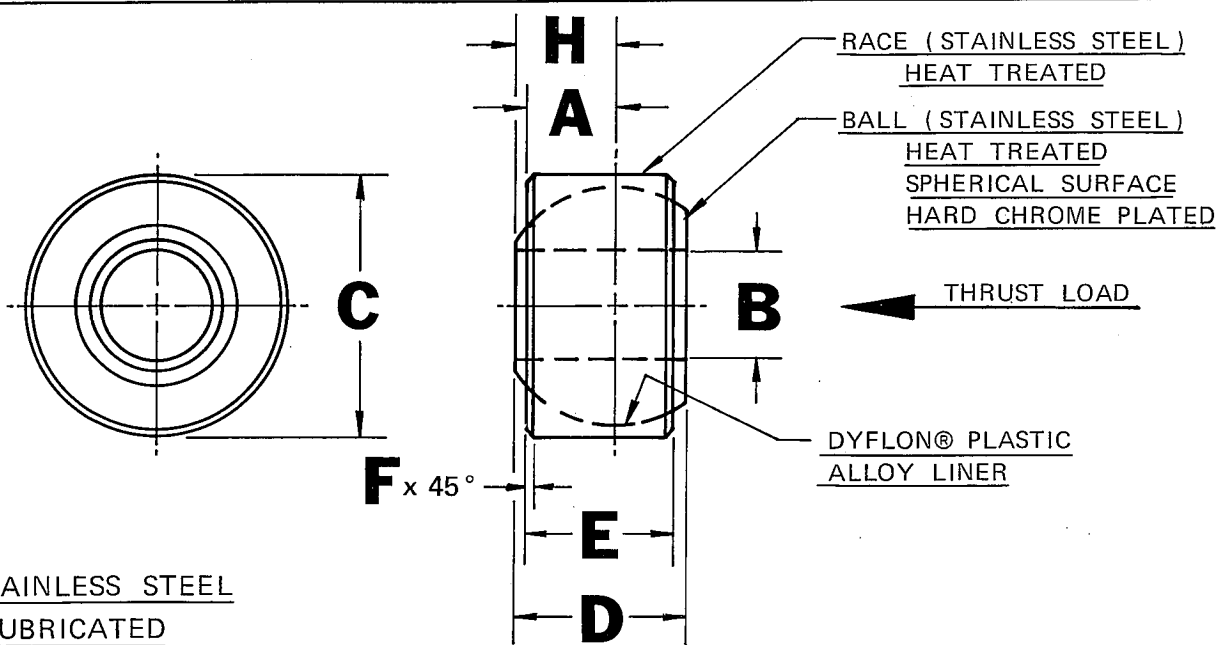
*+.0000, -.0008

NOTES

1. ADD "G-2" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-SWPBR-8-897-G-2.

**EXTERNALLY THREADED
NON-MAGNETIC SERIES**





BEARING PART NUMBER	B	A	C	D	E	F	H	MIS-ALIGNMENT ANGLE MIN.	ULTIMATE STATIC THRUST LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	± OF BALL TO RACE +.005 -.000	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.005 -.005	CHAMF. MIN.	± OF BALL TO EDGE ±.005			
BTLF-4	.2500	.250	.8125	.437	.375	.025	.281	3°	8,200	.687
BTLF-5	.3125	.295	.9375	.562	.500	.025	.326	3°	11,300	.781
BTLF-6	.3750	.325	1.0000	.600	.531	.025	.359	3°	14,200	.875
BTLF-7	.4375	.375	1.1250	.656	.578	.025	.414	3°	19,000	1.000
BTLF-8	.5000	.400	1.1875	.700	.625	.025	.437	3°	22,500	1.062
BTLF-9	.5625	.467	1.3750	.875	.781	.025	.514	3°	29,400	1.250
BTLF-10	.6250	.525	1.5625	.937	.825	.025	.581	4°	38,000	1.375
BTLF-12	.7500	.578	1.7500	1.000	.895	.025	.630	3°	44,500	1.562
BTLF-14	.8750	.670	2.0000	1.120	.995	.025	.732	3°	61,000	1.781
BTLF-14-001	.8750	.700	2.1250	1.281	1.140	.025	.770	4°	69,500	1.781
BTLF-16	1.0000	.755	2.3750	1.437	1.250	.025	.848	5°	74,500	2.093
BTLF-16-001	1.0000	.755	2.3750	1.312	1.135	.025	.843	4°	74,500	2.093
BTLF-20	1.2505	.610	2.0000	1.080	.975	.035	*.610	0°	45,000	1.812
BTLF-20-001	1.2505	.812	2.5625	1.500	1.312	.035	.906	5°	84,500	2.281
BTLF-22	1.3750	.828	*2.7500	1.562	1.343	.035	.937	5°	87,700	2.500
BTLF-24	1.5000	.843	*3.0000	1.625	1.375	.035	.968	5°	90,900	2.687
BTLF-26	1.6250	.859	*3.1250	1.687	1.406	.035	1.000	6°	94,400	2.750
BTLF-28	*1.7500	.875	*3.2500	1.750	1.437	.035	1.031	6°	98,000	2.875
BTLF-30	*1.8750	.890	*3.3750	1.875	1.468	.035	1.093	8°	101,000	3.000
BTLF-32	*2.0000	.906	*3.5000	1.875	1.500	.035	1.093	7°	105,000	3.125
BTLF-36	*2.2500	.875	*3.9062	2.000	1.406	.035	1.187	10°	98,000	3.437
BTLF-40	*2.5000	.937	*4.1250	2.062	1.437	.035	1.250	10°	112,000	3.687
BTLF-44	*2.7500	1.125	*4.3750	2.187	1.500	.035	1.312	7°	162,000	3.937

NOTES:

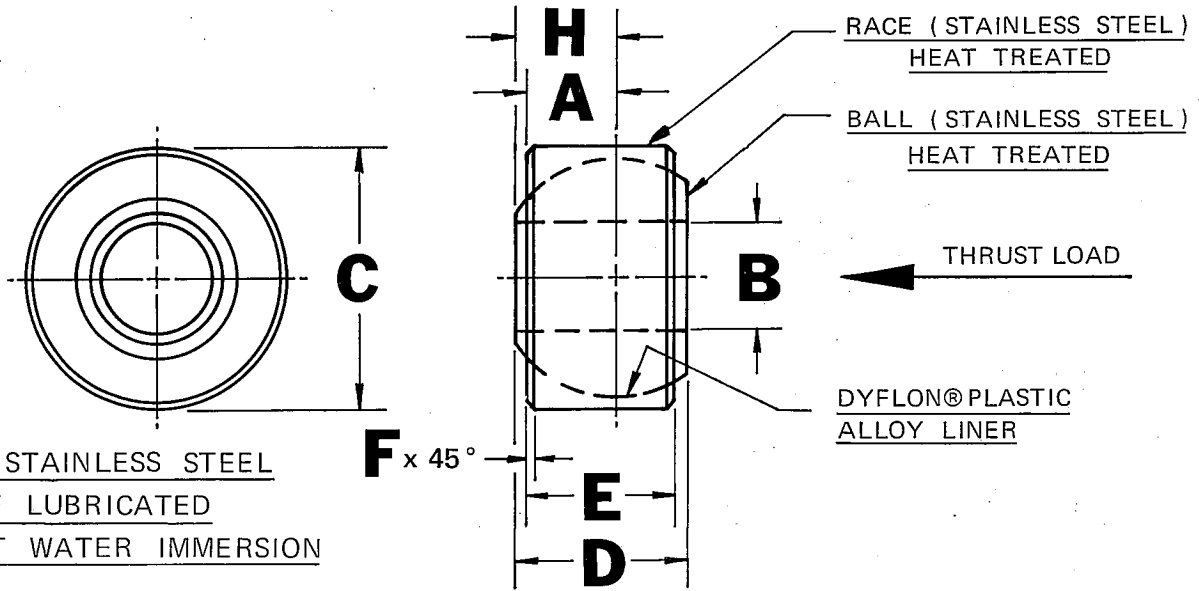
1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.

*+.0000
-.0008

*+.005
-.000

**THRUST BEARING
LOW FRICTION "BTLF" SERIES**





BEARING PART NUMBER	B	A	C	D	E	F	H	MIS- ALIGN- MENT ANGLE MIN.	ULTIMATE STATIC THRUST LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	Ø OF BALL TO RACE +.005 -.000	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.005 -.005	CHAMF. MIN.	Ø OF BALL TO EDGE ±.005			
BTLF- 4-235	.2500	.250	.8125	.437	.375	.025	.281	3°	8,200	.687
BTLF- 5-235	.3125	.295	.9375	.562	.500	.025	.326	3°	11,300	.781
BTLF- 6-235	.3750	.325	1.0000	.600	.531	.025	.359	3°	14,200	.875
BTLF- 7-235	.4375	.375	1.1250	.656	.578	.025	.414	3°	19,000	1.000
BTLF- 8-235	.5000	.400	1.1875	.700	.625	.025	.437	3°	22,250	1.062
BTLF- 9-235	.5625	.467	1.3750	.875	.781	.025	.514	3°	29,400	1.250
BTLF-10-235	.6250	.525	1.5625	.937	.825	.025	.581	4°	38,000	1.375
BTLF-12-235	.7500	.578	1.7500	1.000	.895	.025	.630	3°	44,500	1.562
BTLF-14-235	.8750	.670	2.0000	1.120	.995	.025	.732	3°	61,000	1.781
BTLF-14-240	.8750	.700	2.1250	1.281	1.140	.025	.770	4°	69,500	1.781
BTLF-16-235	1.0000	.755	2.3750	1.437	1.250	.025	.848	5°	74,500	2.093
BTLF-16-240	1.0000	.755	2.3750	1.312	1.135	.025	.843	4°	74,500	2.093
BTLF-20-235	1.2505	.610	2.0000	1.080	.975	.035	*.610	0°	45,000	1.812
BTLF-20-240	1.2505	.812	2.5625	1.500	1.312	.035	.906	5°	84,500	2.281
BTLF-22-235	1.3750	.828	2.7500	1.562	1.343	.035	.937	5°	87,700	2.500
BTLF-24-235	1.5000	.843	3.0000	1.625	1.375	.035	.968	5°	90,900	2.687
BTLF-26-235	1.6250	.859	3.1250	1.687	1.406	.035	1.000	6°	94,400	2.750
BTLF-28-235	*1.7500	.875	*3.2500	1.750	1.437	.035	1.031	6°	98,000	2.875
BTLF-30-235	*1.8750	.890	*3.3750	1.875	1.468	.035	1.093	8°	101,000	3.000
BTLF-32-235	*2.0000	.906	*3.5000	1.875	1.500	.035	1.093	7°	105,000	3.125
BTLF-36-235	*2.2500	.875	*3.9062	2.000	1.406	.035	1.187	10°	98,000	3.437
BTLF-40-235	*2.5000	.937	*4.1250	2.062	1.437	.035	1.250	10°	112,000	3.687
BTLF-44-235	*2.7500	1.125	*4.3750	2.187	1.500	.035	1.312	7°	162,000	3.937

NOTES:

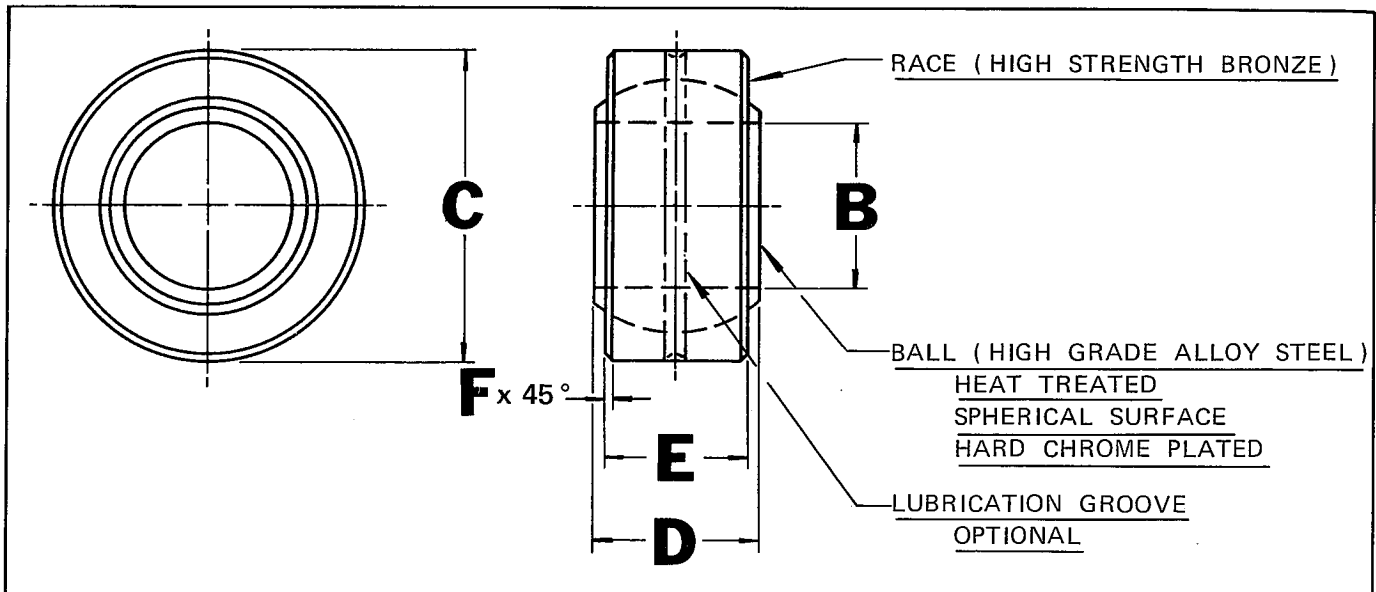
1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.

*+.0000, -.0008

*+.005, -.000

**THRUST BEARING
LOW FRICTION "BTLF" SERIES**





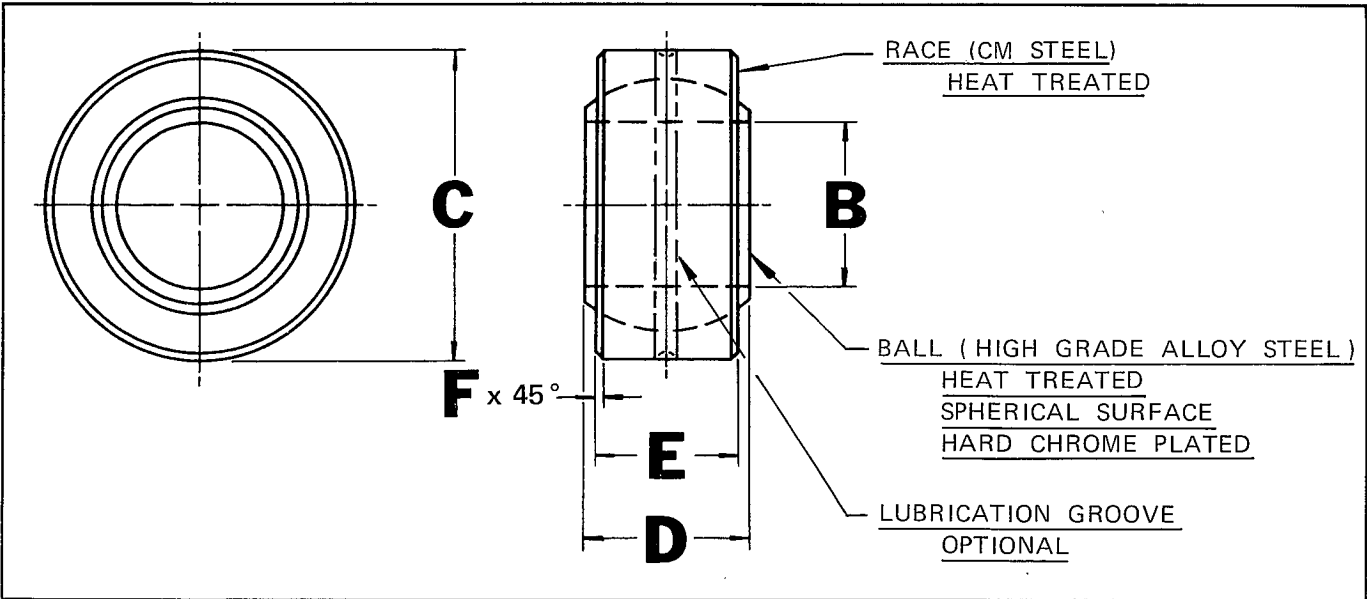
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLR-16004	1.0000	1.6250	.875	.750	.020	1.6250	75,000	1.437
BLR-20004	1.2500	2.0000	1.093	.937	.020	2.0000	116,000	1.781
BLR-24004	1.5000	2.4375	1.312	1.125	.030	2.4375	167,000	2.156
BLR-28004	1.7500	2.8125	1.531	1.312	.030	2.8125	236,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BLR-30004	1.8750	3.1250	1.625	1.343	.030	3.1250	265,000	2.812
BLR-32004	2.0000	3.1875	1.750	1.500	.030	3.1875	297,500	2.875
BLR-36004	2.2500	3.5625	1.969	1.678	.030	3.5625	376,000	3.156
BLR-40004	2.5000	3.9375	2.187	1.875	.030	3.9375	466,500	3.500
BLR-44004	2.7500	4.3750	2.406	2.062	.030	4.3750	545,500	3.875
BLR-48004	3.0000	4.7500	2.625	2.250	.030	4.7500	669,500	4.250
	+.0000 -.0008	+.0000 -.0010				+.0000 -.0010		
BLR-52004	3.2500	5.1250	2.844	2.437	.032	5.1250	787,500	4.675
BLR-56004	3.5000	5.5000	3.062	2.625	.032	5.5000	918,500	5.040
BLR-60004	3.7500	5.8750	3.281	2.812	.032	5.8750	1,050,000	5.390
BLR-64004	4.0000	6.2500	3.500	3.000	.032	6.2500	1,196,000	5.750
BLR-68004	4.2500	6.6250	3.719	3.187	.044	6.6250	1,353,000	6.125
BLR-72004	4.5000	7.0000	3.937	3.375	.044	7.0000	1,522,000	6.475
BLR-76004	4.7500	7.3750	4.156	3.562	.044	7.3750	1,680,000	6.825
BLR-80004	5.0000	7.7500	4.375	3.750	.044	7.7500	1,867,000	7.190
BLR-88004	5.5000	8.6250	4.938	4.125	.125	8.6250	2,890,000	8.045
BLR-96004	6.0000	9.5000	5.438	4.500	.125	9.5000	3,850,000	8.890

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BLR-48004-G.
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

"L-4" SERIES





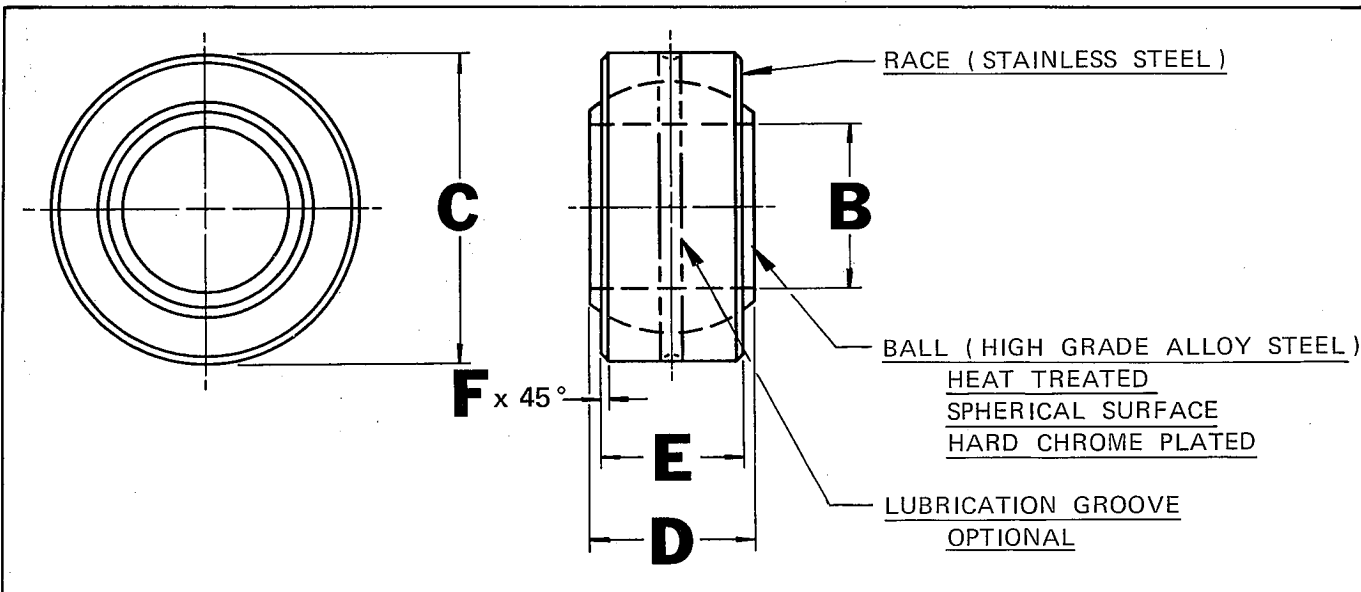
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BSR-16004	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
BSR-20004	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
BSR-24004	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
BSR-28004	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+.0000 -.0008				+.0000 +.0008		
BSR-30004	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
BSR-32004	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
BSR-36004	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
BSR-40004	2.5000	2.9375	2.187	1.875	.030	3.9375	622,300	3.500
BSR-44004	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
BSR-48004	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
		+.0000 -.0008				+.0000 -.0010		
BSR-52004	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
BSR-56004	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
BSR-60004	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
BSR-64004	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
BSR-68004	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
BSR-72004	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
BSR-76004	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
BSR-80004	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
BSR-88004	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
BSR-96004	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BSR-48004-G
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"S-4" SERIES



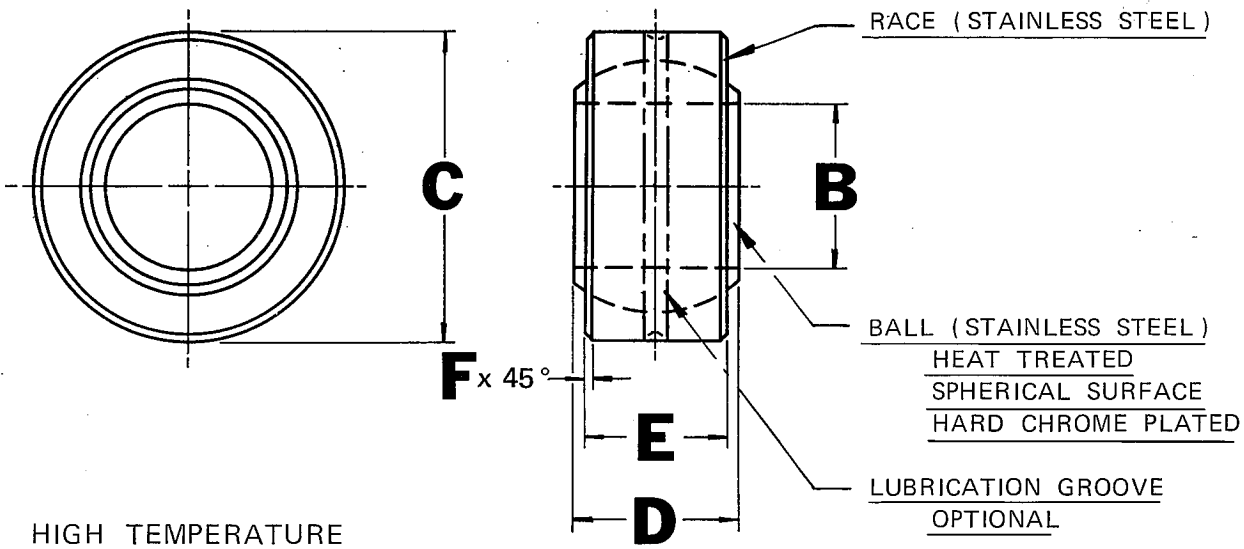
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BSSR-16004	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
BSSR-20004	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
BSSR-24004	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
BSSR-28004	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BSSR-30004	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
BSSR-32004	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
BSSR-36004	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
BSSR-40004	2.5000	3.9375	2.187	1.875	.030	3.9375	622,300	3.500
BSSR-44004	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
BSSR-48004	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
		+.0000 -.0008				+.0000 -.0010		
BSSR-52004	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
BSSR-56004	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
BSSR-60004	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
BSSR-64004	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
BSSR-68004	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
BSSR-72004	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
BSSR-76004	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
BSSR-80004	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
BSSR-88004	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
BSSR-96004	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BSSR-48004-G
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"SS-4" SERIES



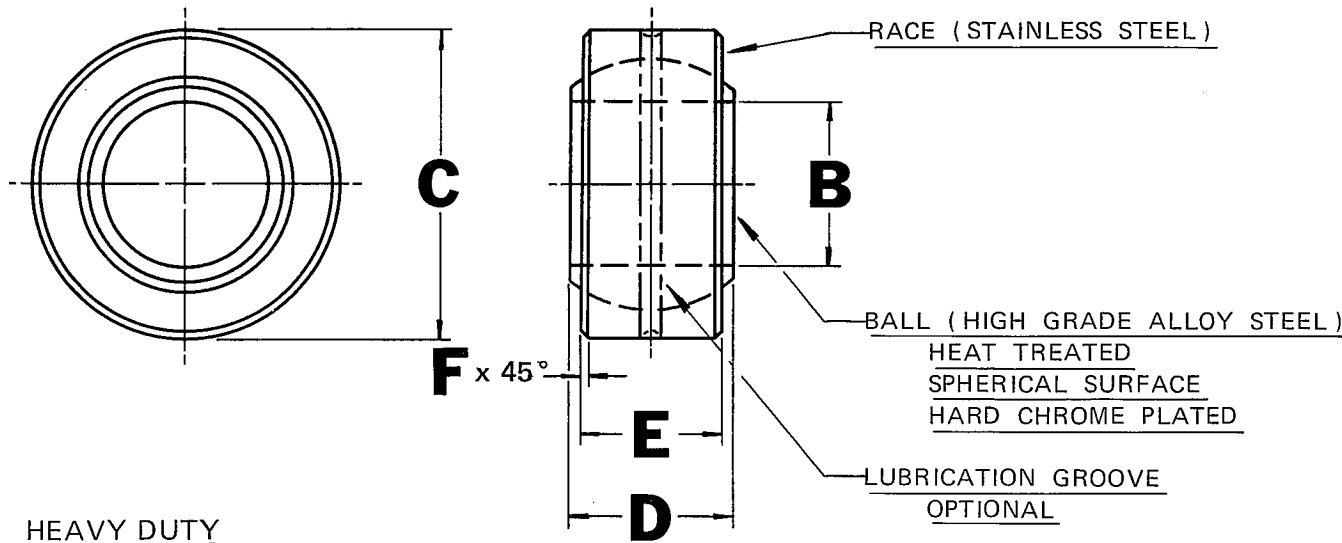
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BAR-16285	1.0000	1.6250	.875	.750	.020	1.6250	75,000	1.437
BAR-20155	1.2500	2.0000	1.093	.937	.020	2.0000	116,000	1.781
BAR-24085	1.5000	2.4375	1.312	1.125	.030	2.4375	167,000	2.156
BAR-28070	1.7500	2.8125	1.531	1.312	.030	2.8125	228,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BAR-30095	1.8750	3.1250	1.625	1.343	.030	3.1250	260,900	2.812
BAR-32055	2.0000	3.1875	1.750	1.500	.030	3.1875	298,000	2.875
BAR-36055	2.2500	3.5625	1.969	1.678	.030	3.5625	376,800	3.156
BAR-40070	2.5000	3.9375	2.187	1.875	.030	3.9375	488,700	3.500
BAR-44050	2.7500	4.3750	2.406	2.062	.030	4.3750	590,000	3.875
BAR-48060	3.0000	4.7500	2.625	2.250	.030	4.7500	669,700	4.250
		+.0000 -.0008				+.0000 -.0010		
BAR-52015	3.2500	5.1250	2.844	2.437	.032	5.1250	787,000	4.675
BAR-56015	3.5000	5.5000	3.062	2.625	.032	5.5000	918,600	5.040
BAR-60015	3.7500	5.8750	3.281	2.812	.032	5.8750	1,050,000	5.390
BAR-64015	4.0000	6.2500	3.500	3.000	.032	6.2500	1,196,250	5.750
BAR-68015	4.2500	6.6250	3.719	3.187	.044	6.6250	1,353,000	6.125
BAR-72015	4.5000	7.0000	3.937	3.375	.044	7.0000	1,522,500	6.475
BAR-76015	4.7500	7.3750	4.156	3.562	.044	7.3750	1,680,000	6.825
BAR-80015	5.0000	7.7500	4.375	3.750	.044	7.7500	1,866,600	7.190
BAR-88020	5.5000	8.6250	4.938	4.125	.125	8.6250	2,300,000	8.045
BAR-96020	6.0000	9.5000	5.438	4.500	.125	9.5000	2,770,000	8.890

NOTES:

- LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
- SHORT TIME LOADING 15 MINUTES MAXIMUM AT 1000° F.
- ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BAR-48060-G.
- SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

"HT-4" SERIES





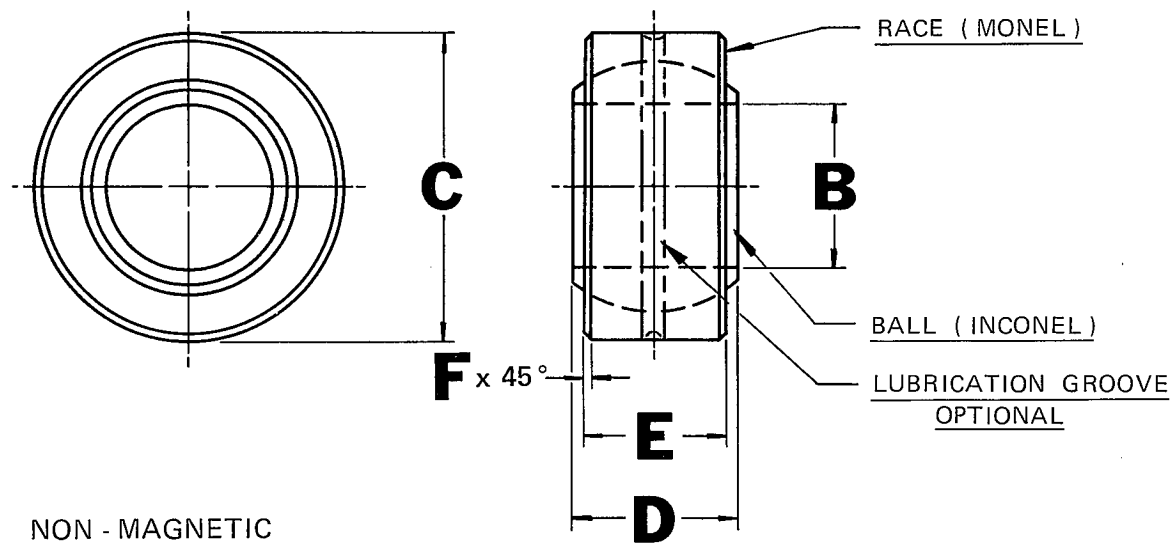
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BHDR-16004	1.0000	1.6250	.875	.750	.020	1.6250	131,000	1.437
BHDR-20004	1.2500	2.0000	1.093	.937	.020	2.0000	204,000	1.781
BHDR-24004	1.5000	2.4375	1.312	1.125	.030	2.4375	298,000	2.156
BHDR-28004	1.7500	2.8125	1.531	1.312	.030	2.8125	403,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BHDR-30004	1.8750	3.1250	1.625	1.343	.030	3.1250	468,000	2.812
BHDR-32004	2.0000	3.1875	1.750	1.500	.030	3.1875	528,000	2.875
BHDR-36004	2.2500	3.5625	1.969	1.678	.030	3.5625	647,000	3.156
BHDR-40004	2.5000	3.9375	2.187	1.875	.030	3.9375	802,000	3.500
BHDR-44004	2.7500	4.3750	2.406	2.062	.030	4.3750	977,000	3.875
BHDR-48004	3.0000	4.7500	2.625	2.250	.030	4.7500	1,165,000	4.250
		+.0000 -.0008				+.0000 -.0010		
BHDR-52004	3.2500	5.1250	2.844	2.437	.032	5.1250	1,395,000	4.675
BHDR-56004	3.5000	5.5000	3.062	2.625	.032	5.5000	1,620,000	5.040
BHDR-60004	3.7500	5.8750	3.281	2.812	.032	5.8750	1,855,000	5.390
BHDR-64004	4.0000	6.2500	3.500	3.000	.032	6.2500	2,110,000	5.750
BHDR-68004	4.2500	6.6250	3.719	3.187	.044	6.6250	2,390,000	6.125
BHDR-72004	4.5000	7.0000	3.937	3.375	.044	7.0000	2,670,000	6.475
BHDR-76004	4.7500	7.3750	4.156	3.562	.044	7.3750	2,980,000	6.825
BHDR-80004	5.0000	7.7500	4.375	3.750	.044	7.7500	3,300,000	7.190
BHDR-88004	5.5000	8.6250	4.938	4.125	.125	8.6250	4,060,000	8.045
BHDR-96004	6.0000	9.5000	5.438	4.500	.125	9.5000	4,880,000	8.890

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BHDR48004-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"HD-4" SERIES



NON - MAGNETIC

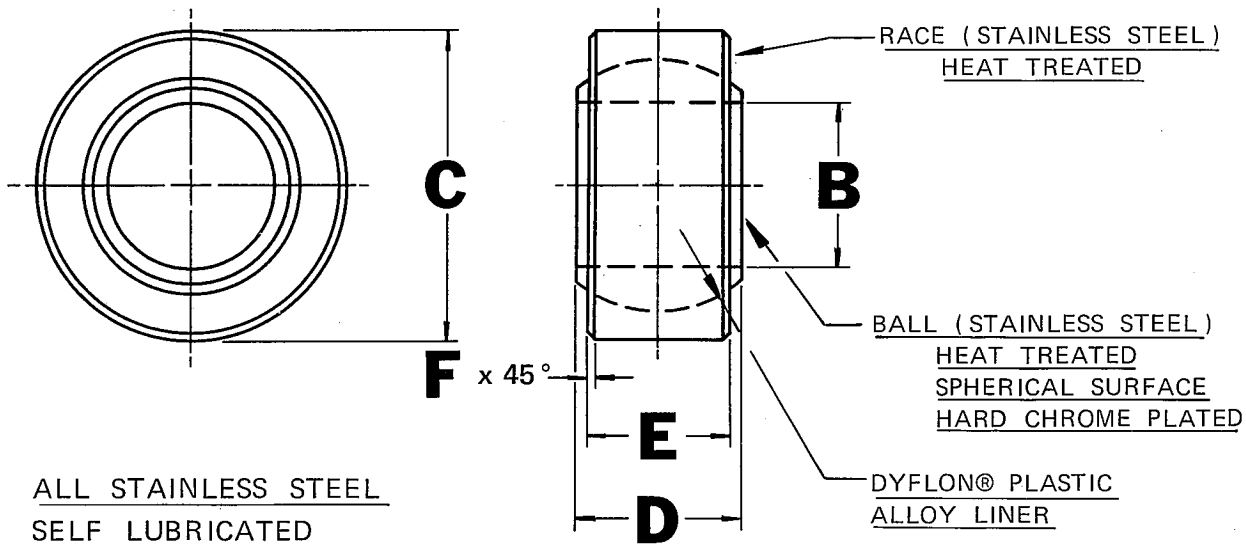
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
SWPBR-16-004	1.0000	1.6250	.875	.750	.020	1.6250	90,000	1.437
SWPBR-20-004	1.2500	2.0000	1.093	.937	.020	2.0000	139,000	1.781
SWPBR-24-004	1.5000	2.4375	1.312	1.125	.030	2.4375	202,000	2.156
SWPBR-28-004	1.7500	2.8125	1.531	1.312	.030	2.8125	275,000	2.515
		+.0000 -.0008				+.0000 -.0008		
SWPBR-30-004	1.8750	3.1250	1.625	1.343	.030	3.1250	315,000	2.812
SWPBR-32-004	2.0000	3.1875	1.750	1.500	.030	3.1875	360,000	2.875
SWPBR-36-004	2.2500	3.5625	1.969	1.678	.030	3.5625	442,000	3.156
SWPBR-40-004	2.5000	3.9375	2.187	1.875	.030	3.9375	548,000	3.500
SWPBR-44-004	2.7500	4.3750	2.406	2.062	.030	4.3750	667,000	3.875
SWPBR-48-004	3.0000	4.7500	2.625	2.250	.030	4.7500	800,000	4.250
		+.0000 -.0008				+.0000 -.0010		
SWPBR-52-004	3.2500	5.1250	2.844	2.437	.032	5.1250	952,000	4.675
SWPBR-56-004	3.5000	5.5000	3.062	2.625	.032	5.5000	1,100,000	5.040
SWPBR-60-004	3.7500	5.8750	3.281	2.812	.032	5.8750	1,267,000	5.390
SWPBR-64-004	4.0000	6.2500	3.500	3.000	.032	6.2500	1,440,000	5.750
SWPBR-68-004	4.2500	6.6250	3.719	3.187	.044	6.6250	1,630,000	6.125
SWPBR-72-004	4.5000	7.0000	3.937	3.375	.044	7.0000	1,820,000	6.475
SWPBR-76-004	4.7500	7.3750	4.156	3.562	.044	7.3750	2,000,000	6.825
SWPBR-80-004	5.0000	7.7500	4.375	3.750	.044	7.7500	2,250,000	7.190
SWPBR-88-004	5.5000	8.6250	4.938	4.125	.125	8.6250	2,750,000	8.045
SWPBR-96-004	6.0000	9.5000	5.438	4.500	.125	9.5000	3,340,000	8.890

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-SWPBR-48-004-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

**NON-MAGNETIC
"004" SERIES**





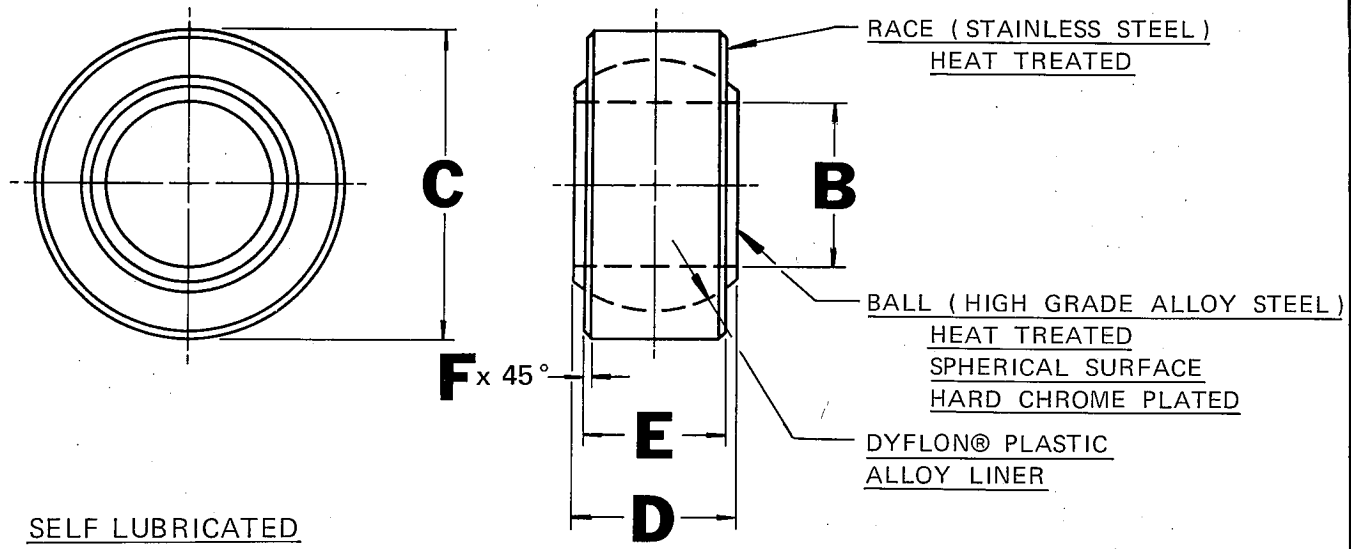
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR-16-060	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
BLFR-20-060	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
BLFR-24-060	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
BLFR-28-060	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BLFR-30-060	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
BLFR-32-060	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
BLFR-36-060	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
BLFR-40-060	2.5000	3.9375	2.187	1.875	.030	3.9375	622,300	3.500
BLFR-44-060	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
BLFR-48-060	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
		+.0000 -.0008				+.0000 -.0010		
BLFR-52-060	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
BLFR-56-060	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
BLFR-60-060	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
BLFR-64-060	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
BLFR-68-060	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
BLFR-72-060	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
BLFR-76-060	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
BLFR-80-060	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
BLFR-88-060	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
BLFR-96-060	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"LF-4" SERIES



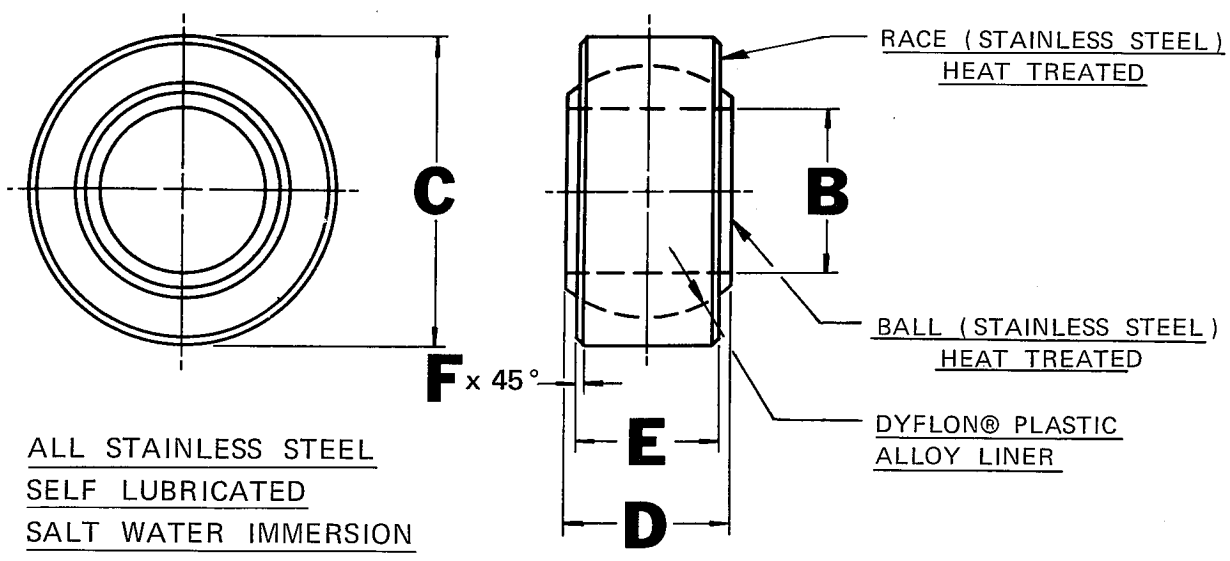
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +0.000 -0.005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +0.000 -0.005	OUTSIDE DIAMETER +0.000 -0.005	BALL WIDTH +0.000 -0.005	RACE WIDTH +0.010 -0.000	CHAMF. MIN.			
BLFR-16-470	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
BLFR-20-470	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
BLFR-24-470	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
BLFR-28-470	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+0.000 -0.008				+0.000 -0.008		
BLFR-30-470	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
BLFR-32-470	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
BLFR-36-470	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
BLFR-40-470	2.5000	3.9375	2.187	1.875	.030	3.9375	622,300	3.500
BLFR-44-470	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
BLFR-48-470	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
	+0.000 -0.008	+0.000 -0.010				+0.000 -0.010		
BLFR-52-470	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
BLFR-56-470	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
BLFR-60-470	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
BLFR-64-470	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
BLFR-68-470	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
BLFR-72-470	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
BLFR-76-470	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
BLFR-80-470	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
BLFR-88-470	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
BLFR-96-470	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

- NOTES:**
1. DYFLON® BEARINGS.
 2. LUBRICATION NOT REQUIRED.
 3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"LF-4" SERIES

U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. No. 640,638.



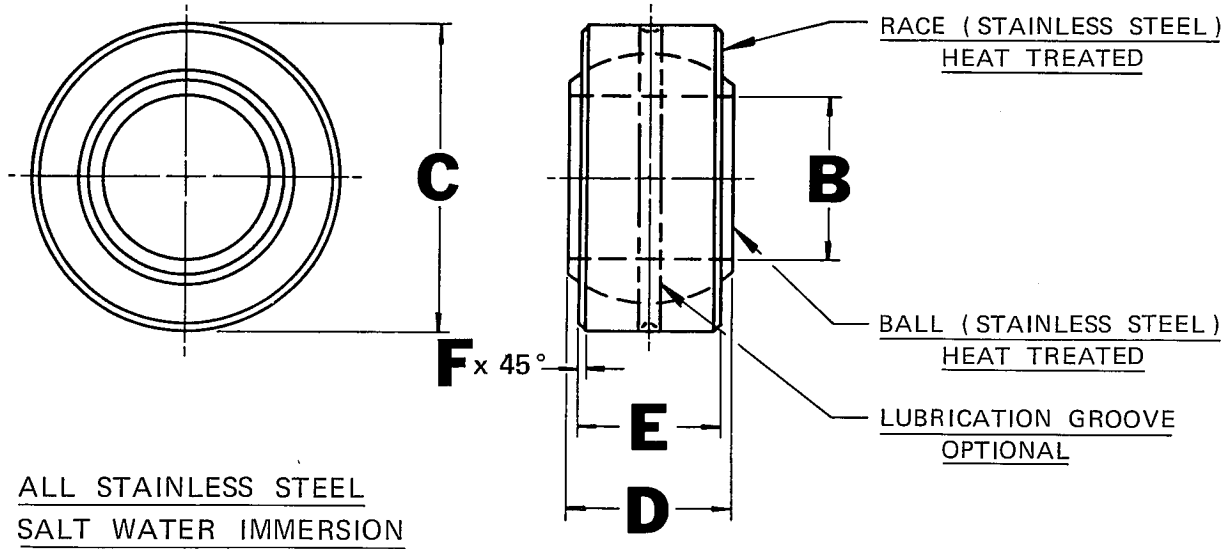
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR-16-460	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
BLFR-20-460	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
BLFR-24-460	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
BLFR-28-460	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BLFR-30-460	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
BLFR-32-460	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
BLFR-36-460	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
BLFR-40-460	2.5000	3.9375	2.187	1.875	.030	3.9375	622,300	3.500
BLFR-44-460	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
BLFR-48-460	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
		+.0000 -.0008				+.0000 -.0010		
BLFR-52-460	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
BLFR-56-460	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
BLFR-60-460	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
BLFR-64-460	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
BLFR-68-460	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
BLFR-72-460	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
BLFR-76-460	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
BLFR-80-460	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
BLFR-88-460	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
BLFR-96-460	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

- NOTES:**
1. DYFLON® BEARINGS.
 2. LUBRICATION NOT REQUIRED.
 3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

"LF-4" SERIES



U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. N° 640,638.



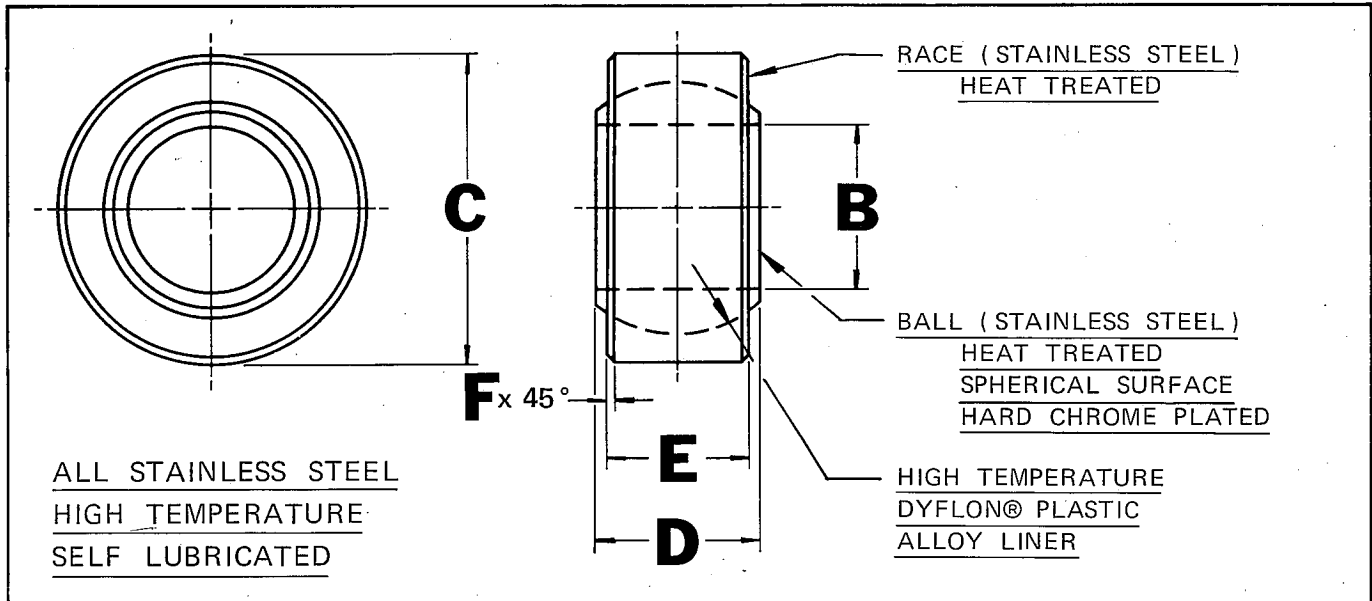
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
SWPBR-16-005	1.0000	1.6250	.875	.750	.020	1.6250	131,000	1.437
SWPBR-20-005	1.2500	2.0000	1.093	.937	.020	2.0000	204,000	1.781
SWPBR-24-005	1.5000	2.4375	1.312	1.125	.030	2.4375	298,000	2.156
SWPBR-28-005	1.7500	2.8125	1.531	1.312	.030	2.8125	403,000	2.515
		+.0000 -.0008				+.0000 -.0008		
SWPBR-30-005	1.8750	3.1250	1.625	1.343	.030	3.1250	468,000	2.812
SWPBR-32-005	2.0000	3.1875	1.750	1.500	.030	3.1875	528,000	2.875
SWPBR-36-005	2.2500	3.5625	1.969	1.678	.030	3.5625	647,000	3.156
SWPBR-40-005	2.5000	3.9375	2.187	1.875	.030	3.9375	802,000	3.500
SWPBR-44-005	2.7500	4.3750	2.406	2.062	.030	4.3750	977,000	3.875
SWPBR-48-005	3.0000	4.7500	2.625	2.250	.030	4.7500	1,165,000	4.250
	+.0000 -.0008	+.0000 -.0010				+.0000 -.0010		
SWPBR-52-005	3.2500	5.1250	2.844	2.437	.032	5.1250	1,395,000	4.675
SWPBR-56-005	3.5000	5.5000	3.062	2.625	.032	5.5000	1,620,000	5.040
SWPBR-60-005	3.7500	5.8750	3.281	2.812	.032	5.8750	1,855,000	5.390
SWPBR-64-005	4.0000	6.2500	3.500	3.000	.032	6.2500	2,110,000	5.750
SWPBR-68-005	4.2500	6.6250	3.719	3.187	.044	6.6250	2,390,000	6.125
SWPBR-72-005	4.5000	7.0000	3.937	3.375	.044	7.0000	2,670,000	6.475
SWPBR-76-005	4.7500	7.3750	4.156	3.562	.044	7.3750	2,980,000	6.825
SWPBR-80-005	5.0000	7.7500	4.375	3.750	.044	7.7500	3,300,000	7.190
SWPBR-88-005	5.5000	8.6250	4.938	4.125	.125	8.6250	4,060,000	8.045
SWPBR-96-005	6.0000	9.5000	5.438	4.500	.125	9.5000	4,880,000	8.890

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-SWPBR-48-005-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"SWI" SERIES



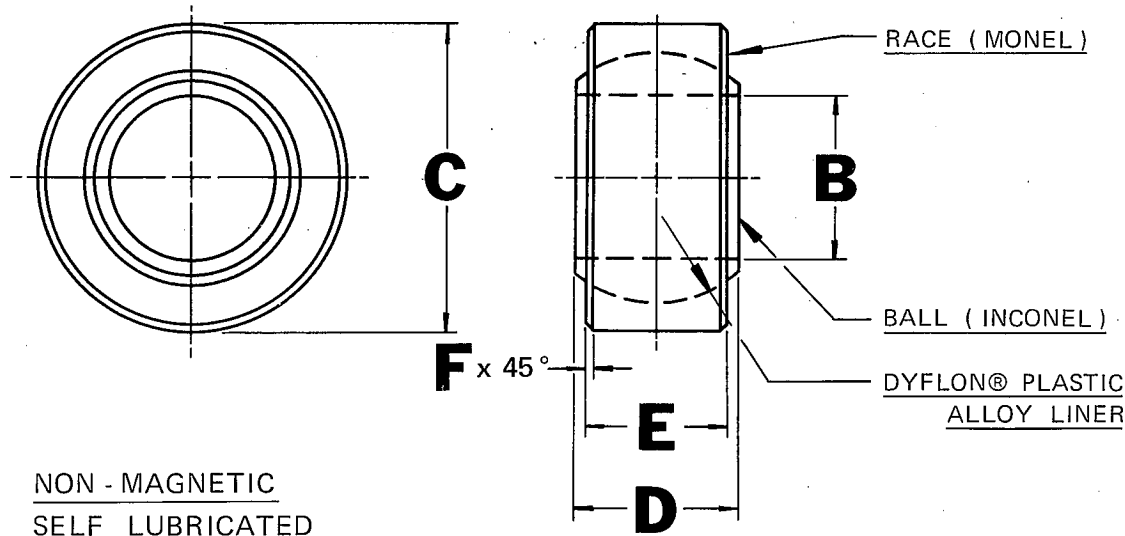
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR-16-465	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
BLFR-20-465	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
BLFR-24-465	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
BLFR-28-465	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BLFR-30-465	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
BLFR-32-465	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
BLFR-36-465	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
BLFR-40-465	2.5000	3.9375	2.187	1.875	.030	3.9375	622,300	3.500
BLFR-44-465	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
BLFR-48-465	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
	+.0000 -.0008	+.0000 -.0010				+.0000 -.0010		
BLFR-52-465	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
BLFR-56-465	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
BLFR-60-465	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
BLFR-64-465	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
BLFR-68-465	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
BLFR-72-465	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
BLFR-76-465	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
BLFR-80-465	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
BLFR-88-465	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
BLFR-96-465	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

NOTES:

1. HIGH TEMPERATURE DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

HIGH TEMPERATURE
LOW FRICTION
"LF-4" SERIES





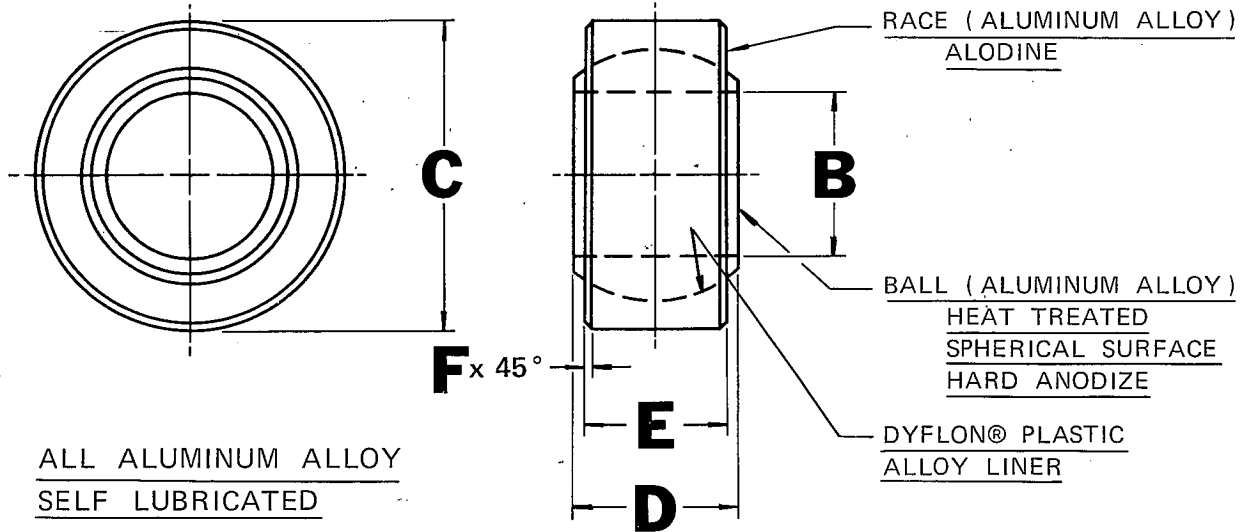
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
SWPBLFR-16-060	1.0000	1.6250	.875	.750	.020	1.6250	100,000	1.437
SWPBLFR-20-060	1.2500	2.0000	1.093	.937	.020	2.0000	155,000	1.781
SWPBLFR-24-060	1.5000	2.4375	1.312	1.125	.030	2.4375	223,000	2.156
SWPBLFR-28-060	1.7500	2.8125	1.531	1.312	.030	2.8125	305,000	2.515
		+.0000 -.0008				+.0000 -.0008		
SWPBLFR-30-060	1.8750	3.1250	1.625	1.343	.030	3.1250	348,000	2.812
SWPBLFR-32-060	2.0000	3.1875	1.750	1.500	.030	3.1875	397,000	2.875
SWBPLFR-36-060	2.2500	3.5625	1.969	1.678	.030	3.5625	502,500	3.156
SWPBLFR-40-060	2.5000	3.9375	2.187	1.875	.030	3.9375	622,300	3.500
SWPBLFR-44-060	2.7500	4.3750	2.406	2.062	.030	4.3750	754,000	3.875
SWPBLFR-48-060	3.0000	4.7500	2.625	2.250	.030	4.7500	893,000	4.250
		+.0000 -.0008				+.0000 -.0010		
SWPBLFR-52-060	3.2500	5.1250	2.844	2.437	.032	5.1250	1,050,000	4.675
SWPBLFR-56-060	3.5000	5.5000	3.062	2.625	.032	5.5000	1,225,000	5.040
SWPBLFR-60-060	3.7500	5.8750	3.281	2.812	.032	5.8750	1,400,000	5.390
SWPBLFR-64-060	4.0000	6.2500	3.500	3.000	.032	6.2500	1,595,000	5.750
SWPBLFR-68-060	4.2500	6.6250	3.719	3.187	.044	6.6250	1,805,000	6.125
SWPBLFR-72-060	4.5000	7.0000	3.937	3.375	.044	7.0000	2,030,000	6.475
SWPBLFR-76-060	4.7500	7.3750	4.156	3.562	.044	7.3750	2,240,000	6.825
SWPBLFR-80-060	5.0000	7.7500	4.375	3.750	.044	7.7500	2,490,000	7.190
SWPBLFR-88-060	5.5000	8.6250	4.938	4.125	.125	8.6250	3,850,000	8.045
SWPBLFR-96-060	6.0000	9.5000	5.438	4.500	.125	9.5000	4,644,000	8.890

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



"LF-4" SERIES



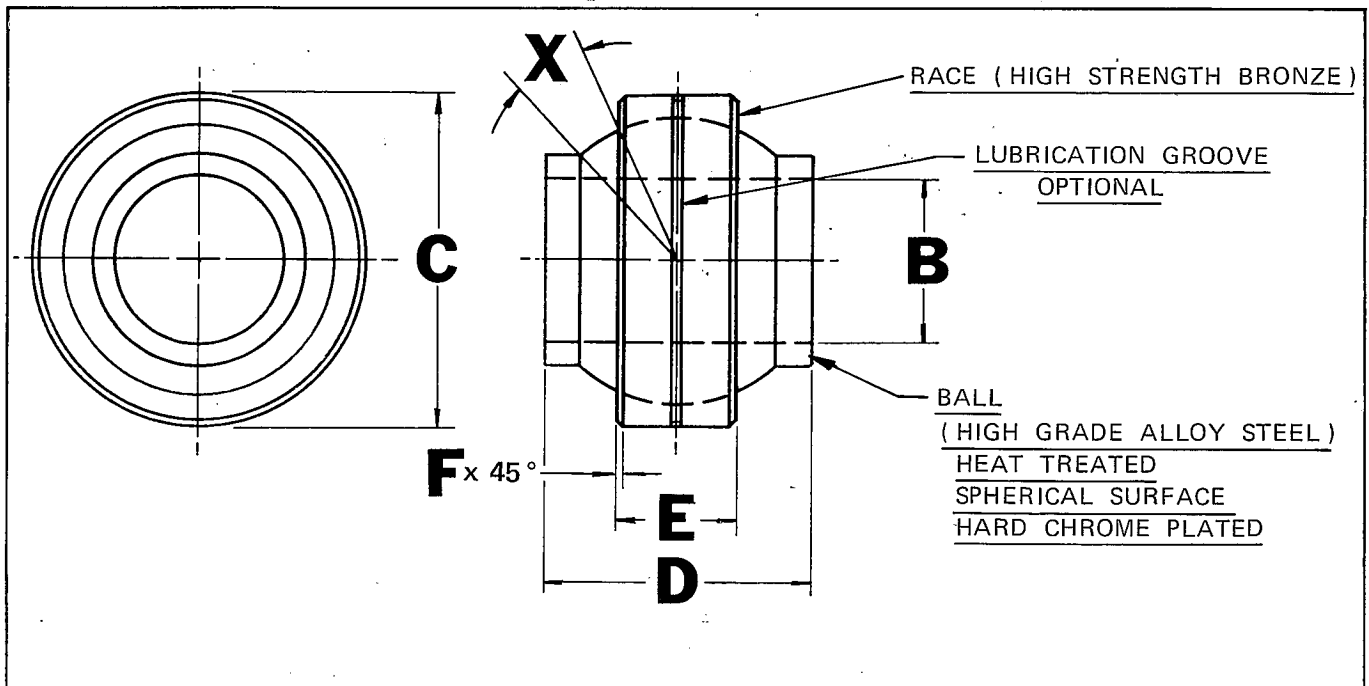
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			
BLFR-16-135	1.0000	1.6250	.875	.750	.020	1.6250	45,000	1.437
BLFR-20-135	1.2500	2.0000	1.093	.937	.020	2.0000	70,900	1.781
BLFR-24-135	1.5000	2.4375	1.312	1.125	.030	2.4375	103,000	2.156
BLFR-28-135	1.7500	2.8125	1.531	1.312	.030	2.8125	140,000	2.515
		+.0000 -.0008				+.0000 -.0008		
BLFR-30-135	1.8750	3.1250	1.625	1.343	.030	3.1250	160,000	2.812
BLFR-32-135	2.0000	3.1875	1.750	1.500	.030	3.1875	182,500	2.875
BLFR-36-135	2.2500	3.5625	1.969	1.678	.030	3.5625	225,000	3.156
BLFR-40-135	2.5000	3.9375	2.187	1.875	.030	3.9375	279,000	3.500
BLFR-44-135	2.7500	4.3750	2.406	2.062	.030	4.3750	339,000	3.875
BLFR-48-135	3.0000	4.7500	2.625	2.250	.030	4.7500	406,000	4.250
		+.0000 -.0008				+.0000 -.0010		
BLFR-52-135	3.2500	5.1250	2.844	2.437	.032	5.1250	484,000	4.675
BLFR-56-135	3.5000	5.5000	3.062	2.625	.032	5.5000	562,000	5.040
BLFR-60-135	3.7500	5.8750	3.281	2.812	.032	5.8750	644,000	5.390
BLFR-64-135	4.0000	6.2500	3.500	3.000	.032	6.2500	733,000	5.750
BLFR-68-135	4.2500	6.6250	3.719	3.187	.044	6.6250	829,000	6.125
BLFR-72-135	4.5000	7.0000	3.937	3.375	.044	7.0000	928,000	6.475
BLFR-76-135	4.7500	7.3750	4.156	3.562	.044	7.3750	1,033,000	6.825
BLFR-80-135	5.0000	7.7500	4.375	3.750	.044	7.7500	1,145,000	7.190
BLFR-88-135	5.5000	8.6250	4.938	4.125	.125	8.6250	1,410,000	8.045
BLFR-96-135	6.0000	9.5000	5.438	4.500	.125	9.5000	1,700,000	8.890

- NOTES:**
1. DYFLON® BEARINGS.
 2. LUBRICATION NOT REQUIRED.
 3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

**ALUMINUM ALLOY
LOW FRICTION "A-4" SERIES**



U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. No. 640,638.



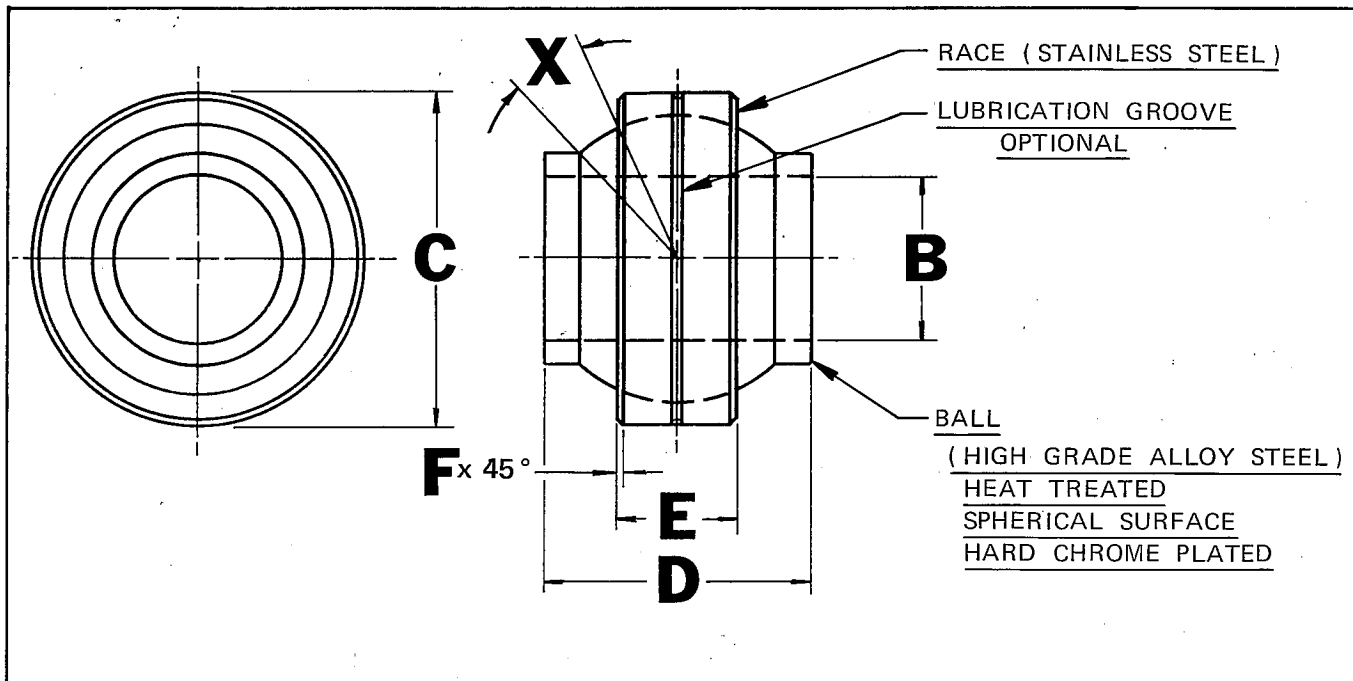
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			MIS- ALIGN- MENT ANGLE	
BLR-3180	.1900	.6250	.560	.322	.020	.6250	3,360	20°	.531
BLR-3675	.1900	.5625	.500	.205	.020	.5625	2,180	12°	.437
BLR-4425	.2500	.7400	.593	.250	.020	.7400	4,900	24°	.593
BLR-5105	.3125	.9060	.813	.340	.020	.9060	7,900	23°	.781
BLR-5180	.3125	.6875	.625	.240	.020	.6875	6,100	20°	.593
BLR-6445	.3750	.9060	.813	.340	.020	.9060	9,400	23°	.781
BLR-7295	.4375	1.0000	.875	.340	.020	1.0000	13,800	23°	.875
BLR-8420	.5000	1.1250	.937	.396	.020	1.1250	14,900	24°	1.000
BLR-9310	.5625	1.2500	1.000	.437	.020	1.2500	17,800	24°	1.125
BLR-10335	.6250	1.3750	1.200	.562	.020	1.3750	24,600	17° 30'	1.250
BLR-12290	.7500	1.5625	1.280	.615	.020	1.5625	35,000	18°	1.375
BLR-14155	.8750	1.7500	1.400	.620	.020	1.7500	44,800	18°	1.531
BLR-16240	1.0000	2.1250	1.875	.830	.020	2.1250	53,500	21°	1.875
BLR-20215	1.2500	2.5000	1.875	1.000	.020	2.5000	110,000	21°	2.250
BLR-24125	1.5000	3.0000	2.250	1.170	.030	3.0000	150,000	21°	2.672
BLR-26105	1.6250	3.1250	2.437	1.187	.030	3.1250	161,000	24°	2.812
BLR-28195	1.7500	3.5625	2.875	1.250	.030	3.5625	208,000	30°	3.250

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BLR-8420-G.
2. ADD "C" TO PART NUMBER IF RACE TO BE CADMIUM PLATED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



HIGH MISALIGNMENT "L" SERIES



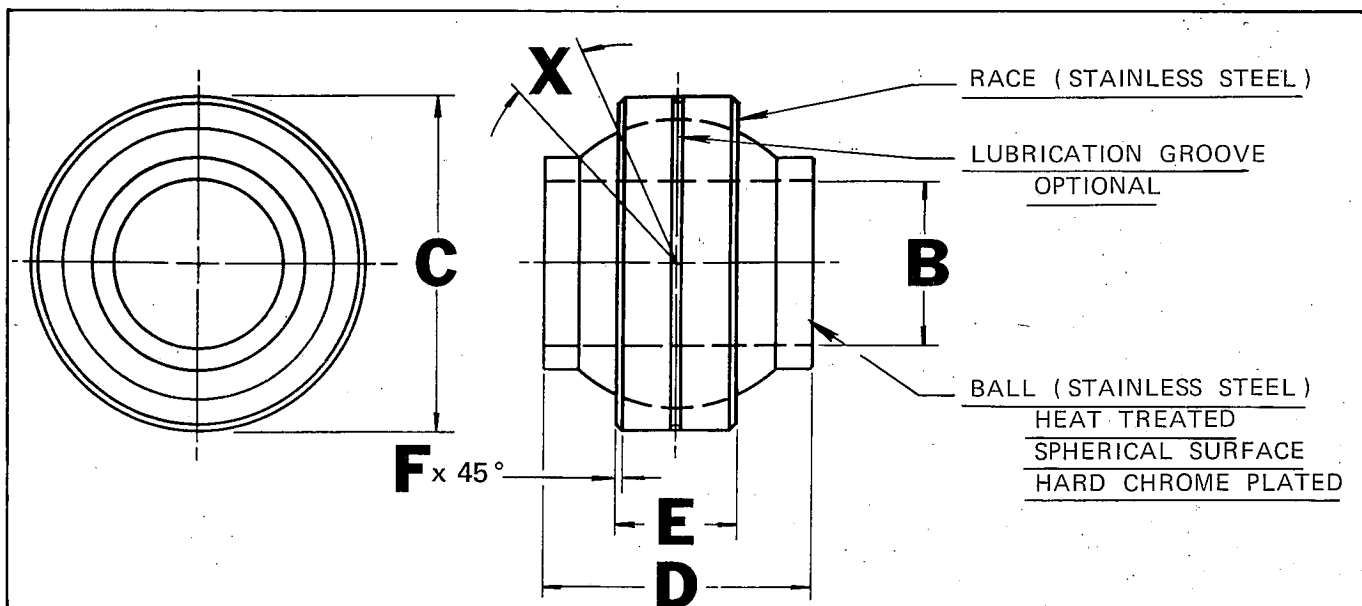
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			MIS-ALIGNMENT ANGLE	
BSSR-3180	.1900	.6250	.560	.322	.020	.6250	6,260	20°	.531
BSSR-3675	.1900	.5625	.500	.205	.020	.5625	4,230	12°	.437
BSSR-4425	.2500	.7400	.593	.250	.020	.7400	7,360	24°	.593
BSSR-5105	.3125	.9060	.813	.340	.020	.9060	11,500	23°	.781
BSSR-5180	.3125	.6875	.625	.240	.020	.6875	9,200	20°	.593
BSSR-6445	.3750	.9060	.813	.340	.020	.9060	17,500	23°	.781
BSSR-7295	.4375	1.0000	.875	.340	.020	1.0000	20,000	23°	.875
BSSR-8420	.5000	1.1250	.937	.396	.020	1.1250	27,400	24°	1.000
BSSR-9310	.5625	1.2500	1.000	.437	.020	1.2500	33,000	24°	1.125
BSSR-10335	.6250	1.3750	1.200	.562	.020	1.3750	46,000	17° 30'	1.250
BSSR-12290	.7500	1.5625	1.280	.615	.020	1.5625	66,300	18°	1.375
BSSR-14155	.8750	1.7500	1.400	.620	.020	1.7500	81,300	18°	1.531
BSSR-16240	1.0000	2.1250	1.875	.830	.020	2.1250	98,700	21°	1.875
BSSR-20215	1.2500	2.5000	1.875	1.000	.020	2.5000	141,500	21°	2.250
BSSR-24125	1.5000	3.0000	2.250	1.170	.030	3.0000	200,000	21°	2.672
BSSR-26105	1.6250	3.1250	2.437	1.187	.030	3.1250	208,000	24°	2.812
BSSR-28195	1.7500	3.5625	2.875	1.250	.030	3.5625	269,000	30°	3.250

NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE—BSSR-8420-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



HIGH MISALIGNMENT "SS" SERIES



HIGH TEMPERATURE

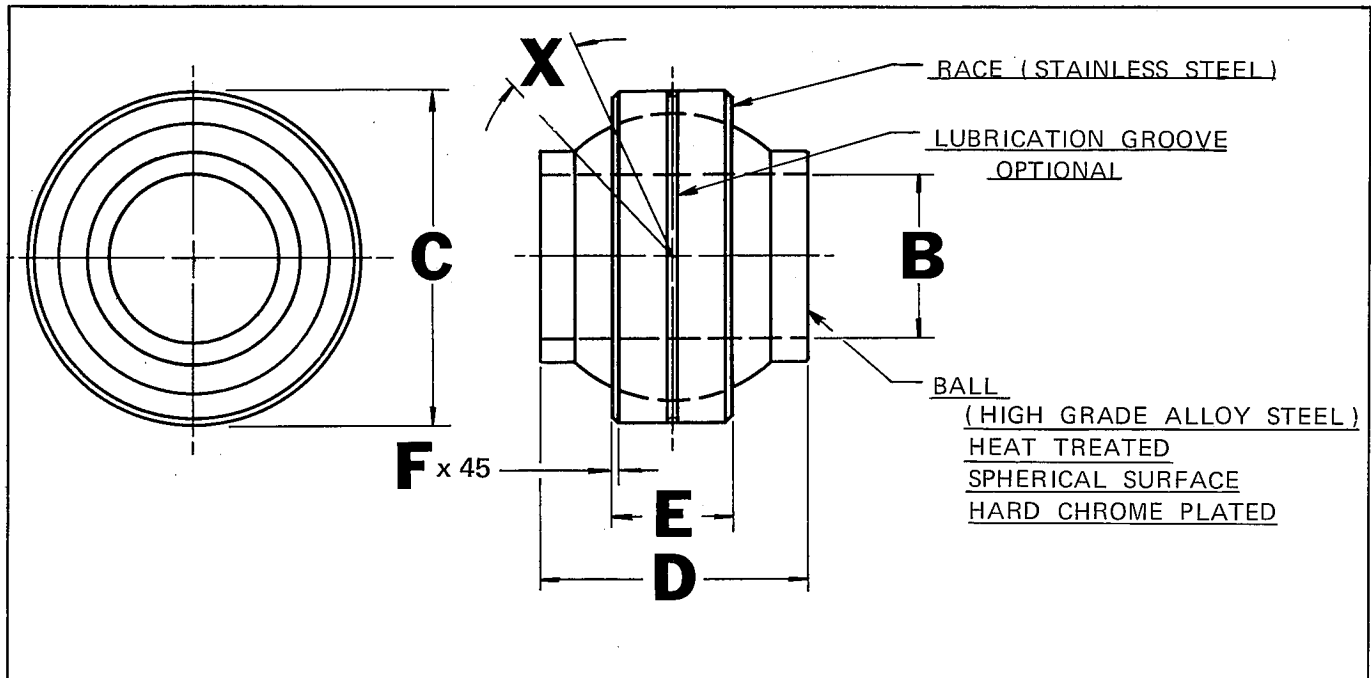
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			MIS-ALIGNMENT ANGLE	
BAR-3180	.1900	.6250	.560	.322	.020	.6250	4,300	20°	.531
BAR-3675	.1900	.5625	.500	.205	.020	.5625	2,900	12°	.437
BAR-4425	.2500	.7400	.593	.250	.020	.7400	5,100	24°	.593
BAR-5105	.3125	.9060	.813	.340	.020	.9060	9,600	23°	.781
BAR-5180	.3125	.6875	.625	.240	.020	.6875	7,800	20°	.593
BAR-6445	.3750	.9060	.813	.340	.020	.9060	12,600	23°	.781
BAR-7295	.4375	1.0000	.875	.340	.020	1.0000	14,100	23°	.875
BAR-8420	.5000	1.1250	.937	.396	.020	1.1250	21,600	24°	1.000
BAR-9310	.5625	1.2500	1.000	.437	.020	1.2500	28,000	24°	1.125
BAR-10335	.6250	1.3750	1.200	.562	.020	1.3750	38,500	17° 30'	1.250
BAR-12290	.7500	1.5625	1.280	.615	.020	1.5625	44,400	18°	1.375
BAR-14155	.8750	1.7500	1.400	.620	.020	1.7500	51,800	18°	1.531
BAR-16240	1.0000	2.1250	1.875	.830	.020	2.1250	85,000	21°	1.875
BAR-20215	1.2500	2.5000	1.875	1.000	.020	2.5000	123,000	21°	2.250
BAR-24125	1.5000	3.0000	2.250	1.170	.030	3.0000	170,000	21°	2.672
BAR-26105	1.6250	3.1250	2.437	1.187	.030	3.1250	181,000	24°	2.812
BAR-28195	1.7500	3.5625	2.875	1.250	.030	3.5625	233,000	30°	3.250

NOTES:

1. THESE BEARINGS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° F - 1000° F.
3. SHORT TIME LOADING 15 MINUTES MAXIMUM AT 1000° F.
4. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BAR-8420-G.
5. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



HIGH MISALIGNMENT "HT" SERIES



BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +0.0000 -0.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +0.0000 -0.0005	OUTSIDE DIAMETER +0.0000 -0.0005	BALL WIDTH +0.000 -0.005	RACE WIDTH +0.010 -0.000	CHAMF. MIN.			MIS-ALIGNMENT ANGLE	
BHDR-3180	.1900	.6250	.560	.322	.020	.6250	19,000	20°	.531
BHDR-3675	.1900	.5625	.500	.205	.020	.5625	9,900	12°	.437
BHDR-4425	.2500	.7400	.593	.250	.020	.7400	17,000	24°	.593
BHDR-5105	.3125	.9060	.813	.340	.020	.9060	30,000	23°	.781
BHDR-5180	.3125	.6875	.625	.240	.020	.6875	16,000	20°	.593
BHDR-6445	.3750	.9060	.813	.340	.020	.9060	30,000	23°	.781
BHDR-7295	.4375	1.0000	.875	.340	.020	1.0000	34,000	23°	.875
BHDR-8420	.5000	1.1250	.937	.396	.020	1.1250	45,000	24°	1.000
BHDR-9310	.5625	1.2500	1.000	.437	.020	1.250	56,000	24°	1.125
BHDR-10335	.6250	1.3750	1.200	.562	.020	1.3750	80,000	17° 30'	1.250
BHDR-12290	.7500	1.5625	1.280	.615	.020	1.5625	96,000	18°	1.375
BHDR-14155	.8750	1.7500	1.400	.620	.020	1.7500	110,000	18°	1.531
BHDR-16240	1.0000	2.1250	1.875	.830	.020	2.1250	185,000	21°	1.875
BHDR-20215	1.2500	2.5000	1.875	1.000	.020	2.5000	255,000	21°	2.250
BHDR-24125	1.5000	3.0000	2.250	1.170	.030	3.0000	355,000	21°	2.672
BHDR-26105	1.6250	3.1250	2.437	1.187	.030	3.1250	376,000	24°	2.812
BHDR-28195	1.7500	3.5625	2.875	1.250	.030	3.5625	485,000	30°	3.250

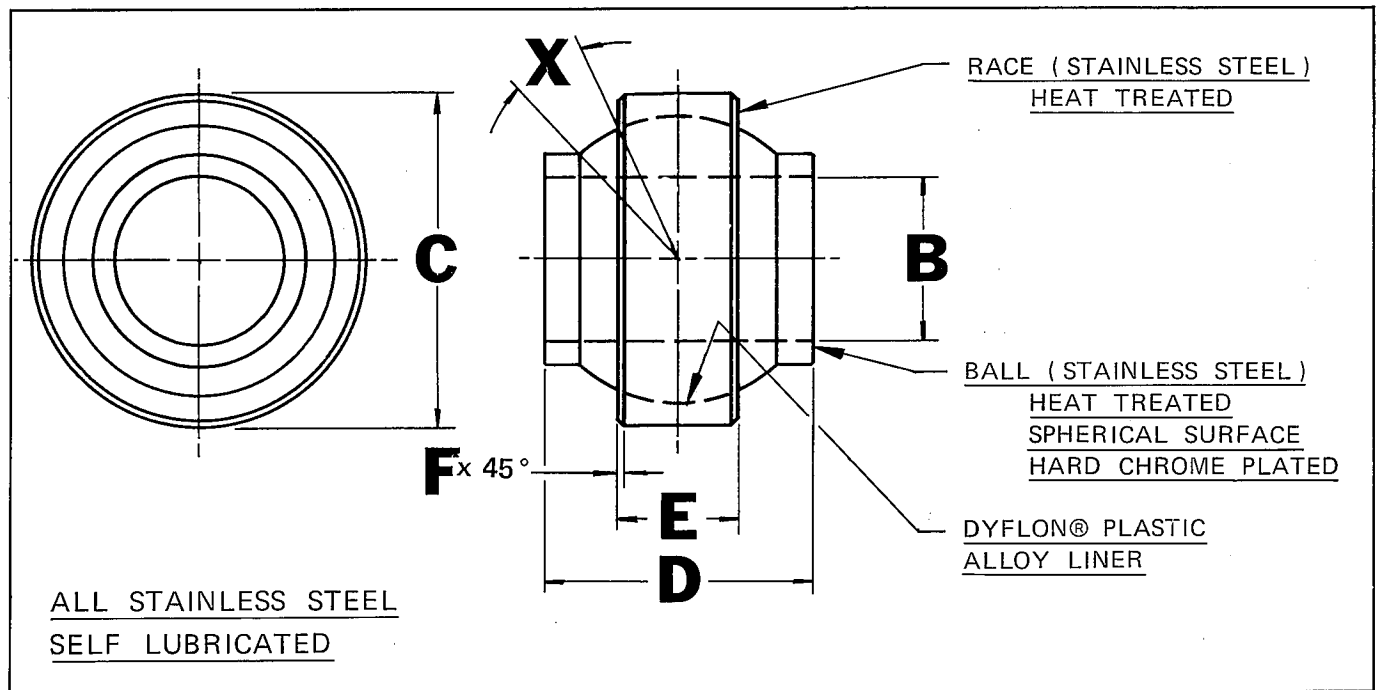
NOTES:

1. ADD "G" TO PART NUMBER IF LUBRICATION GROOVE REQUIRED.
EXAMPLE-BHDR-8420-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



HIGH MISALIGNMENT "HD" SERIES"

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



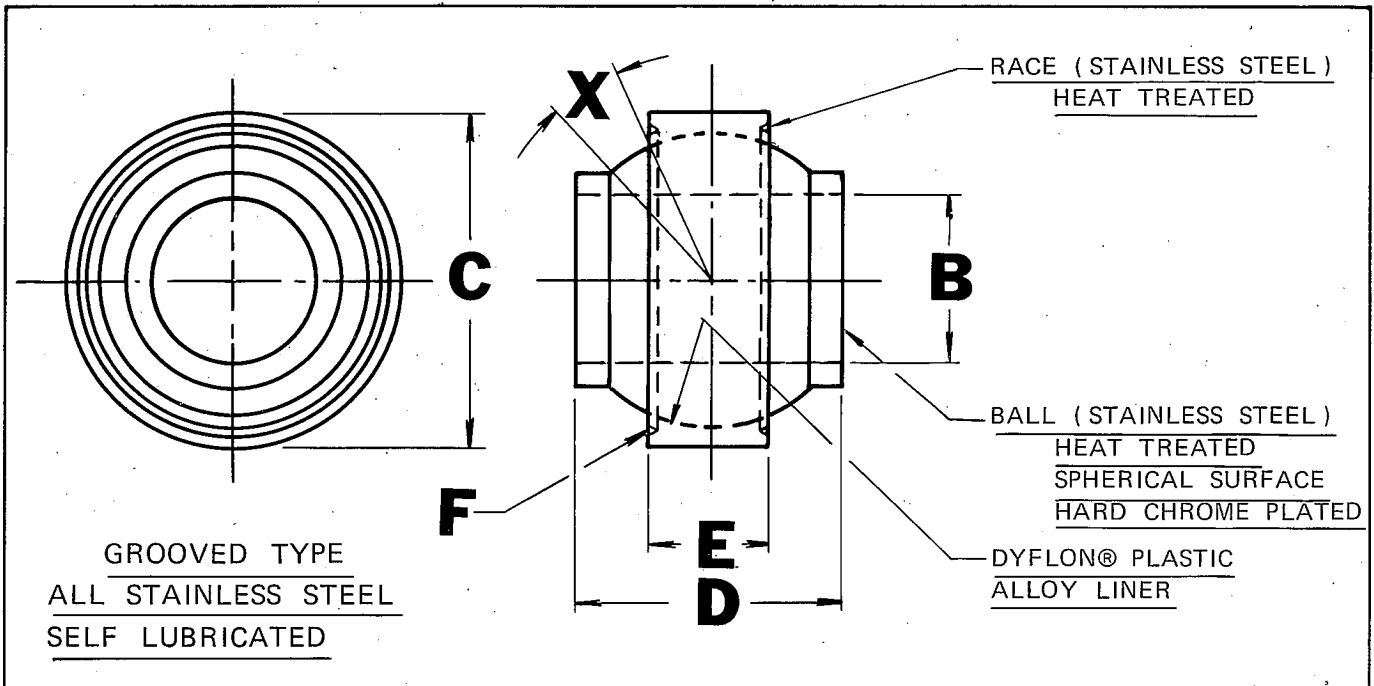
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			MIS- ALIGN- MENT ANGLE	
BLFR- 3-045	.1900	.6250	.560	.322	.020	.6250	6,260	20°	.531
BLFR- 4-045	.2500	.7400	.593	.250	.020	.7400	7,360	24°	.593
BLFR- 5-045	.3125	.9060	.813	.340	.020	.9060	11,500	23°	.781
BLFR- 6-045	.3750	.9060	.813	.340	.020	.9060	17,500	23°	.781
BLFR- 7-045	.4375	1.0000	.875	.340	.020	1.0000	20,000	23°	.875
BLFR- 8-045	.5000	1.1250	.937	.396	.020	1.1250	27,400	24°	1.000
BLFR- 9-045	.5625	1.2500	1.000	.437	.020	1.2500	33,000	24°	1.125
BLFR-10-045	.6250	1.3750	1.200	.562	.020	1.3750	46,000	17° 30'	1.250
BLFR-12-045	.7500	1.5625	1.280	.615	.020	1.5625	66,300	18°	1.375
BLFR-14-045	.8750	1.7500	1.400	.620	.020	1.7500	81,300	18°	1.531
BLFR-16-045	1.0000	2.1250	1.875	.830	.020	2.1250	98,700	21°	1.875
BLFR-20-045	1.2500	2.5000	1.875	1.000	.020	2.5000	141,500	21°	2.250
BLFR-24-045	1.5000	3.0000	2.250	1.170	.030	3.0000	200,000	21°	2.672
BLFR-26-045	1.6250	3.1250	2.437	1.187	.030	3.1250	213,000	24°	2.812
BLFR-28-045	1.7500	3.5625	2.875	1.250	.030	3.5625	259,000	30°	3.250

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

**HIGH MISALIGNMENT
LOW FRICTION "LF" SERIES**





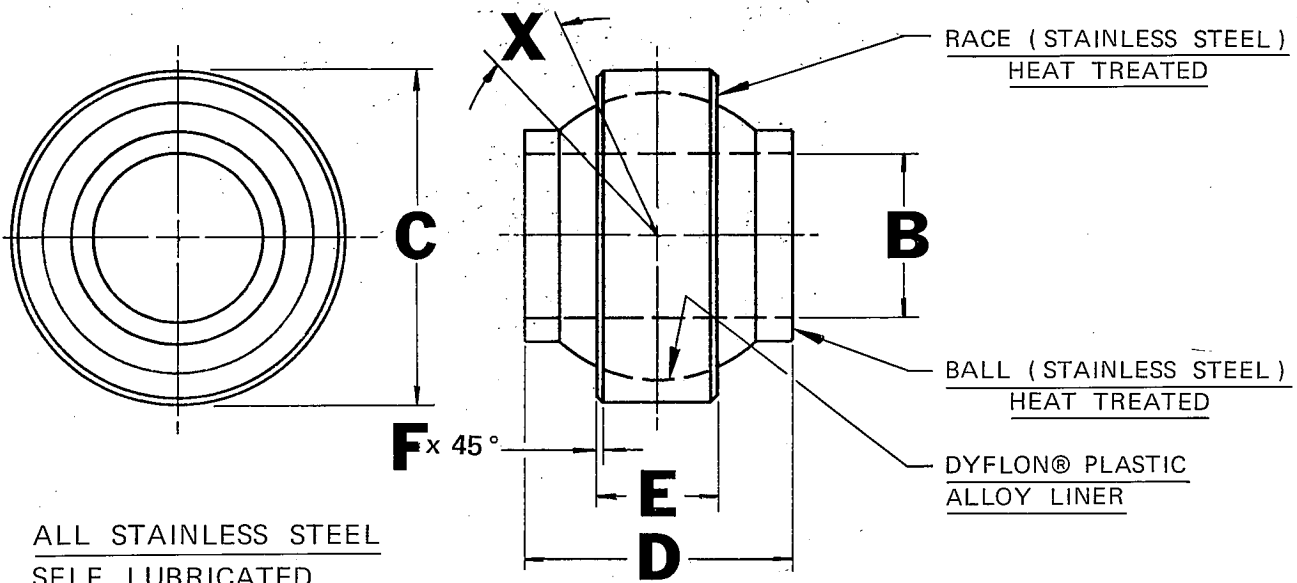
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	GROOVE TYPE			MIS-ALIGNMENT ANGLE	
BLFR- 4-245	.2500	.7400	.593	.250	I	.7400	7,360	24°	.593
BLFR- 5-245	.3125	.9060	.813	.340	I	.9060	11,500	23°	.781
BLFR- 6-245	.3750	.9060	.813	.340	II	.9060	17,500	23°	.781
BLFR- 7-245	.4375	1.0000	.875	.340	II	1.0000	20,000	23°	.875
BLFR- 8-245	.5000	1.1250	.937	.396	II	1.1250	27,400	24°	1.000
BLFR- 9-245	.5625	1.2500	1.000	.437	II	1.2500	33,000	24°	1.125
BLFR-10-245	.6250	1.3750	1.200	.562	II	1.3750	46,000	17° 30'	1.250
BLFR-12-245	.7500	1.5625	1.280	.615	III	1.5625	66,300	18°	1.375
BLFR-14-245	.8750	1.7500	1.400	.620	III	1.7500	81,300	18°	1.531
BLFR-16-245	1.0000	2.1250	1.875	.830	III	2.1250	98,700	21°	1.875
BLFR-20-245	1.2500	2.5000	1.875	1.000	III	2.5000	141,500	21°	2.250
BLFR-24-245	1.5000	3.0000	2.250	1.170	III	3.0000	200,000	21°	2.672
BLFR-26-245	1.6250	3.1250	2.437	1.187	III	3.1250	213,000	24°	2.812
BLFR-28-245	1.7500	3.5625	2.875	1.250	III	3.5625	259,000	30°	3.250

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGE "D" FOR GROOVE TYPE.

HIGH MISALIGNMENT
LOW FRICTION "LF" SERIES





ALL STAINLESS STEEL
SELF LUBRICATED
SALT WATER IMMERSION

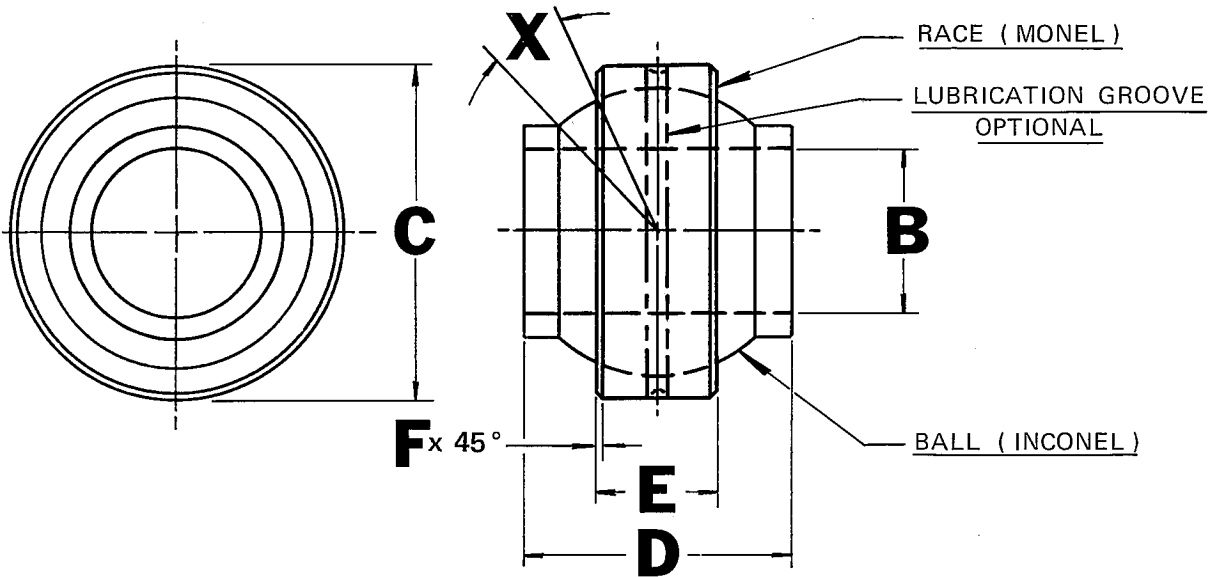
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			MIS- ALIGN- MENT ANGLE	
BLFR- 3-435	.1900	.6250	.560	.322	.020	.6250	6,260	20°	.531
BLFR- 4-435	.2500	.7400	.593	.250	.020	.7400	7,360	24°	.593
BLFR- 5-435	.3125	.9060	.813	.340	.020	.9060	11,500	23°	.781
BLFR- 6-435	.3750	.9060	.813	.340	.020	.9060	17,500	23°	.781
BLFR- 7-435	.4375	1.0000	.875	.340	.020	1.0000	20,000	23°	.875
BLFR- 8-435	.5000	1.1250	.937	.396	.020	1.1250	27,400	24°	1.000
BLFR- 9-435	.5625	1.2500	1.000	.437	.020	1.2500	31,000	24°	1.125
BLFR-10-435	.6250	1.3750	1.200	.562	.020	1.3750	46,000	17° 30'	1.250
BLFR-12-435	.7500	1.5625	1.280	.615	.020	1.5625	66,300	18°	1.375
BLFR-14-435	.8750	1.7500	1.400	.620	.020	1.7500	81,300	18°	1.531
BLFR-16-435	1.0000	2.1250	1.875	.830	.020	2.1250	98,700	21°	1.875
BLFR-20-435	1.2500	2.5000	1.875	1.000	.020	2.5000	141,500	21°	2.250
BLFR-24-435	1.5000	3.0000	2.250	1.170	.030	3.0000	200,000	21°	2.672
BLFR-26-435	1.6250	3.1250	2.437	1.187	.030	3.1250	213,000	24°	2.812
BLFR-28-435	1.7500	3.5625	2.875	1.250	.030	3.5625	259,000	30°	3.250

NOTES:

1. DYFLON® BEARINGS
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

**HIGH MISALIGNMENT
LOW FRICTION "LF" SERIES**





NON - MAGNETIC

BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS +.0000 -.0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.010 -.000	CHAMF. MIN.			MIS-ALIGNMENT ANGLE	
SWPBR-3-180	.1900	.6250	.560	.322	.020	.6250	4,300	20°	.531
SWPBR-3-675	.1900	.5625	.500	.205	.020	.5625	2,900	12°	.437
SWPBR-4-425	.2500	.7400	.593	.250	.020	.7400	5,100	24°	.593
SWPBR-5-105	.3125	.9060	.813	.340	.020	.9060	9,600	23°	.781
SWPBR-5-180	.3125	.6875	.625	.240	.020	.6875	7,800	20°	.593
SWPBR-6-445	.3750	.9060	.813	.340	.020	.9060	12,600	23°	.781
SWPBR-7-295	.4375	1.0000	.875	.340	.020	1.0000	14,100	23°	.875
SWPBR-8-420	.5000	1.1250	.937	.396	.020	1.1250	21,600	24°	1.000
SWPBR-9-310	.5625	1.2500	1.000	.437	.020	1.2500	33,000	24°	1.125
SWPBR-10-335	.6250	1.3750	1.200	.562	.020	1.3750	38,500	17° 30'	1.250
SWPBR-12-290	.7500	1.5625	1.280	.615	.020	1.5625	44,400	18°	1.375
SWPBR-14-155	.8750	1.7500	1.400	.620	.020	1.7500	51,800	18°	1.531
SWPBR-16-240	1.0000	2.1250	1.875	.830	.020	2.1250	85,000	21°	1.875
SWPBR-20-215	1.2500	2.5000	1.875	1.000	.020	2.5000	123,000	21°	2.250
SWPBR-24-125	1.5000	3.0000	2.250	1.170	.030	3.0000	170,000	21°	2.672
SWPBR-26-105	1.6250	3.1250	2.437	1.187	.030	3.1250	181,000	24°	2.812
SWPBR-28-195	1.7500	3.5625	2.875	1.250	.030	3.5625	233,000	30°	3.250

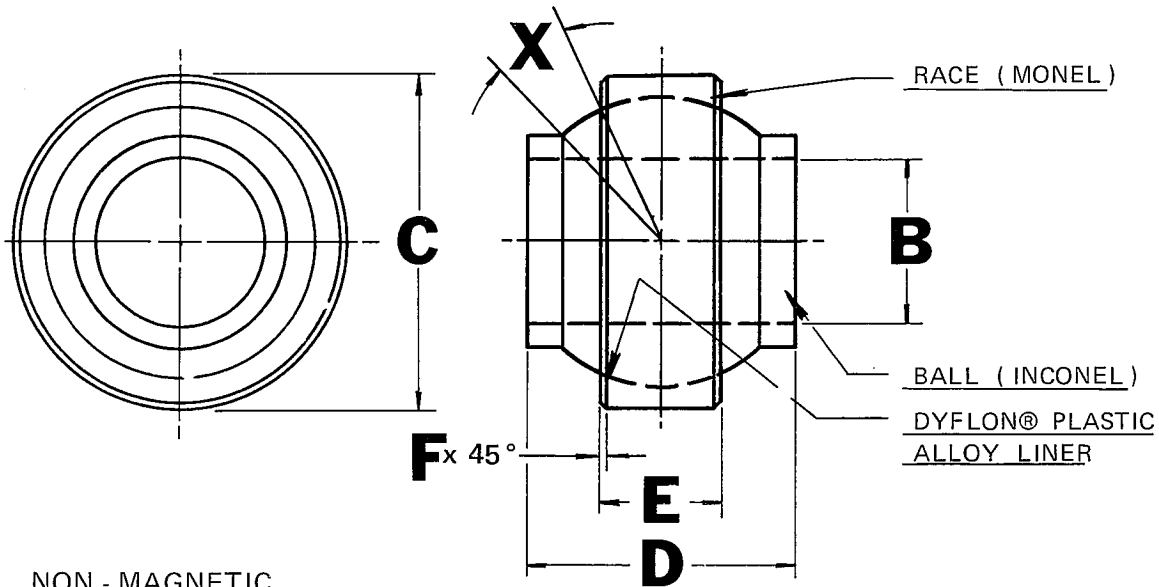
NOTES:

1. ADD "G" TO PART NO. IF LUBRICATION GROOVE REQUIRED. EXAMPLE—SWPBR-8-420-G.
2. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.



NON-MAGNETIC SERIES

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



NON - MAGNETIC
SELF LUBRICATED

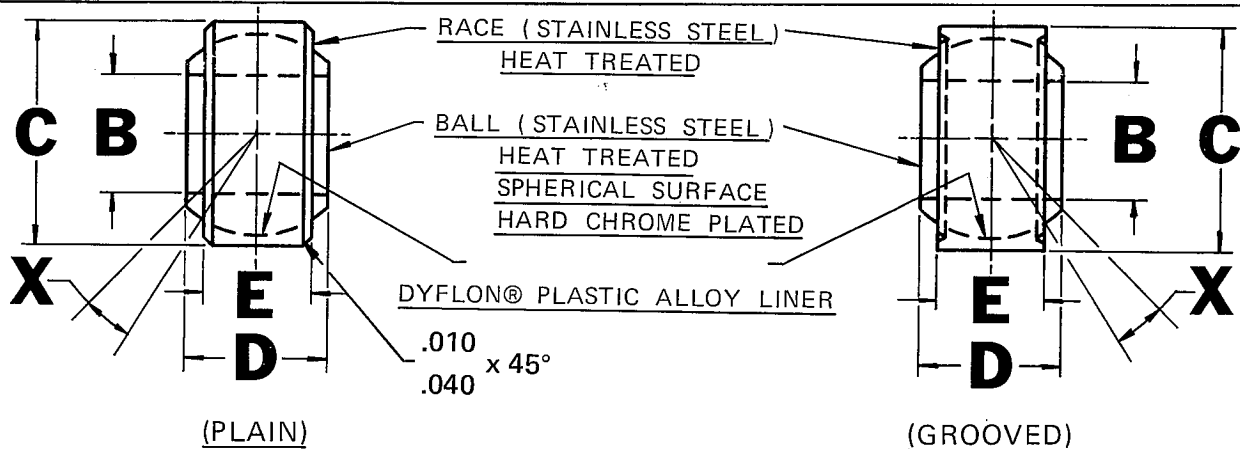
BEARING PART NUMBER	B	C	D	E	F	HOUSING BORE FITS + .0000 - .0005	ULTIMATE STATIC RADIAL LOAD IN LBS.	X	BALL DIA. (REF.)
	BORE + .0000 - .0005	OUTSIDE DIAMETER + .0000 - .0005	BALL WIDTH + .000 - .005	RACE WIDTH + .010 - .000	CHAMF. MIN.			MIS- ALIGN- MENT ANGLE	
SWPBLFR-3-045	.1900	.6250	.560	.322	.020	.6250	6,260	20°	.531
SWPBLFR-4-045	.2500	.7400	.593	.250	.020	.7400	7,360	24°	.593
SWPBLFR-5-045	.3125	.9060	.813	.340	.020	.9060	11,500	23°	.781
SWPBLFR-6-045	.3750	.9060	.813	.340	.020	.9060	17,500	23°	.781
SWPBLFR-7-045	.4375	1.0000	.875	.340	.020	1.0000	20,000	23°	.875
SWPBLFR-8-045	.5000	1.1250	.937	.396	.020	1.1250	27,400	24°	1.000
SWPBLFR-9-045	.5625	1.2500	1.000	.437	.020	1.2500	33,000	24°	1.125
SWPBLFR-10-045	.6250	1.3750	1.200	.562	.020	1.3750	46,000	17° 30'	1.250
SWPBLFR-12-045	.7500	1.5625	1.280	.615	.020	1.5625	66,300	18°	1.375
SWPBLFR-14-045	.8750	1.7500	1.400	.620	.020	1.7500	81,300	18°	1.531
SWPBLFR-16-045	1.0000	2.1250	1.875	.830	.020	2.1250	98,700	21°	1.875
SWPBLFR-20-045	1.2500	2.5000	1.875	1.000	.020	2.5000	141,500	21°	2.250
SWPBLFR-24-045	1.5000	3.0000	2.250	1.170	.030	3.0000	200,000	21°	2.672
SWPBLFR-26-045	1.6250	3.1250	2.437	1.187	.030	3.1250	213,000	24°	2.812
SWPBLFR-28-045	1.7500	3.5625	2.875	1.250	.030	3.5625	259,000	30°	3.250

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. SEE PAGES C, D, AND E FOR STAKING GROOVE AND PART NUMBER CONFIGURATIONS.

NON-MAGNETIC
LOW FRICTION "LF" SERIES





ALL STAINLESS STEEL
SELF LUBRICATED

BEARING PART NUMBER	GROOVE TYPE	B	C	D	E	BALL DIA. (REF)	X	STATIC LIMIT LOAD LBS.		DYNAMIC LOAD LBS.	NO LOAD BREAK-AWAY TORQUE INCH LBS.	WEIGHT LBS.
		BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.002	RACE WIDTH +.005 -.005			RADIAL	AXIAL			
BLFR- 3-316-1	-											
BLFR- 3-317-1	I	.1900	.6250	.437	.327	.531	15°	9,000	1,770	3,770	.5-5	.03
BLFR- 4-316-1	-											
BLFR- 4-317-1	I	.2500	.6250	.437	.327	.531	15°	9,000	1,770	3,770	.5-5	.02
BLFR- 5-316-1	-											
BLFR- 5-317-1	I	.3125	.6875	.437	.317	.593	14°	9,400	1,640	4,650	1-5	.03
BLFR- 6-316-1	-											
BLFR- 6-317-1	II	.3750	.8125	.500	.406	.687	8°	13,700	2,630	6,390	1-5	.05
BLFR- 7-316-1	-											
BLFR- 7-317-1	II	.4375	.9375	.562	.442	.781	10°	20,700	3,650	9,390	1-5	.07
BLFR-7A-317-1	II	.4375	.9062	.562	.442	.781	10°	20,700	3,650	9,390	1-5	.07
BLFR- 8-316-1	-											
BLFR- 8-317-1	II	.5000	1.0000	.625	.505	.875	9°	27,500	4,970	12,150	1-5	.09
BLFR- 9-316-1	-											
BLFR- 9-317-1	II	.5625	1.1250	.687	.536	1.000	10°	34,400	5,370	14,900	1-5	.12
BLFR-10-316-1	-											
BLFR-10-317-1	II	.6250	1.1875	.750	.567	1.062	12°	39,000	6,130	16,700	1-5	.14
BLFR-12-316-1	-											
BLFR-12-317-1	III	.7500	1.3750	.875	.630	1.218	13°	52,300	7,730	22,100	1-5	.20
BLFR-14-316-1	-											
BLFR-14-317-1	III	.8750	1.6250	.875	.755	1.375	6°	67,300	10,800	28,200	2-8	.32
BLFR-16-316-1	-											
BLFR-16-317-1	III	1.0000	2.1250	1.375	1.005	1.875	12°	137,000	19,300	53,700	2-8	.85

NOTES:

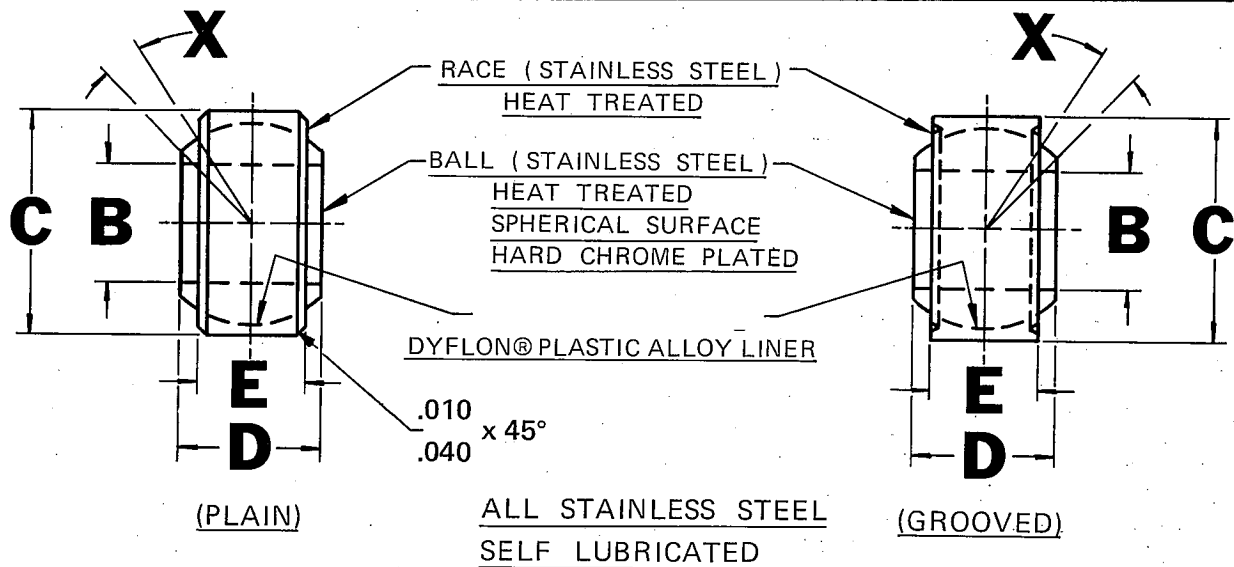
LUBRICATION NOT REQUIRED.
-316-1 IS EQUIVALENT TO MS 21231.
-317-1 IS EQUIVALENT TO MS 21230.

SEE PAGE (D) FOR STAKING GROOVE DIMENSIONS.

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8942

LOW FRICTION "MS" SERIES; WIDE: -316-1 (PLAIN)
-317-1 (GROOVED)





BEARING PART NUMBER	GROOVE TYPE	B	C	D	E	BALL DIA. (REF)	X	STATIC LIMIT LOAD LBS.		DYNAMIC LOAD LBS.	NO LOAD BREAK-AWAY TORQUE INCH LBS.	WEIGHT LBS.
		BORE +.0000 -.0005	OUTSIDE DIAMETER +.0000 -.0005	BALL WIDTH +.000 -.002	RACE WIDTH +.010 -.000			RADIAL	AXIAL			
BLFN- 3-318-1	—	.1900	.5625	.281	.213	.437	10°	3,975	150	1,500	.5-5	.01
BLFN- 4-318-1	—											
BLFN- 4-319-1	I	.2500	.6562	.343	.245	.500	10°	6,040	430	2,320	1-5	.02
BLFN- 5-318-1	—											
BLFN- 5-319-1	II	.3125	.7500	.375	.276	.593	10°	8,750	700	3,430	1-5	.03
BLFN- 6-318-1	—											
BLFN- 6-319-1	II	.3750	.8125	.406	.307	.625	9°	10,540	1,100	4,200	1-5	.04
BLFN- 7-318-1	—											
BLFN- 7-319-1	II	.4375	.9062	.437	.338	.718	8°	13,200	1,400	5,700	1-5	.05
BLFN- 8-318-1	—											
BLFN- 8-319-1	III	.5000	1.0000	.500	.385	.781	8°	17,900	2,100	7,900	1-5	.07
BLFN- 9-318-1	—											
BLFN- 9-319-1	III	.5625	1.0937	.562	.432	.875	8°	23,200	3,680	10,300	1-5	.09
BLFN-10-318-1	—											
BLFN-10-319-1	III	.6250	1.1875	.625	.495	1.000	8°	30,500	4,720	13,400	1-5	.12
BLFN-12-318-1	—											
BLFN-12-319-1	III	.7500	1.4375	.750	.588	1.250	8°	46,400	6,750	19,700	1-5	.21
BLFN-14-318-1	—											
BLFN-14-319-1	III	.8750	1.5625	.875	.698	1.375	8°	62,200	9,350	26,100	2-8	.27
BLFN-16-318-1	—											
BLFN-16-319-1	III	1.0000	1.7500	1.000	.792	1.562	9°	82,200	12,160	34,100	2-8	.39

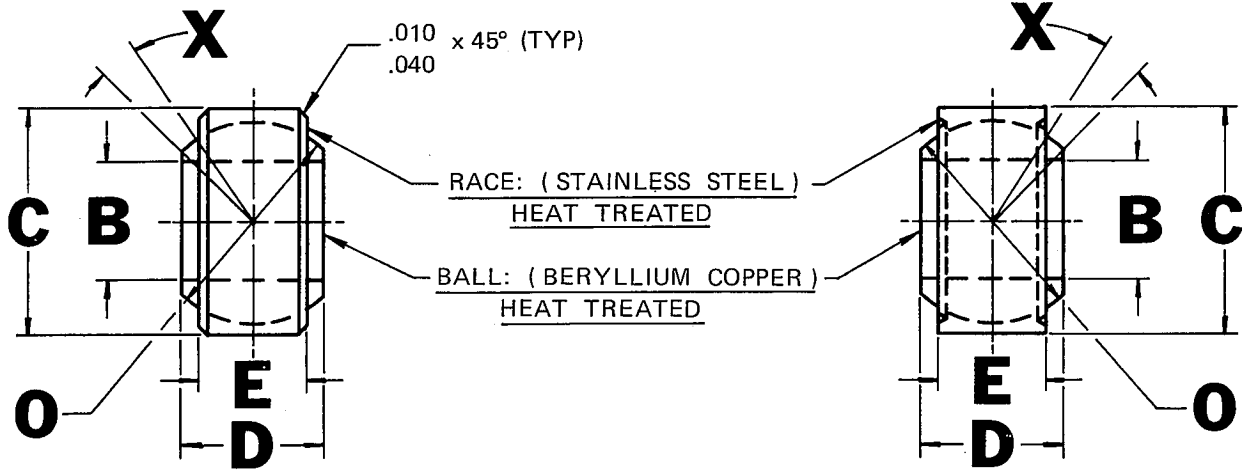
NOTES:

LUBRICATION NOT REQUIRED.
 -318-1 IS EQUIVALENT TO MS 21233.
 -319-1 IS EQUIVALENT TO MS 21232.

SEE PAGE (D) FOR STAKING GROOVE DIMENSIONS.

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8942
 -318-1 (PLAIN)
 LOW FRICTION "MS" SERIES; NARROW: -319-1 (GROOVED)





-2055 PLAIN

-2055 GROOVED

NOTES:

1. FOR LUBRICATION GROOVES & OIL HOLES, PLEASE REFER TO PAGE (C)
2. STAKING GROOVES ON BSSN-X-2025 SERIES ARE STANDARD (DO NOT ADD "S" TO P/N).
FOR STAKING GROOVE DETAIL AND DIMENSIONS ONLY, PLEASE REFER TO PAGE (D) & (E)
3. THESE PARTS ARE INTENDED FOR OSCILLATION UNDER HEAVY LOADS
4. PRE-PACK PER MIL-G-81322; BEARINGS WITH LUBRICATION GROOVES ONLY
5. BEARINGS WITHOUT LUBE GROOVES, DRI LUBE BALL BORE & I.D. OF RACE

INTERCHANGEABILITY LIST

<u>SWPCO DESIGNATION</u>	<u>GOVERNMENT DESIGNATION</u>
BSSN - X - 2025 - G 3 _ _ _ _ _	M81936/1 - X
BSSN - X - 2025 - G 4 _ _ _ _ _	M81936/1 - XR
BSSN - X - 2055 - G 3 _ _ _ _ _	M81936/2 - X
BSSN - X - 2055 - G 4 _ _ _ _ _	M81936/2 - XR

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-81936
BERYLLIUM COPPER BALL "SSN" SERIES

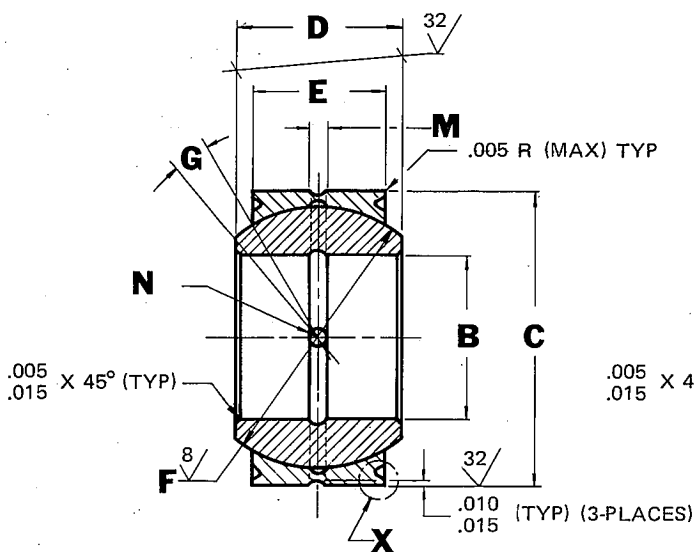


BEARING PART NUMBER	GROOVE TYPE	B	C	D	E	O	X	STATIC LIMIT LOAD LBS.		WEIGHT LBS.
		BORE DIA. +.0000 -.0005	OUTSIDE DIA. +.0000 -.0005	BALL WIDTH +.000 -.005	RACE WIDTH +.000 -.005	BALL DIA. (REF.)	MIS-ALIGNMENT ANGLE	RADIAL	AXIAL	
BSSN-4-2025 BSSN-4-2055	I —	.2500	.6562	.343	.250	.500	13°	6,330	1,930	.022
BSSN-5-2025 BSSN-5-2055	II —	.3125	.7500	.375	.281	.562	11°	8,460	2,450	.032
BSSN-6-2025 BSSN-6-2055	II —	.3750	.8125	.406	.312	.656	9°	11,400	3,090	.040
BSSN-7-2025 BSSN-7-2055	II —	.4375	.9062	.437	.343	.718	8°	14,800	3,740	.053
BSSN-8-2025 BSSN-8-2055	III —	.5000	1.0000	.500	.390	.813	9°	20,400	4,860	.072
BSSN-9-2025 BSSN-9-2055	III —	.5625	1.0937	.562	.437	.875	10°	26,700	6,100	.101
BSSN-10-2025 BSSN-10-2055	III —	.6250	1.1875	.625	.500	.968	9°	33,100	8,080	.121
BSSN-12-2025 BSSN-12-2055	III —	.7500	1.4375	.750	.593	1.187	9°	50,000	11,440	.216
BSSN-13-2025 BSSN-13-2055	III —	.8125	1.5625	.812	.650	1.281	9°	59,000	13,800	.279
BSSN-14-2025 BSSN-14-2055	III —	.8750	1.6562	.875	.703	1.375	8°	70,300	16,160	.335
BSSN-16-2025 BSSN-16-2055	III —	1.0000	1.8750	1.000	.797	1.562	9°	77,700	20,850	.487
BSSN-16-2026	III	1.0000	1.8750	1.000	.840	1.562	7°	77,700	23,260	.504
BSSN-18-2025 BSSN-18-2055	III —	1.1250	2.1250	1.125	.900	1.750	9°	121,500	26,740	.708
BSSN-20-2025 BSSN-20-2055	III —	1.2500	2.3125	1.250	1.000	1.937	9°	152,000	33,065	.914
BSSN-22-2025 BSSN-22-2055	III —	1.3750	2.5625	1.375	1.100	2.156	9°	186,000	40,120	1.248
BSSN-24-2025 BSSN-24-2055	III —	1.5000	2.8125	1.500	1.200	2.344	9°	224,000	47,820	1.645

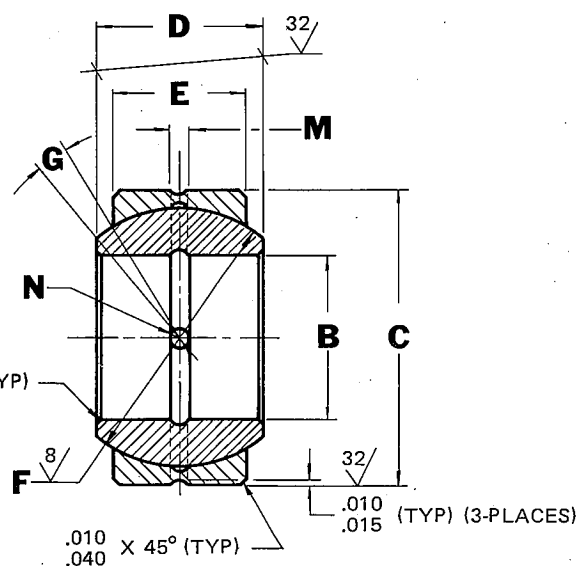
DESIGNERS NOTES

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-81936
BERYLLIUM COPPER BALL "SSN" SERIES

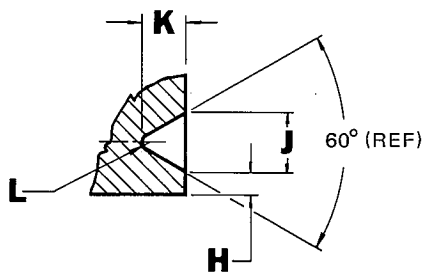




MILITARY STANDARD MS21154B (ASG)
(BLN-X-2215)



MILITARY STANDARD MS 21155B (ASG)
(BLN-X-2210)



DETAIL X (TYP)

GROOVE DIMENSION				
	H	J	K	L
SIZE	+0.000 -0.010	+0.000 -0.010	+0.000 -0.015	+0.005 -0.005
3 - 4	.020	.045	.030	.010
5 - 7	.030	.055	.040	.015
8 - 16	.030	.080	.060	.015

NOTES


MATERIAL: BALL - HIGH GRADE ALLOY STEEL OR STAINLESS STEEL, AMS 5630.
RACE - CODE "B", ALUMINUM BRONZE.

EXAMPLE: BLN-X-2210 = MS21155B-X (PLAIN)
BLN-X-2215 = MS21154B-X (GROOVED)

PREPACK WITH MIL-G-21164 GREASE.
BALL - HARD CHROME PLATE ALL OVER (EXCEPT BORE) PER QQ-C-320, CL2 (.0002 TO .0005 THICK).
RACE - CADMIUM PLATE PER QQ-P-416, TYPE 1, CLASS 3.
GROOVE WIDTH I.D. RACE TO BE MEASURED PRIOR TO SWAGING.
ALL OTHER GROOVE WIDTHS & LUBE HOLE DIA'S TO BE MEASURED AFTER SWAGING.

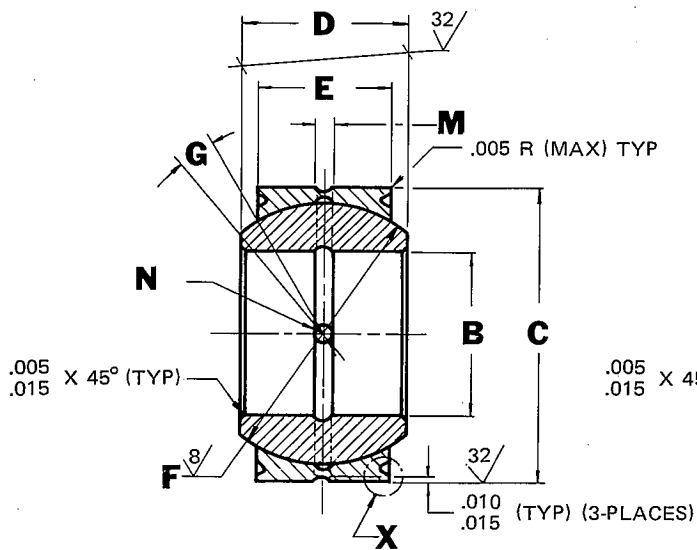
QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8976



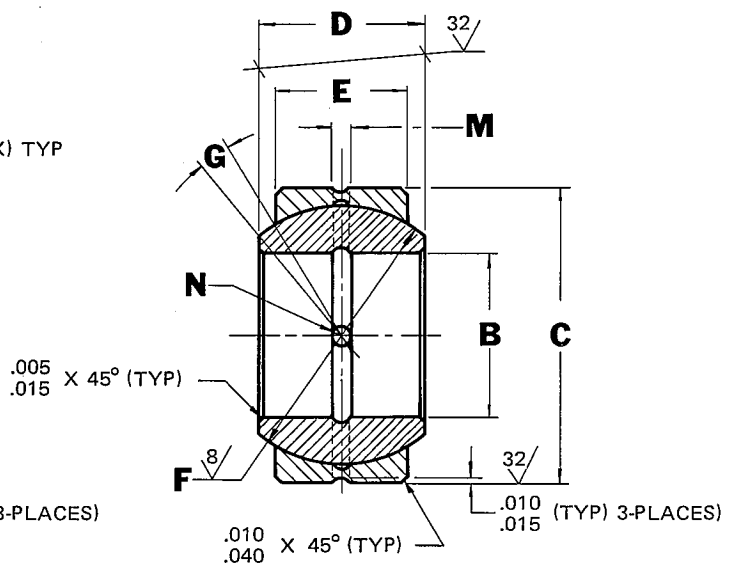
SOUTHWEST PRODUCTS PART NUMBER	B	C	D	E	F	G	M	N	LIMIT STATIC LOAD IN LBS.		WEIGHT IN LBS.
	BORE DIA. +.0000 -.0005	OUTER DIA. +.0000 -.0005	BALL WIDTH +.000 -.002	RACE WIDTH +.005 -.005	BALL DIA. (REF.)	 MIN.	LUBE GROOVE WIDTH ±.005	LUBE HOLE DIA. ±.010	BRONZE RACE RADIAL	RACE AXIAL	
	BLN- 3-2210	.1900	.5625	.281	.218	.437	10	.062	.047	2,800	
BLN- 3-2215											
BLN- 4-2210	.2500	.6562	.343	.250	.500	10	.062	.047	4,300	1,100	.02
BLN- 4-2215											
BLN- 5-2210	.3125	.7500	.375	.281	.593	10	.078	.062	5,200	1,400	.03
BLN- 5-2215											
BLN- 6-2210	.3750	.8125	.406	.312	.625	9	.078	.062	6,750	1,760	.04
BLN- 6-2215											
BLN- 7-2210	.4375	.9062	.437	.343	.718	8	.078	.062	8,500	2,150	.05
BLN- 7-2215											
BLN- 8-2210	.5000	1.0000	.500	.390	.781	8	.078	.062	11,500	2,800	.07
BLN- 8-2215											
BLN- 9-2210	.5625	1.0937	.562	.437	.875	8	.078	.062	15,600	3,550	.09
BLN- 9-2215											
BLN-10-2210	.6250	1.1875	.625	.500	1.000	8	.093	.078	19,500	4,650	.12
BLN-10-2215											
BLN-12-2210	.7500	1.4375	.750	.593	1.250	8	.093	.078	28,500	6,575	.21
BLN-12-2215											
BLN-14-2210	.8750	1.5625	.875	.703	1.375	8	.093	.078	38,300	9,300	.27
BLN-14-2215											
BLN-16-2210	1.0000	1.7500	1.000	.797	1.562	9	.093	.078	51,000	12,000	.39
BLN-16-2215											

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8976

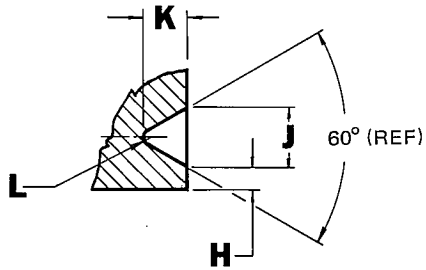




MILITARY STANDARD MS 21154S (ASG)
(BSN-X-2216)



MILITARY STANDARD MS 21155S (ASG)
(BSN-X-2211)



DETAIL X (TYP)

GROOVE DIMENSION				
	H	J	K	L
SIZE	+0.000 -0.010	+0.000 -0.010	+0.000 -0.015	+0.005 -0.005
3 - 4	.020	.045	.030	.010
5 - 7	.030	.055	.040	.015
8 - 16	.030	.080	.060	.015

NOTES

- MATERIAL:** BALL - HIGH GRADE ALLOY STEEL OR STAINLESS STEEL, AMS 5630.
RACE - CODE "S" ALLOY STEEL, MIL-S-5000
- EXAMPLE:** BSN-X-2211 = MS 21155S-X (PLAIN)
BSN-X-2216 = MS 21154S-X (GROOVED)

PREPACK WITH MIL-G-21164 GREASE.
BALL - HARD CHROME PLATE ALL OVER (EXCEPT BORE) PER QQ-C-320, CL2 (.0002 TO .0005 THICK).
RACE - CADMIUM PLATE PER QQ-P-416, TYPE 1, CLASS 3.
GROOVE WIDTH I.D. RACE TO BE MEASURED PRIOR TO SWAGING.
ALL OTHER GROOVE WIDTHS & LUBE HOLE DIA'S TO BE MEASURED AFTER SWAGING.

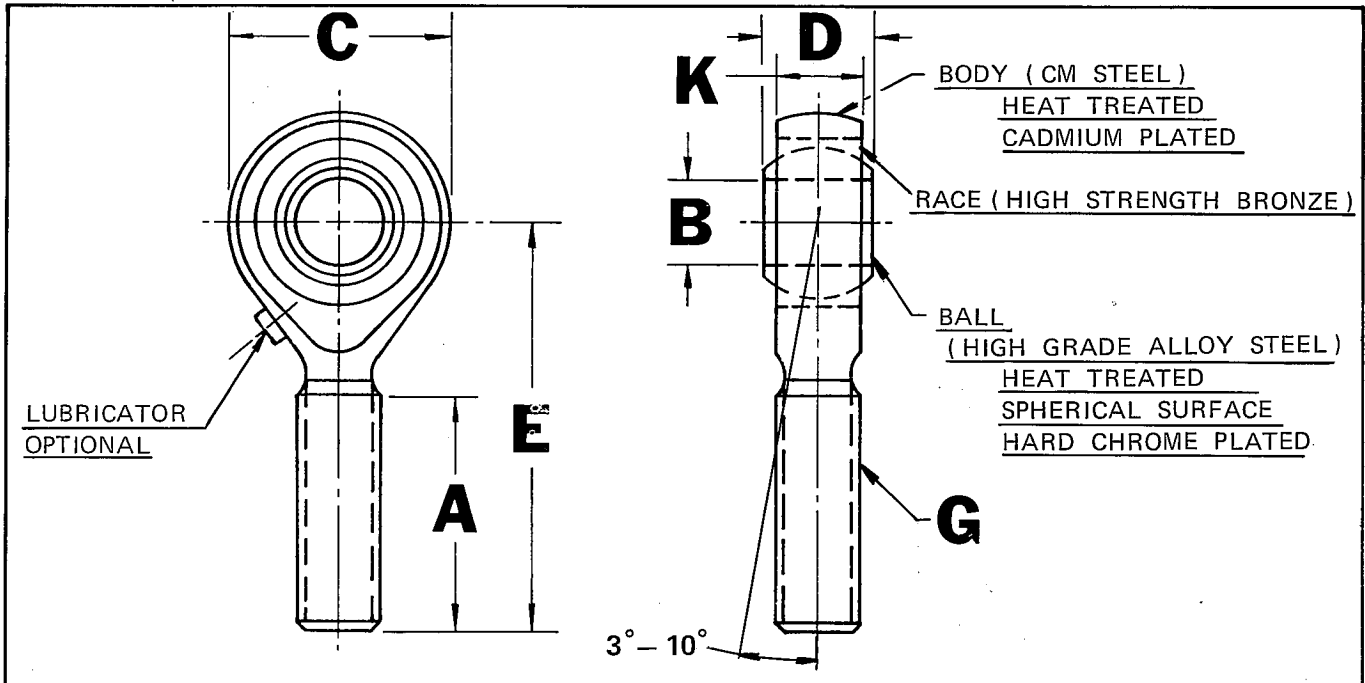
QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8976



SOUTHWEST PRODUCTS PART NUMBER	B	C	D	E	F	G	M	N	LIMIT STATIC LOAD IN LBS.		WEIGHT IN LBS.
	BORE DIA. +.0000 -.0005	OUTER DIA. +.0000 -.0005	BALL WIDTH +.000 -.002	RACE WIDTH +.005 -.005	BALL DIA. (REF.)	MIN.	LUBE GROOVE WIDTH ±.005	LUBE HOLE DIA. ±.010	STEEL	RACE	
									RADIAL	AXIAL	
BSN- 3-2211	.1900	.5625	.281	.218	.406	10	.062	.047	4,600	2,100	.01
BSN- 3-2216											
BSN- 4-2211	.2500	.6562	.343	.250	.500	10	.062	.047	7,080	2,800	.02
BSN- 4-2216											
BSN- 5-2211	.3125	.7500	.375	.281	.562	10	.078	.062	8,500	3,550	.03
BSN- 5-2216											
BSN- 6-2211	.3750	.8125	.406	.312	.625	9	.078	.062	11,050	4,400	.04
BSN- 6-2216											
BSN- 7-2211	.4375	.9062	.437	.343	.687	8	.078	.062	13,900	5,400	.05
BSN- 7-2216											
BSN- 8-2211	.5000	1.0000	.500	.390	.781	8	.078	.062	18,850	7,050	.07
BSN- 8-2216											
BSN- 9-2211	.5625	1.0937	.562	.437	.875	8	.078	.062	25,500	8,900	.09
BSN- 9-2216											
BSN-10-2211	.6250	1.1875	.625	.500	.969	8	.093	.078	31,950	11,700	.12
BSN-10-2216											
BSN-12-2211	.7500	1.4375	.750	.593	1.187	8	.093	.078	46,750	16,500	.21
BSN-12-2216											
BSN-14-2211	.8750	1.5625	.875	.703	1.312	8	.093	.078	62,750	23,300	.27
BSN-14-2216											
BSN-16-2211	1.0000	1.7500	1.000	.797	1.500	9	.093	.078	83,350	30,000	.39
BSN-16-2216											

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8976





ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-3080	.1900	.875	.500	1.812	1.062	3/8-24	.327	5,500
BRE-3090	.1900	.781	.437	1.562	1.000	5/16-24	.337	4,500
BRE-4090	.2500	.875	.500	1.812	1.062	3/8-24	.327	5,500
BRE-4100	.2500	.781	.437	1.562	1.000	5/16-24	.337	4,500
BRE-5120	.3125	.875	.437	1.875	1.062	5/16-24	.327	5,500
BRE-6020	.3750	1.312	.812	2.531	1.500	7/16-20	.577	12,800
BRE-6030	.3750	1.000	.500	1.938	1.250	3/8-24	.416	6,800
BRE-7010	.4375	1.125	.562	2.125	1.375	7/16-20	.452	7,400
BRE-8010	.5000	1.312	.625	2.438	1.500	1/2-20	.515	13,500
BRE-10010	.6250	1.500	.750	2.625	1.625	5/8-18	.577	16,000
BRE-12010	.7500	1.750	.875	2.875	1.750	3/4-16	.640	22,000
BRE-14010	.8750	2.000	.875	3.375	1.875	7/8-14	.765	30,000
BRE-16010	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	59,000
BRE-20010	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	75,000
BRE-24245	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	121,800
BRE-28246	*1.7500	3.875	1.875	7.000	4.375	*1 3/4-12	1.312	137,000
BRE-32246	*2.0000	4.375	1.937	7.875	5.000	* 2-12	1.375	203,000
BRE-36245	*2.2500	5.000	2.000	9.000	5.625	*2 1/4-12	1.406	248,000
BRE-40245	*2.5000	5.437	2.062	9.875	6.250	*2 1/2-12	1.437	274,000
BRE-44245	*2.7500	5.750	2.187	10.625	6.750	*2 3/4-12	1.500	326,000

*+.002 -.0005

*UN-2A & UN-3A

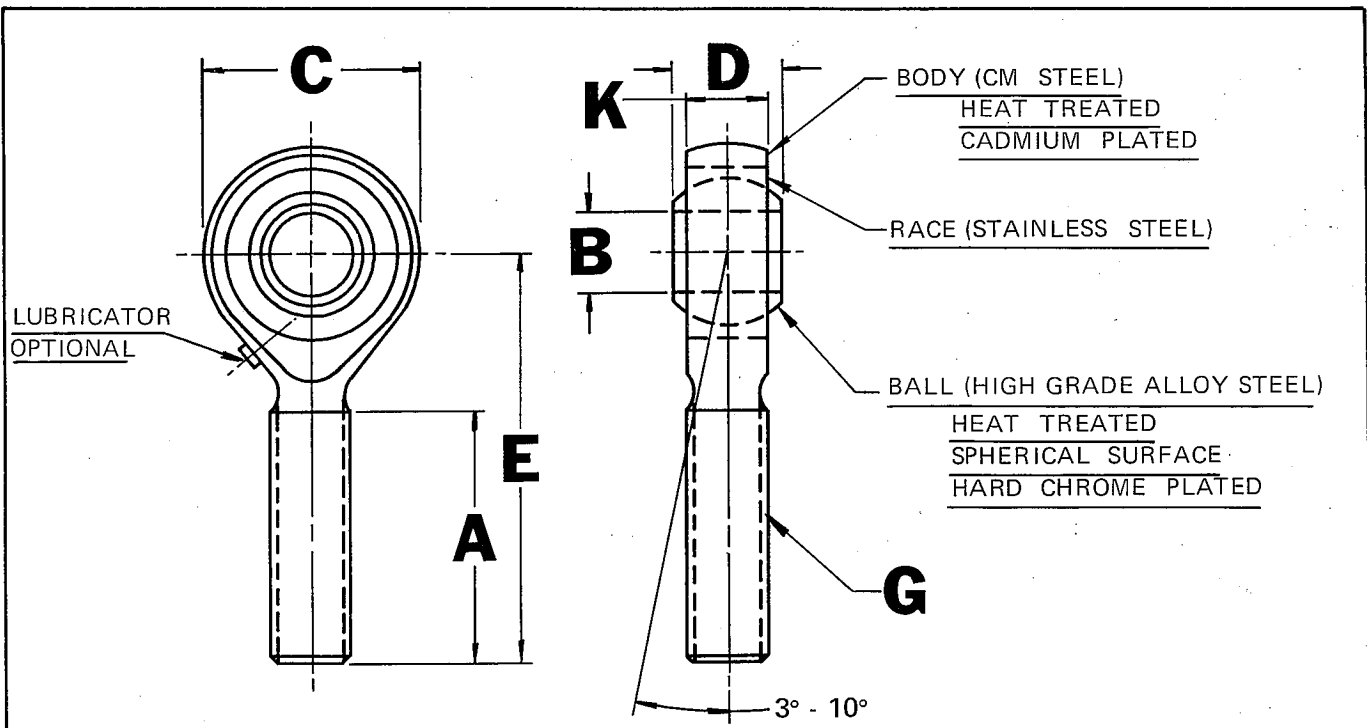
NOTES:

1. ALL THESE ROD ENDS CONTAIN A HIGH-STRENGTH BRONZE RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8010-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED ROD END
"L" SERIES**



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-3085	.1900	.875	.500	1.812	1.062	3/8 -24	.327	5,500
BRE-3105	.1900	.781	.437	1.562	1.000	5/16 -24	.337	4,500
BRE-4095	.2500	.875	.500	1.812	1.062	3/8 -24	.327	5,500
BRE-4140	.2500	.781	.437	1.562	1.000	5/16 -24	.337	4,500
BRE-5170	.3125	.875	.437	1.875	1.062	5/16 -24	.327	5,500
BRE-6045	.3750	1.000	.500	1.938	1.250	3/8 -24	.416	6,800
BRE-6050	.3750	1.312	.812	2.531	1.500	7/16 -20	.577	12,800
BRE-7030	.4375	1.125	.562	2.125	1.375	7/16 -20	.452	7,400
BRE-8035	.5000	1.312	.625	2.438	1.500	1/2 -20	.515	13,500
BRE-10015	.6250	1.500	.750	2.625	1.625	5/8 -18	.577	16,000
BRE-12015	.7500	1.750	.875	2.875	1.750	3/4 -16	.640	22,000
BRE-14015	.8750	2.000	.875	3.375	1.875	7/8 -14	.765	30,000
BRE-16045	1.0000	2.750	1.375	4.125	2.125	1 1/4 -12	1.015	59,000
BRE-20015	1.2500	2.875	1.357	5.000	3.125	1 1/4 -12	1.140	75,000
BRE-24275	1.5000	3.500	1.687	6.250	3.750	1 1/2 -12	1.218	121,800
BRE-28275	* 1.7500	3.875	1.875	7.000	4.375	* 1 3/4 -12	1.312	137,000
BRE-32275	* 2.0000	4.375	1.937	7.875	5.000	* 2 -12	1.375	203,000
BRE-36275	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/4 -12	1.406	248,000
BRE-40275	* 2.5000	5.437	2.062	9.875	6.250	* 2 1/2 -12	1.437	274,000
BRE-44275	* 2.7500	5.750	2.187	10.625	6.750	* 2 3/4 -12	1.500	326,000

NOTES:

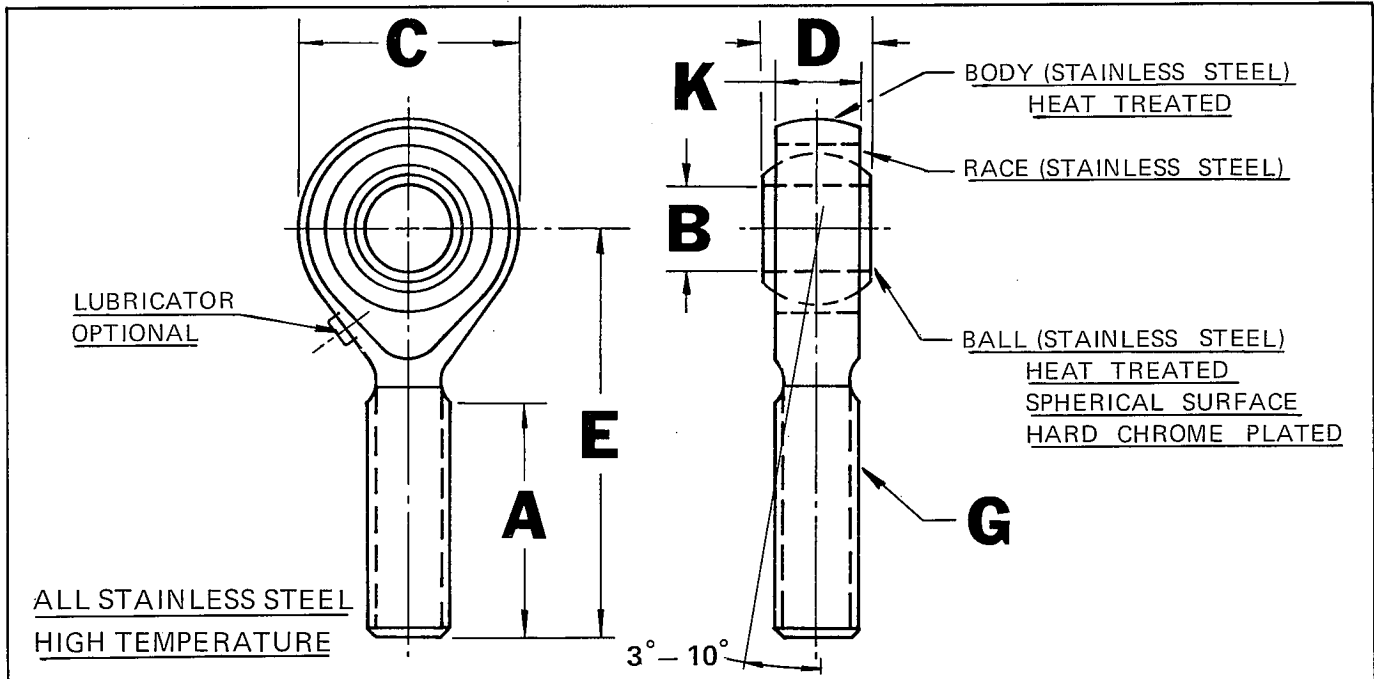
1. ALL THESE ROD ENDS CONTAIN A STAINLESS STEEL RACE
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8035-L.
3. LEFT-HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

*+.002 -.0005

*UN-2A & UN-3A

**EXTERNALLY THREADED ROD END
"SS" SERIES**





ROD END PART NO	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-3750	.1900	.875	.500	1.812	1.062	3/8-24	.327	3,300
BRE-3755	.1900	.781	.437	1.562	1.000	5/16-24	.337	1,600
BRE-4980	.2500	.875	.500	1.812	1.062	3/8-24	.327	3,300
BRE-4985	.2500	.781	.437	1.562	1.000	5/16-24	.337	1,600
BRE-5475	.3125	.875	.437	1.875	1.062	5/16-24	.327	3,300
BRE-6570	.3750	1.000	.500	1.938	1.250	3/8-24	.416	3,900
BRE-6575	.3750	1.312	.812	2.531	1.500	7/16-20	.577	4,100
BRE-7335	.4375	1.125	.562	2.125	1.375	7/16-20	.452	4,900
BRE-8505	.5000	1.312	.625	2.438	1.500	1/2-20	.515	8,250
BRE-10425	.6250	1.500	.750	2.625	1.625	5/8-18	.577	12,000
BRE-12360	.7500	1.750	.875	2.875	1.750	3/4-16	.640	16,500
BRE-14215	.8750	2.000	.875	3.375	1.875	7/8-14	.765	21,000
BRE-16290	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	26,250
BRE-20160	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	41,250
BRE-24500	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	80,000
BRE-28500	*1.7500	3.875	1.875	7.000	4.375	*1 3/4-12	1.312	90,000
BRE-32500	*2.0000	4.375	1.937	7.875	5.000	* 2-12	1.375	133,000
BRE-36500	*2.2500	5.000	2.000	9.000	5.625	*2 1/4-12	1.406	163,000
BRE-40500	*2.5000	5.437	2.062	9.875	6.250	*2 1/2-12	1.437	179,000
BRE-44500	*2.7500	5.750	2.187	10.625	6.750	*2 3/4-12	1.500	214,000

NOTES:

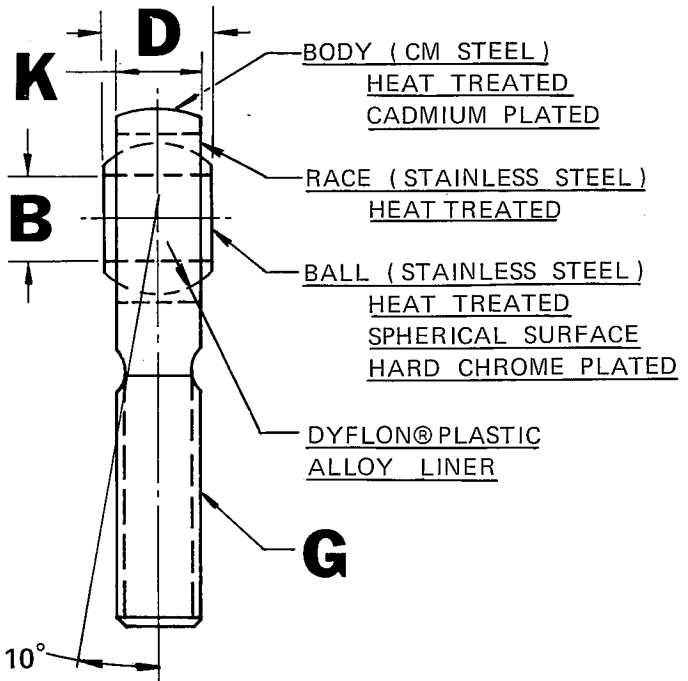
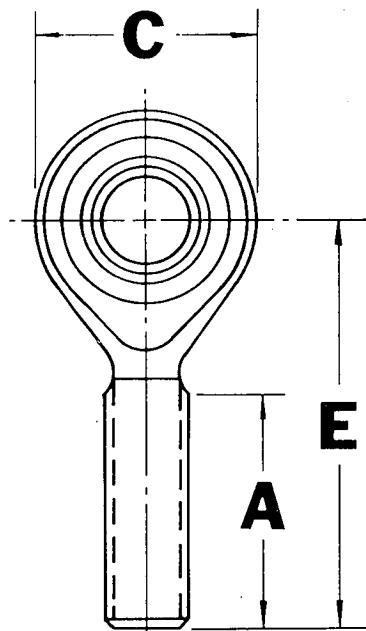
1. THESE ROD ENDS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
3. SHORT TIME LOADING AT 1000° F.
4. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
5. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
6. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8505-L.

*+.002 -.0005

*UN-2A & UN-3A

**EXTERNALLY THREADED
HIGH TEMPERATURE ROD END**





SELF LUBRICATED

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREM- 3	.1900	.781	.437	1.562	1.000	5/16-24	.337	3,600
DREM- 4	.2500	.781	.437	1.562	1.000	5/16-24	.337	5,740
DREM- 5	.3125	.875	.437	1.875	1.062	5/16-24	.327	6,800
DREM- 6	.3750	1.000	.500	1.938	1.250	3/8-24	.416	7,100
DREM- 7	.4375	1.125	.562	2.125	1.375	7/16-20	.452	9,500
DREM- 8	.5000	1.312	.625	2.438	1.500	1/2-20	.515	13,800
DREM-10	.6250	1.500	.750	2.625	1.625	5/8-18	.577	21,000
DREM-12	.7500	1.750	.875	2.875	1.750	3/4-16	.640	24,000
DREM-14	.8750	2.000	.875	3.375	1.875	7/8-14	.765	36,000
DREM-16	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	52,000
DREM-20	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	70,500
DREM-24	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	162,000
DREM-28	*1.7500	3.875	1.875	7.000	4.375	*1 3/4-12	1.312	245,000
DREM-32	*2.0000	4.375	1.937	7.875	5.000	* 2-12	1.375	340,000
DREM-36	*2.2500	5.000	2.000	9.000	5.625	*2 1/4-12	1.406	415,000
DREM-40	*2.5000	5.437	2.062	9.875	6.250	*2 1/2-12	1.437	465,000
DREM-44	*2.7500	5.750	2.187	10.625	6.750	*2 3/4-12	1.500	515,000

*+.0015 -.0005

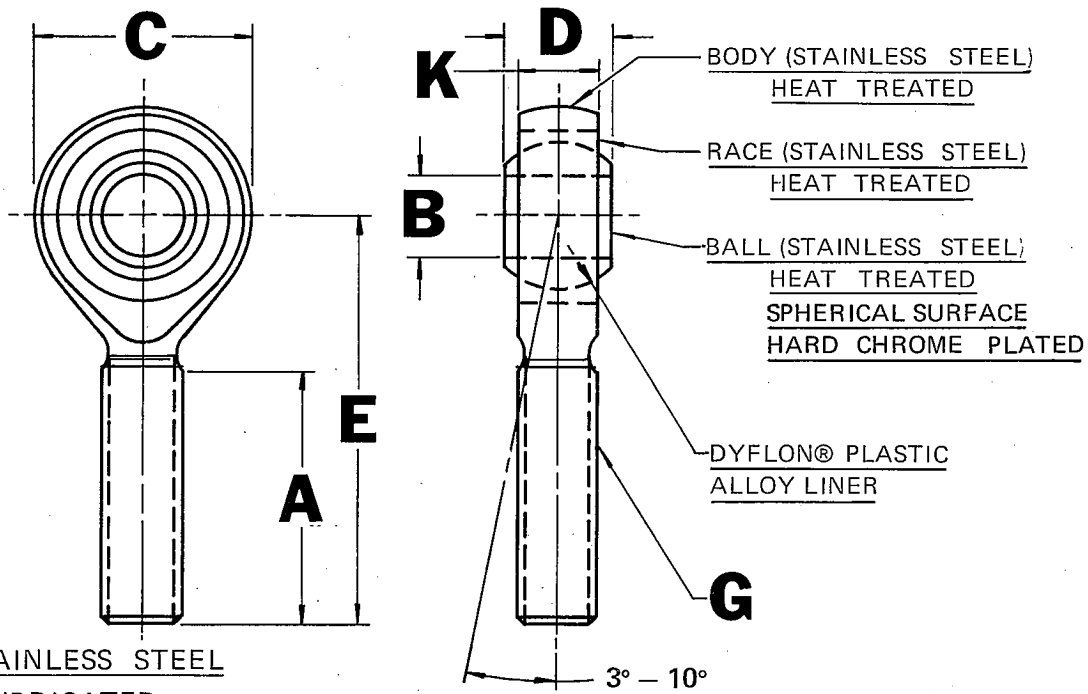
*UN -2A & UN-3A

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT HAND THREAD REQUIRED. EXAMPLE--DREMLH-8.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED
LOW FRICTION ROD END**





ALL STAINLESS STEEL
SELF LUBRICATED

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.002	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREM- 3-070	.1900	.781	.437	1.562	1.000	5/16-24	.337	4,250
DREM- 4-070	.2500	.781	.437	1.562	1.000	5/16-24	.337	5,740
DREM- 5-070	.3125	.875	.437	1.875	1.062	5/16-24	.327	7,000
DREM- 6-070	.3750	1.000	.500	1.938	1.250	3/8-24	.416	7,460
DREM- 7-070	.4375	1.125	.562	2.125	1.375	7/16-20	.452	9,650
DREM- 8-070	.5000	1.312	.625	2.438	1.500	1/2-20	.515	17,480
DREM-10-070	.6250	1.500	.750	2.625	1.625	5/8-18	.577	21,000
DREM-12-070	.7500	1.750	.875	2.875	1.750	3/4-16	.640	28,400
DREM-14-070	.8750	2.000	.875	3.375	1.875	7/8-14	.765	38,350
DREM-16-070	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	73,300
DREM-20-070	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	77,340
DREM-24-070	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	114,100
DREM-28-070	*1.7500	3.875	1.875	7.000	4.375	* 1 3/4-12	1.312	128,430
DREM-32-070	*2.0000	4.375	1.937	7.875	5.000	* 2-12	1.375	190,300
DREM-36-070	*2.2500	5.000	2.000	9.000	5.625	* 2 1/4-12	1.406	232,500
DREM-40-070	*2.5000	5.437	2.062	9.875	6.250	* 2 1/2-12	1.437	256,800
DREM-44-070	*2.7500	5.750	2.187	10.625	6.750	* 2 3/4-12	1.500	305,600

*+.0015 -.0005

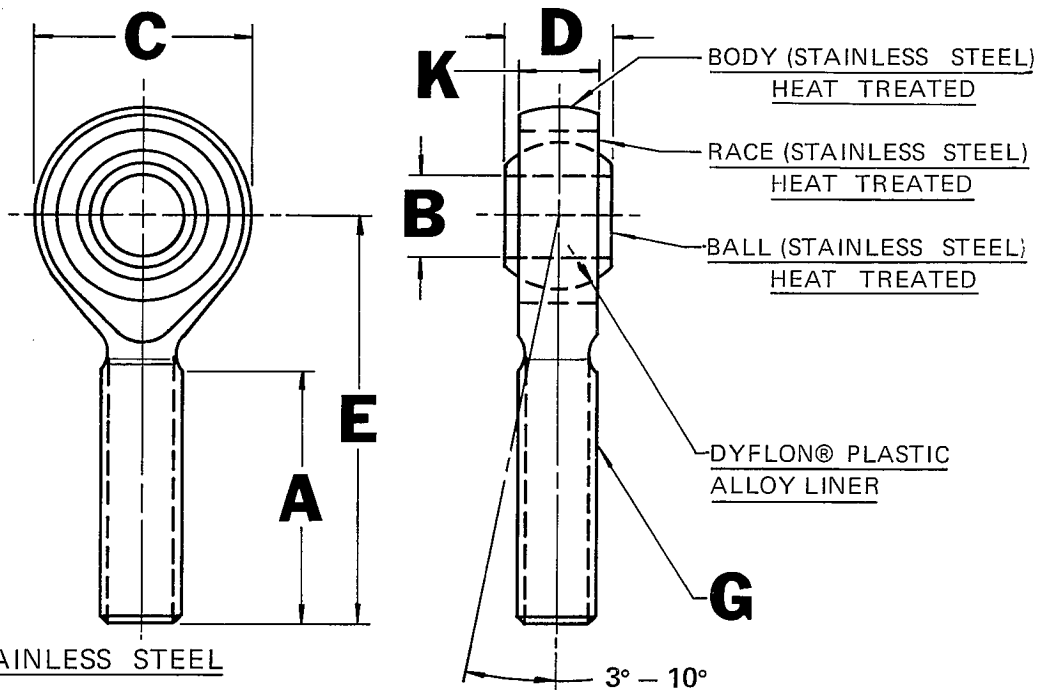
* UN-2A & UN-3A

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
4. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREMLH-8-070.

**EXTERNALLY THREADED
LOW-FRICTION ROD END**





ALL STAINLESS STEEL
SELF LUBRICATED
SALT WATER IMMERSION

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREM-3-500	.1900	.781	.437	1.562	1.000	5/16-24	.337	4,250
DREM-4-500	.2500	.781	.437	1.562	1.000	5/16-24	.337	5,740
DREM-5-500	.3125	.875	.437	1.875	1.062	5/16-24	.327	7,000
DREM-6-500	.3750	1.000	.500	1.938	1.250	3/8-24	.416	7,460
DREM-7-500	.4375	1.125	.562	2.125	1.375	7/16-20	.452	9,650
DREM-8-500	.5000	1.312	.625	2.438	1.500	1/2-20	.515	17,480
DREM-10-500	.6250	1.500	.750	2.625	1.625	5/8-18	.577	21,000
DREM-12-500	.7500	1.750	.875	2.875	1.750	3/4-16	.640	28,400
DREM-14-500	.8750	2.000	.875	3.375	1.875	7/8-14	.765	38,350
DREM-16-500	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	73,300
DREM-20-500	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	77,340
DREM-24-500	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	114,100
DREM-28-500	*1.7500	3.875	1.875	7.000	4.375	** 1 3/4-12	1.312	128,430
DREM-32-500	*2.0000	4.375	1.937	7.875	5.000	** 2-12	1.375	190,300
DREM-36-500	*2.2500	5.000	2.000	9.000	5.625	** 2 1/4-12	1.406	232,500
DREM-40-500	*2.5000	5.437	2.062	9.875	6.250	** 2 1/2-12	1.437	256,800
DREM-44-500	*2.7500	5.750	2.187	10.625	6.750	** 2 3/4-12	1.500	305,600

*+.0015 -.0005

* UN-2A & UN-3A

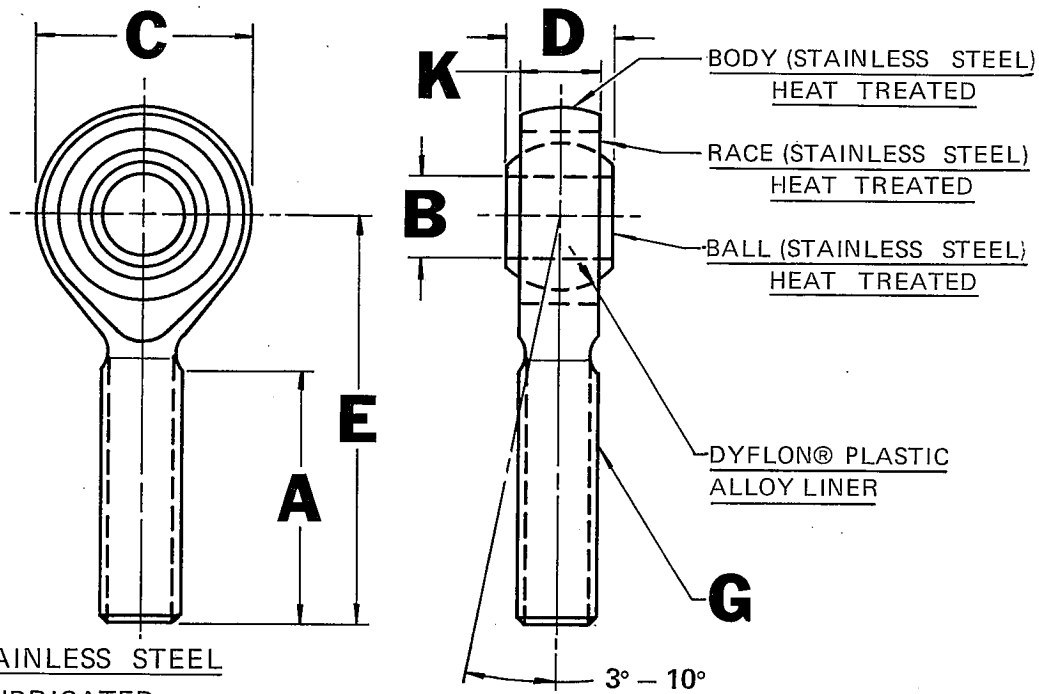
NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
4. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.

EXAMPLE-DREMLH-8-500.

EXTERNALLY THREADED
LOW-FRICTION ROD END





ALL STAINLESS STEEL
SELF LUBRICATED
SALT WATER IMMERSION

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.002	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREM- 3-370	.1900	.781	.437	1.562	1.000	5/16-24	.337	4,250
DREM- 4-370	.2500	.781	.437	1.562	1.000	5/16-24	.337	5,740
DREM- 5-370	.3125	.875	.437	1.875	1.062	5/16-24	.327	7,000
DREM- 6-370	.3750	1.000	.500	1.938	1.250	3/8-24	.416	7,460
DREM- 7-370	.4375	1.125	.562	2.125	1.375	7/16-20	.452	9,650
DREM- 8-370	.5000	1.312	.625	2.438	1.500	1/2-20	.515	17,480
DREM-10-370	.6250	1.500	.750	2.625	1.625	5/8-18	.577	21,000
DREM-12-370	.7500	1.750	.875	2.875	1.750	3/4-16	.640	28,400
DREM-14-370	.8750	2.000	.875	3.375	1.875	7/8-14	.765	38,350
DREM-16-370	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	73,300
DREM-20-370	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	77,340
DREM-24-370	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	114,100
DREM-28-370	*1.7500	3.875	1.875	7.000	4.375	* 1 3/4-12	1.312	128,430
DREM-32-370	*2.0000	4.375	1.937	7.875	5.000	* 2-12	1.375	190,300
DREM-36-370	*2.2500	5.000	2.000	9.000	5.625	* 2 1/4-12	1.406	232,500
DREM-40-370	*2.5000	5.437	2.062	9.875	6.250	* 2 1/2-12	1.437	256,800
DREM-44-370	*2.7500	5.750	2.187	10.625	6.750	* 2 3/4-12	1.500	305,600

*+.0015 - .0005

* UN-2A & UN-3A

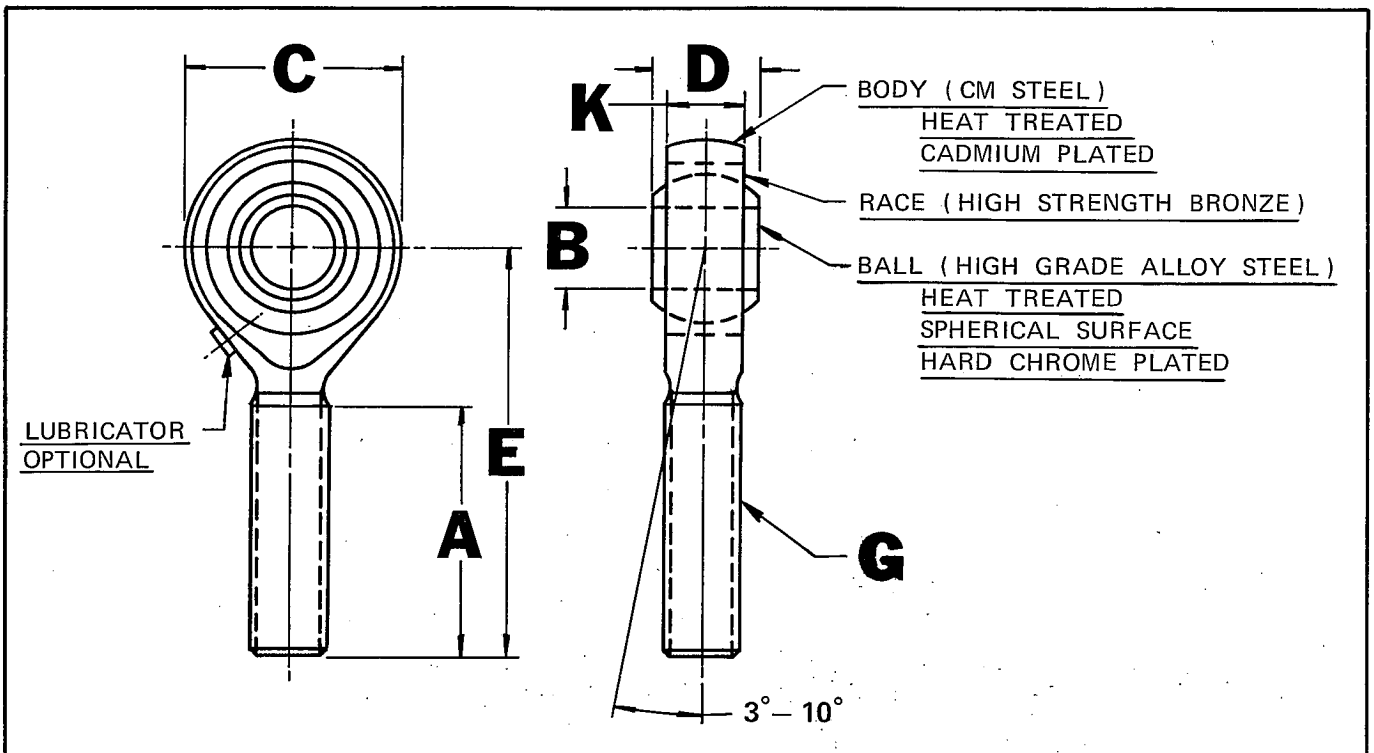
NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
4. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.

EXAMPLE-DREMLH-8-370.

**EXTERNALLY THREADED
LOW-FRICTION ROD END**





ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-4435	.2500	.750	.375	1.562	1.000	5/16-24	.281	5,740
BRE-5205	.3125	.875	.437	1.875	1.250	3/8-24	.344	8,000
BRE-6195	.3750	1.000	.500	1.938	1.250	7/16-20	.406	10,380
BRE-7135	.4375	1.125	.562	2.125	1.375	1/2-20	.437	12,150
BRE-8220	.5000	1.312	.625	2.438	1.500	5/8-18	.500	16,600
BRE-10170	.6250	1.500	.750	2.625	1.625	3/4-16	.562	23,250
BRE-12130	.7500	1.750	.875	2.875	1.750	7/8-14	.687	30,250
BRE-14070	.8750	2.000	.875	3.375	1.875	1-12	.765	35,250
BRE-16585	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	62,500
BRE-20620	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	78,800
BRE-24310	1.5000	3.500	1.687	6.250	3.750	* 1 3/4-12	1.312	125,000
BRE-28310	* 1.7500	3.875	1.812	7.000	4.375	* 2-12	1.375	142,000
BRE-32310	* 2.0000	4.375	1.937	7.875	5.000	* 2 1/4-12	1.406	193,000
BRE-36310	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/2-12	1.437	245,000
BRE-40310	* 2.5000	5.437	2.062	9.875	6.250	* 2 3/4-12	1.500	281,000
BRE-44310	* 2.7500	5.750	2.187	10.625	6.750	* 3-12	1.562	318,000

*+.002 -.0005

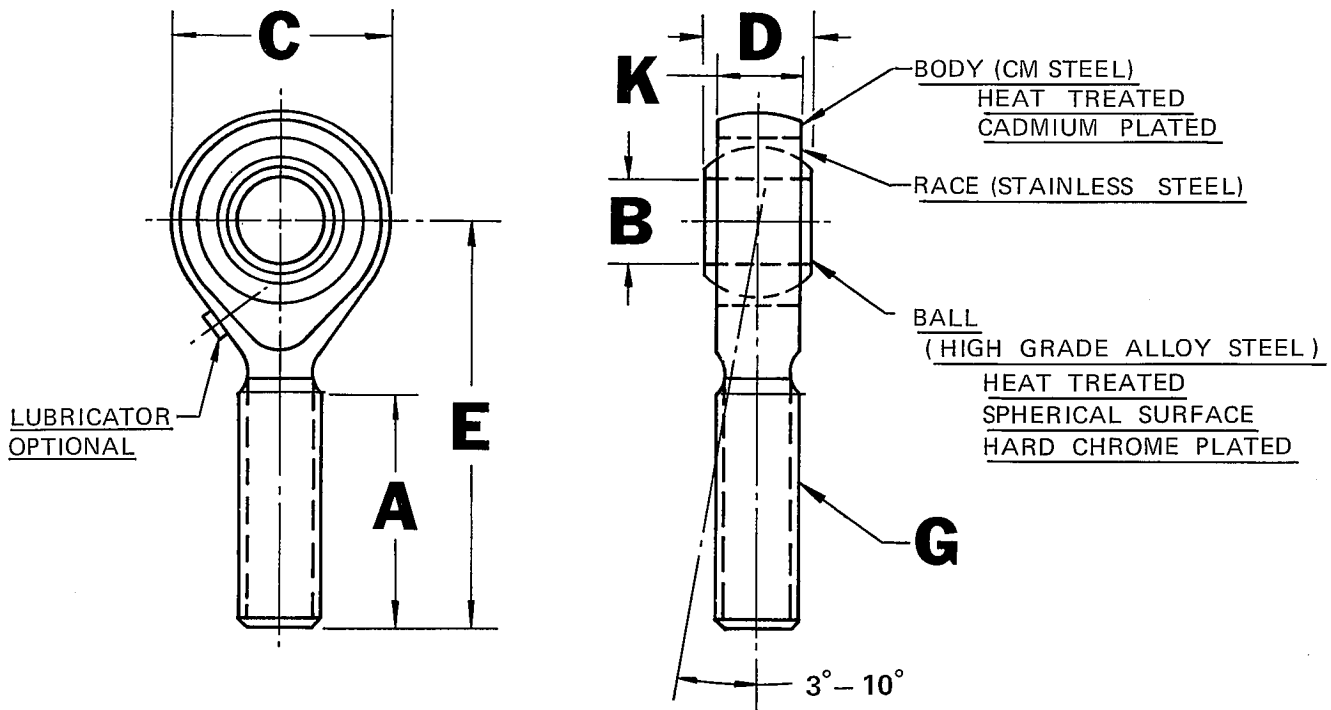
* UN-2A & UN-3A

NOTES:

1. ALL THESE ROD ENDS CONTAIN A HIGH-STRENGTH BRONZE RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8220-L.
3. PART NUMBERS FOR ABOVE ROD ENDS WITH LEFT-HAND THREADS CAN BE FURNISHED UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED
HEAVY DUTY ROD END
"L" SERIES**





ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-4440	.2500	.750	.375	1.562	1.000	5/16-24	.281	5,740
BRE-5240	.3125	.875	.437	1.875	1.250	3/8-24	.344	8,000
BRE-6240	.3750	1.000	.500	1.938	1.250	7/16-20	.406	10,380
BRE-7140	.4375	1.125	.562	2.125	1.375	1/2-20	.437	12,150
BRE-8225	.5000	1.312	.625	2.438	1.500	5/8-18	.500	16,600
BRE-10175	.6250	1.500	.750	2.625	1.625	3/4-16	.562	23,250
BRE-12135	.7500	1.750	.875	2.875	1.750	7/8-14	.687	30,250
BRE-14560	.8750	2.000	.875	3.375	1.875	1-12	.765	35,250
BRE-16590	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	62,500
BRE-20625	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	78,800
BRE-24315	1.5000	3.500	1.687	6.250	3.750	* 1 3/4-12	1.312	125,000
BRE-28315	* 1.7500	3.875	1.812	7.000	4.375	* 2-12	1.375	142,000
BRE-32315	* 2.0000	4.375	1.937	7.875	5.000	* 2 1/4-12	1.406	193,000
BRE-36315	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/2-12	1.437	245,000
BRE-40315	* 2.5000	5.437	2.062	9.875	7.250	* 2 3/4-12	1.500	281,000
BRE-44315	* 2.7500	5.750	2.187	10.625	6.750	* 3-12	1.562	318,000

*+.002 -.0005

* UN-2A & UN-3A

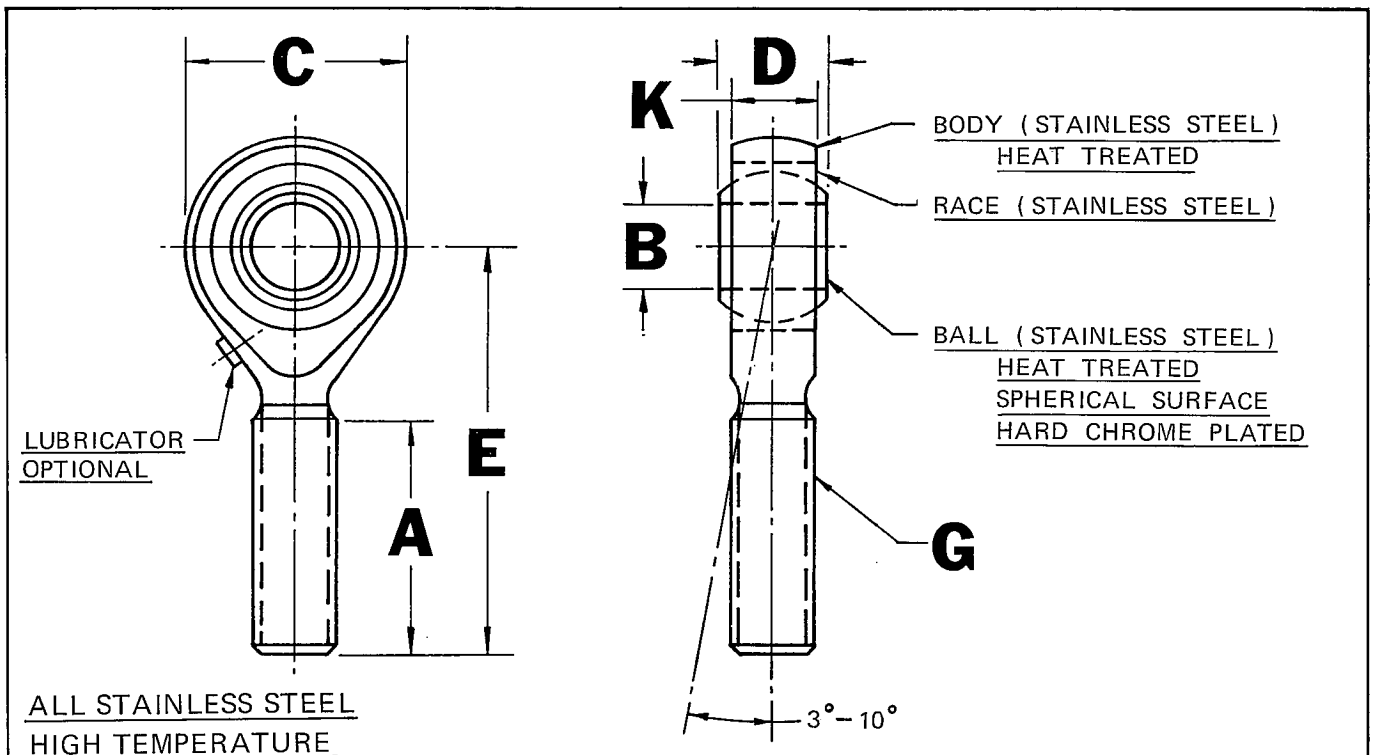
NOTES:

1. ALL THESE ROD ENDS CONTAIN A STAINLESS STEEL RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8225-L.
3. PART NUMBERS FOR ABOVE ROD ENDS WITH LEFT-HAND THREADS CAN BE FURNISHED UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED
HEAVY DUTY ROD END
"SS" SERIES**



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



ALL STAINLESS STEEL
HIGH TEMPERATURE

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	☉ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-4458	.2500	.750	.375	1.562	1.000	5/16-24	.281	4,100
BRE-5610	.3125	.875	.437	1.875	1.250	3/8-24	.344	5,700
BRE-6585	.3750	1.000	.500	1.938	1.250	7/16-20	.406	7,400
BRE-7450	.4375	1.125	.562	2.125	1.375	1/2-20	.437	8,700
BRE-8590	.5000	1.312	.625	2.438	1.500	5/8-18	.500	11,900
BRE-10525	.6250	1.500	.750	2.625	1.625	3/4-16	.562	16,600
BRE-12485	.7500	1.750	.875	2.875	1.750	7/8-14	.687	21,700
BRE-14555	.8750	2.000	.875	3.375	1.875	1-12	.765	23,600
BRE-16610	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	41,700
BRE-20805	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	52,500
BRE-24305	1.5000	3.500	1.687	6.250	3.750	* 1 3/4-12	1.312	82,000
BRE-28305	* 1.7500	3.875	1.812	7.000	4.375	* 2-12	1.375	93,000
BRE-32305	* 2.0000	4.375	1.937	7.875	5.000	* 2 1/4-12	1.406	126,000
BRE-36305	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/2-12	1.437	161,000
BRE-40305	* 2.5000	5.437	2.062	9.875	6.250	* 2 3/4-12	1.500	184,000
BRE-44305	* 2.7500	5.750	2.187	10.625	6.750	* 3-12	1.562	208,000

*+.002 -.0005

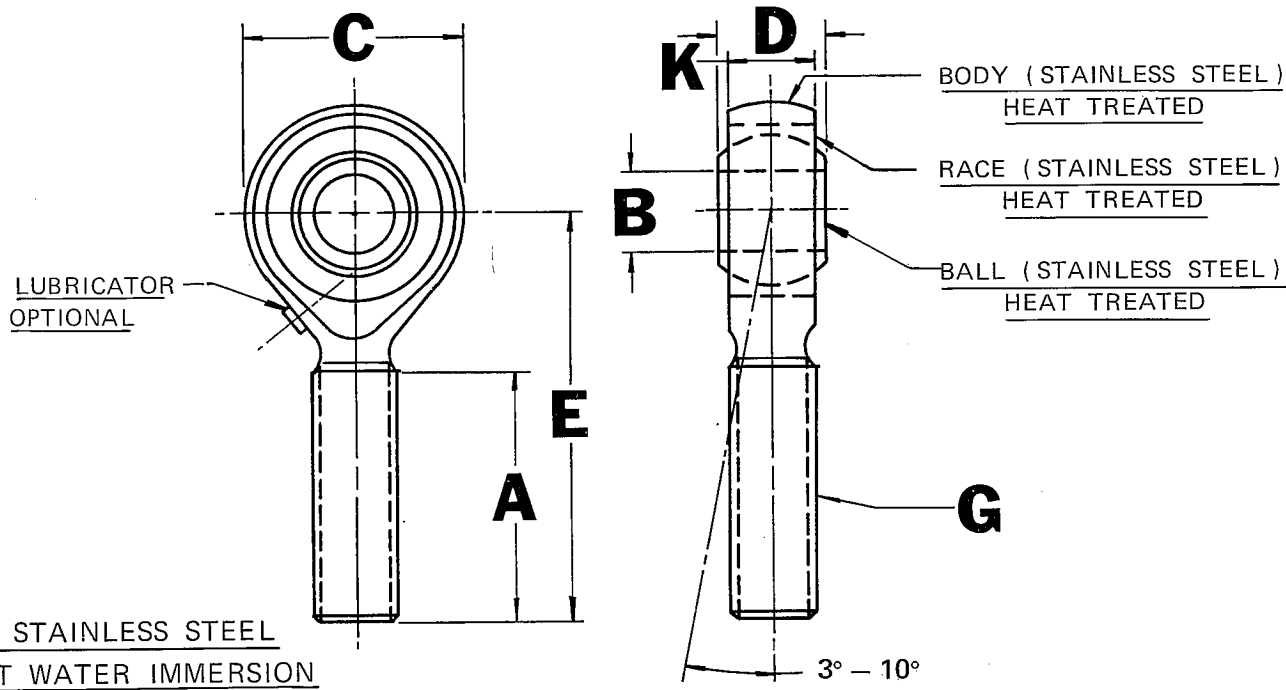
* UN-2A & UN-3A

NOTES:

1. THESE ROD ENDS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
3. SHORT TIME LOADING AT 1000° F.
4. LEFT HAND PART NUMBERS AVAILABLE UPON REQUEST.
5. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
6. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8590-L.

**EXTERNALLY THREADED
HEAVY DUTY
HIGH TEMPERATURE ROD END**





ALL STAINLESS STEEL
SALT WATER IMMERSION

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	¢ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
BRE-3-2105	.1900	.875	.500	1.812	1.062	3/8-24	.327	5,500
BRE-3-2110	.1900	.781	.437	1.562	1.000	5/16-24	.337	4,500
BRE-4-2105	.2500	.875	.500	1.812	1.062	3/8-24	.327	5,500
BRE-4-2110	.2500	.781	.437	1.562	1.000	5/16-24	.337	4,500
BRE-5-2105	.3125	.875	.437	1.875	1.062	5/16-24	.337	5,500
BRE-6-2105	.3750	1.000	.500	1.938	1.250	3/8-24	.416	6,800
BRE-6-2110	.3750	1.312	.812	2.531	1.500	7/16-20	.577	12,800
BRE-7-2105	.4375	1.125	.562	2.125	1.375	7/16-20	.452	7,400
BRE-8-2105	.5000	1.312	.625	2.438	1.500	1/2-20	.515	13,500
BRE-10-2105	.6250	1.500	.750	2.625	1.625	5/8-18	.577	16,000
BRE-12-2105	.7500	1.750	.875	2.875	1.750	3/4-16	.640	22,000
BRE-14-2105	.8750	2.000	.875	3.375	1.875	7/8-14	.765	30,000
BRE-16-2105	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	59,000
BRE-20-2105	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.140	75,000
BRE-24-2105	1.5000	3.500	1.687	6.250	3.750	1 1/2-12	1.218	121,800
BRE-28-2105	* 1.7500	3.875	1.875	7.000	4.375	** 1 3/4-12	1.312	137,000
BRE-32-2105	* 2.0000	4.375	1.937	7.875	5.000	** 2-12	1.375	203,000
BRE-36-2105	* 2.2500	5.000	2.000	9.000	5.625	** 2 1/4-12	1.406	248,000
BRE-40-2105	* 2.5000	5.437	2.062	9.875	6.250	** 2 1/2-12	1.437	274,000
BRE-44-2105	* 2.7500	5.750	2.187	10.625	6.750	** 2 3/4-12	1.500	326,000

*+.002 -.0005

**UN-2A & UN-3A

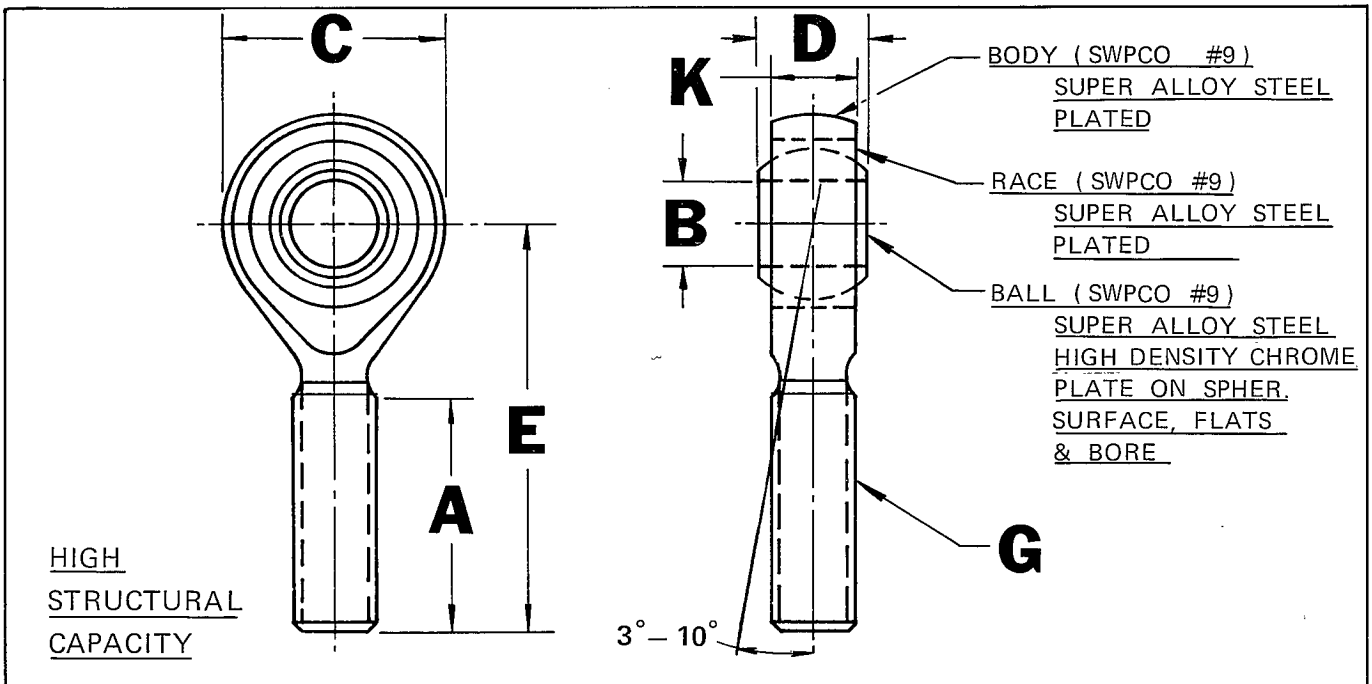
NOTES:

1. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8-2105-L.
2. LEFT-HAND THREAD PART NUMBERS FURNISHED UPON REQUEST.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED ROD END
ALL STAINLESS STEEL**



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	± BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
SWRM-4-100	.2500	.875	.437	1.875	1.250	3/8-24	.337	17,200
SWRM-5-100	.3125	1.000	.437	1.938	1.250	7/16-20	.327	22,700
SWRM-6-100	.3750	1.125	.500	2.125	1.375	1/2-20	.416	30,000
SWRM-7-100	.4375	1.312	.562	2.438	1.500	9/16-18	.452	35,200
SWRM-8-100	.5000	1.500	.625	2.625	1.625	5/8-18	.515	53,000
SWRM-10-100	.6250	1.750	.750	2.875	1.750	3/4-16	.577	64,500
SWRM-12-100	.7500	2.000	.875	3.375	1.875	7/8-14	.640	82,000
SWRM-14-100	.8750	2.562	.875	4.125	2.125	1-12	.765	114,000
SWRM-16-100	1.0000	3.000	1.375	5.000	2.875	1 1/4-12	1.015	202,000
SWRM-20-100	1.2500	3.500	1.500	6.250	3.750	1 1/2-12	1.140	229,000
SWRM-24-100	1.5000	3.750	1.687	7.000	4.375	* 1 3/4-12	1.218	275,000
SWRM-28-100	* 1.7500	4.375	1.812	7.875	5.000	* 2-12	1.312	367,000
SWRM-32-100	* 2.0000	5.000	1.750	9.000	5.625	* 2 1/4-12	1.500	558,000
SWRM-36-100	* 2.2500	5.437	1.969	9.875	6.500	* 2 1/2-12	1.678	641,000
SWRM-40-100	* 2.5000	5.750	2.187	10.625	7.000	* 2 3/4-12	1.875	685,000
SWRM-44-100	* 2.7500	6.500	2.406	11.500	7.250	* 3-12	2.062	900,000

*+.002 -.0005

* UN-2A & UN-3A

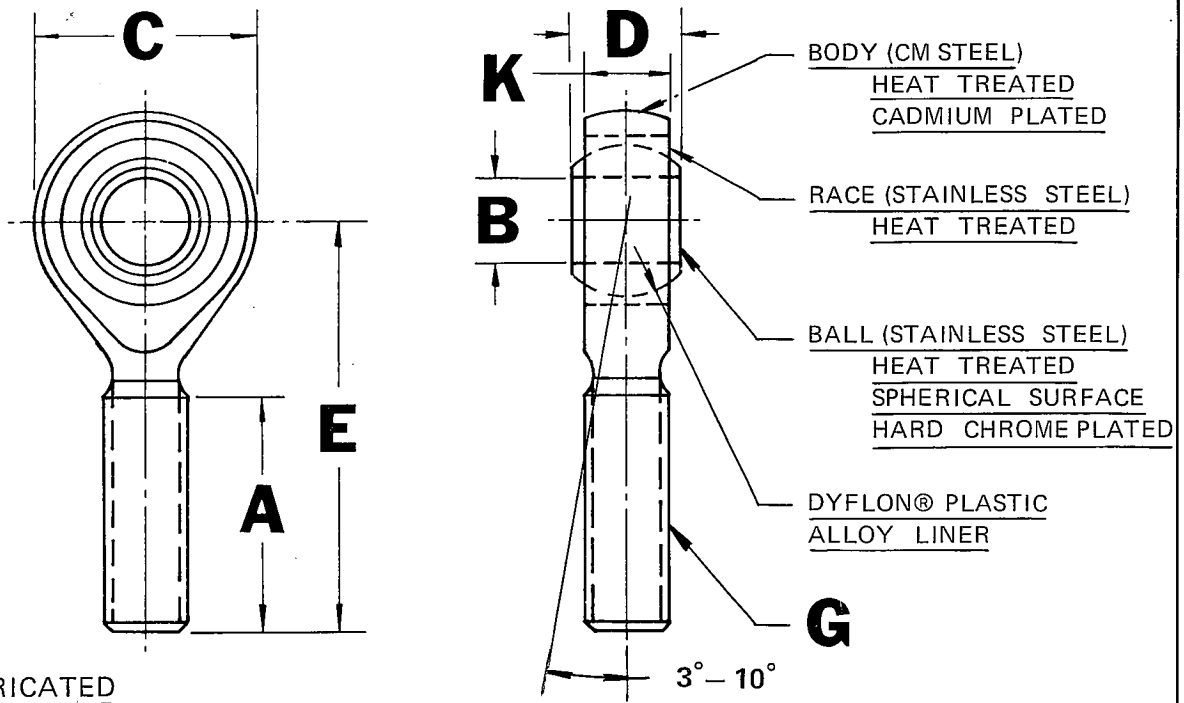
NOTES:

1. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD REQUIRED. EXAMPLE-SWRMLH-4-100.
2. LOAD RATING SHOWN FOR USE IN TEMPERATURE RANGE -420°F TO +400°F.
3. HIGH IMPACT STRENGTH FOR CYROGENIC USE.

SHORT TIME HIGH TEMPERATURE RATINGS					
TEMP.	400° F	600° F	800° F	900° F	1000° F
% ULT. LOAD	90%	86%	80%	72%	55%

"SWRM-100" SERIES





SELF LUBRICATED

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREMHD- 4	.2500	.750	.375	1.562	1.000	5/16-24	.281	5,740
DREMHD- 5	.3125	.875	.437	1.875	1.250	3/8-24	.344	8,000
DREMHD- 6	.3750	1.000	.500	1.938	1.250	7/16-20	.406	10,380
DREMHD- 7	.4375	1.125	.562	2.125	1.375	1/2-20	.437	12,150
DREMHD- 8	.5000	1.312	.625	2.438	1.500	5/8-18	.500	16,600
DREMHD-10	.6250	1.500	.750	2.625	1.625	3/4-16	.562	23,250
DREMHD-12	.7500	1.750	.875	2.875	1.750	7/8-14	.687	30,250
DREMHD-14	.8750	2.000	.875	3.375	1.875	1-12	.765	35,250
DREMHD-16	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	62,500
DREMHD-20	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	78,800
DREMHD-24	1.5000	3.500	1.687	6.250	3.750	* 1 3/4-12	1.312	125,000
DREMHD-28	* 1.7500	3.875	1.812	7.000	4.375	* 2-12	1.375	142,000
DREMHD-32	* 2.0000	4.375	1.937	7.875	5.000	* 2 1/4-12	1.406	193,000
DREMHD-36	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/2-12	1.437	245,000
DREMHD-40	* 2.5000	5.437	2.062	9.875	6.250	* 2 3/4-12	1.500	281,000
DREMHD-44	* 2.7500	5.750	2.187	10.625	6.750	* 3-12	1.562	318,000

NOTES:

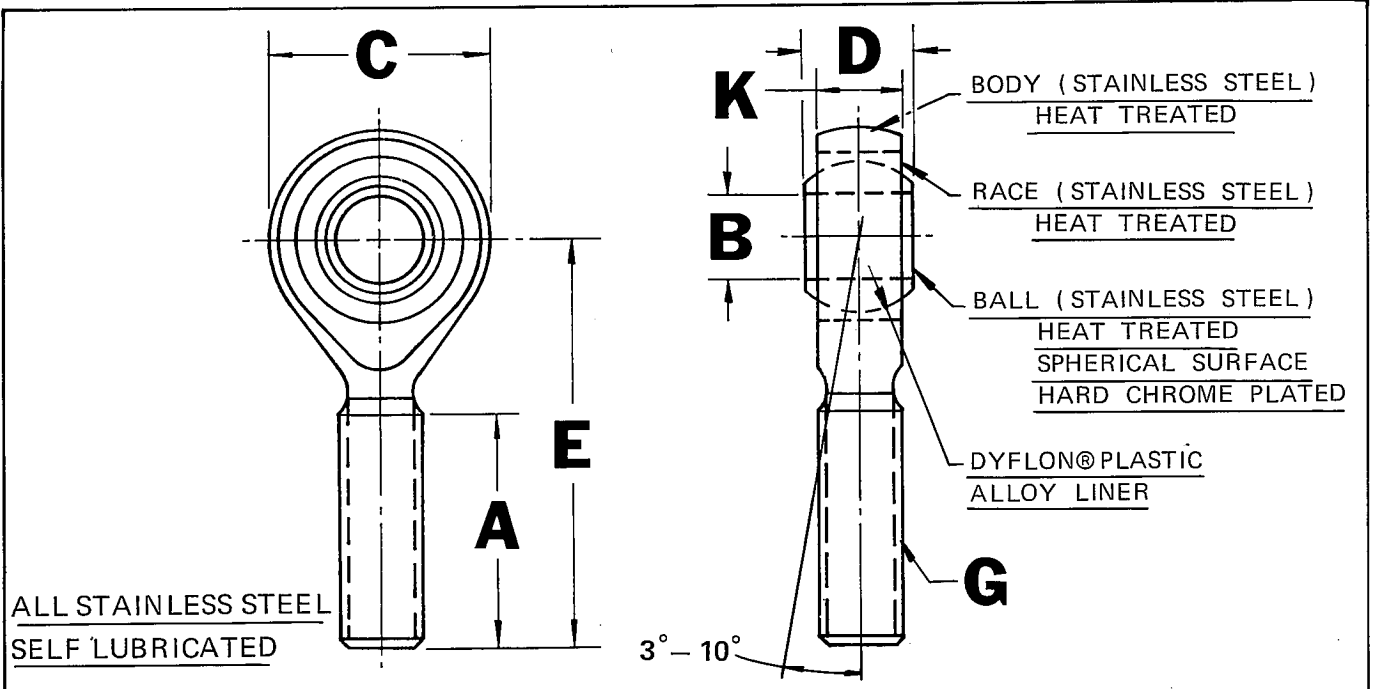
*+.0015 -.0005

* UN-2A & UN-3A

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREMHDLH-8.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED
HEAVY DUTY
LOW-FRICTION ROD END**





ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	♠ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREMHD- 4-065	.2500	.750	.375	1.562	1.000	5/16-24	.281	5,740
DREMHD- 5-065	.3125	.875	.437	1.875	1.250	3/8-24	.344	8,000
DREMHD- 6-065	.3750	1.000	.500	1.938	1.250	7/16-20	.406	10,380
DREMHD- 7-065	.4375	1.125	.562	2.125	1.375	1/2-20	.437	12,150
DREMHD- 8-065	.5000	1.312	.625	2.438	1.500	5/8-18	.500	16,600
DREMHD-10-065	.6250	1.500	.750	2.625	1.625	3/4-16	.562	23,250
DREMHD-12-065	.7500	1.750	.875	2.875	1.750	7/8-14	.687	30,250
DREMHD-14-065	.8750	2.000	.875	3.375	1.875	1-12	.765	35,250
DREMHD-16-065	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	62,500
DREMHD-20-065	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	78,800
DREMHD-24-065	1.5000	3.500	1.687	6.250	3.750	* 1 3/4-12	1.312	125,000
DREMHD-28-065	* 1.7500	3.875	1.812	7.000	4.375	* 2-12	1.375	142,000
DREMHD-32-065	* 2.0000	4.375	1.937	7.875	5.000	* 2 1/4-12	1.406	193,000
DREMHD-36-065	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/2-12	1.437	245,000
DREMHD-40-065	* 2.5000	5.437	2.062	9.875	6.250	* 2 3/4-12	1.500	281,000
DREMHD-44-065	* 2.7500	5.750	2.187	10.625	6.750	* 3-12	1.562	318,000

* +.0015 - .0005

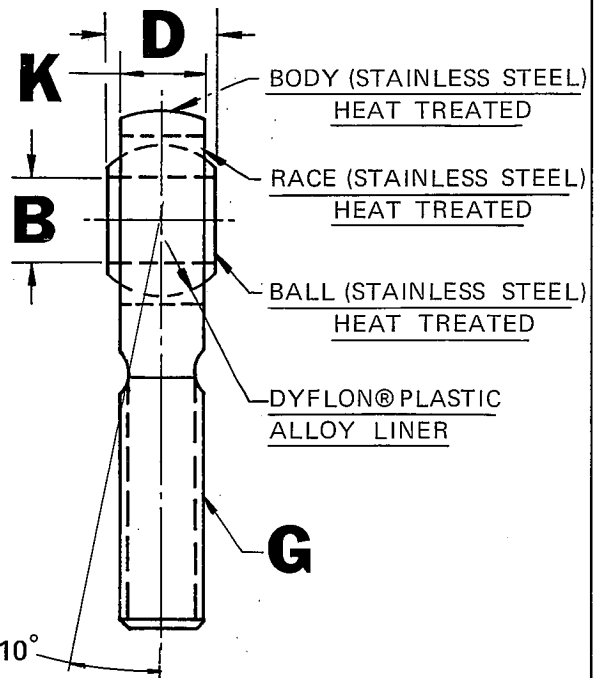
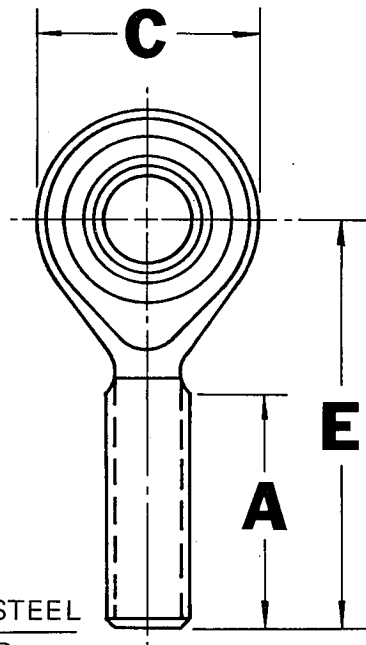
* UN-2A & UN-3A

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREMHDLH-8-065.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**HEAVY DUTY
EXTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END**





ALL STAINLESS STEEL
SELF LUBRICATED
SALT WATER IMMERSION

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	☉ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREMHD- 4-365	.2500	.750	.375	1.562	1.000	5/16 -24	.281	5,740
DREMHD- 5-365	.3125	.875	.437	1.875	1.250	3/8 -24	.344	8,000
DREMHD- 6-365	.3750	1.000	.500	1.938	1.250	7/16 -20	.406	10,380
DREMHD- 7-365	.4375	1.125	.562	2.125	1.375	1/2 -20	.437	12,150
DREMHD- 8-365	.5000	1.312	.625	2.438	1.500	5/8 -18	.500	16,600
DREMHD-10-365	.6250	1.500	.750	2.625	1.625	3/4 -16	.562	23,250
DREMHD-12-365	.7500	1.750	.875	2.875	1.750	7/8 -14	.687	30,250
DREMHD-14-365	.8750	2.000	.875	3.375	1.875	1 -12	.765	35,250
DREMHD-16-365	1.0000	2.750	1.375	4.125	2.125	1 1/4 -12	1.015	62,500
DREMHD-20-365	1.2500	2.875	1.500	5.000	3.125	1 1/2 -12	1.250	78,800
DREMHD-24-365	1.5000	3.500	1.687	6.250	3.750	* 1 3/4 -12	1.312	125,000
DREMHD-28-365	* 1.7500	3.875	1.812	7.000	4.375	* 2 -12	1.375	142,000
DREMHD-32-365	* 2.0000	4.375	1.937	7.875	5.000	* 2 1/4 -12	1.406	193,000
DREMHD-36-365	* 2.2500	5.000	2.000	9.000	5.625	* 2 1/2 -12	1.437	245,000
DREMHD-40-365	* 2.5000	5.437	2.062	9.875	6.250	* 2 3/4 -12	1.500	281,000
DREMHD-44-365	* 2.7500	5.750	2.187	10.625	6.750	* 3 -12	1.562	318,000

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREMHDLH-8-365.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

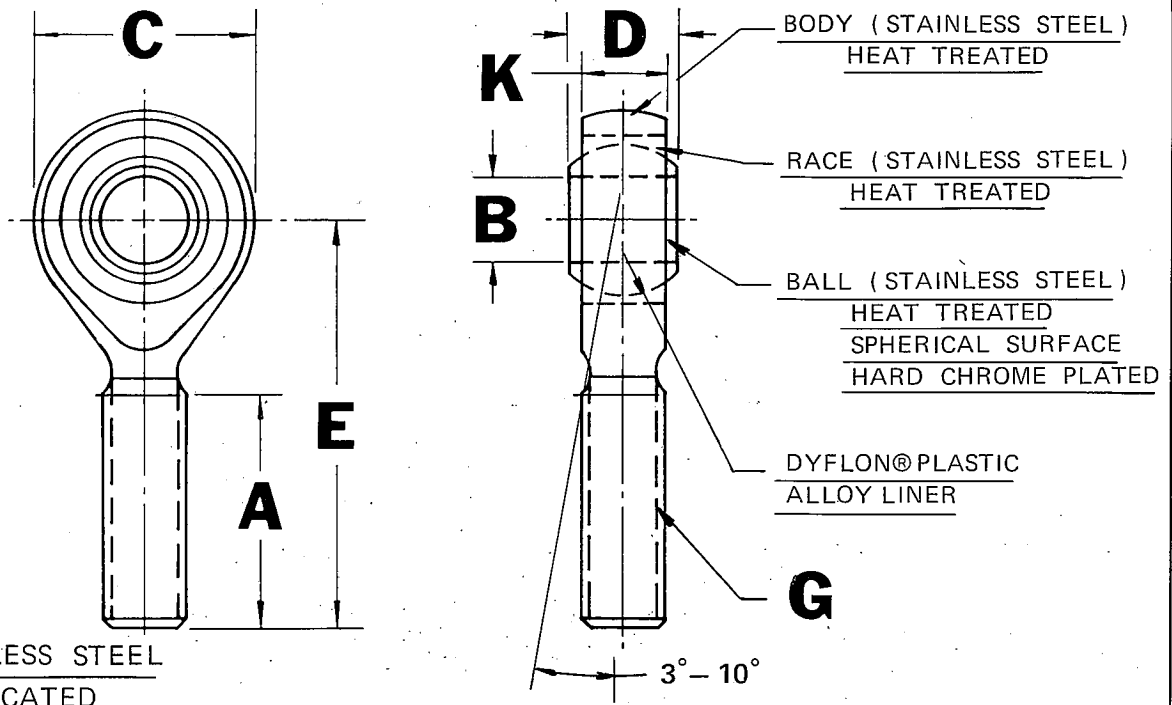
* +.0015 - .0005

* UN-2A & UN-3A

HEAVY DUTY
EXTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END



U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. No. 640,638.



ALL STAINLESS STEEL
SELF LUBRICATED

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.002	Ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREM- 4-080	.2500	.812	.344	1.718	1.000	5/16-24	.250	6,100
DREM- 5-080	.3125	1.000	.437	2.062	1.250	3/8-24	.327	12,900
DREM- 6-080	.3750	1.125	.500	2.312	1.375	7/16-20	.375	15,200
DREM- 7-080	.4375	1.218	.562	2.500	1.562	9/16-18	.452	19,200
DREM- 8-080	.5000	1.437	.688	2.875	1.687	5/8-18	.500	29,000
DREM-10-080	.6250	1.750	.812	3.312	2.000	3/4-16	.625	41,200
DREM-12-080	.7500	2.000	1.000	3.500	2.312	7/8-14	.750	56,000
DREM-14-080	.8750	2.562	1.125	4.500	2.500	1-12	.875	91,000
DREM-16-080	1.0000	3.000	1.375	5.000	2.812	1 1/4-12	1.000	117,000
DREM-20-080	1.2500	3.625	1.625	5.500	3.000	1 1/2-12	1.125	168,000
DREM-24-080	1.5000	3.750	1.687	6.000	3.375	** 1 3/4-12	1.218	178,000
DREM-28-080	* 1.7500	4.375	1.812	7.000	4.125	** 2-12	1.312	250,000
DREM-32-080	* 2.0000	5.000	1.750	8.125	4.750	** 2 1/4-12	1.500	380,000
DREM-36-080	* 2.2500	5.437	1.969	9.250	5.875	** 2 1/2-12	1.687	440,000
DREM-40-080	* 2.5000	5.750	2.187	10.625	7.000	** 2 3/4-12	1.875	470,000
DREM-44-080	* 2.7500	6.500	2.406	11.500	7.250	** 3-12	2.062	610,000

NOTES:

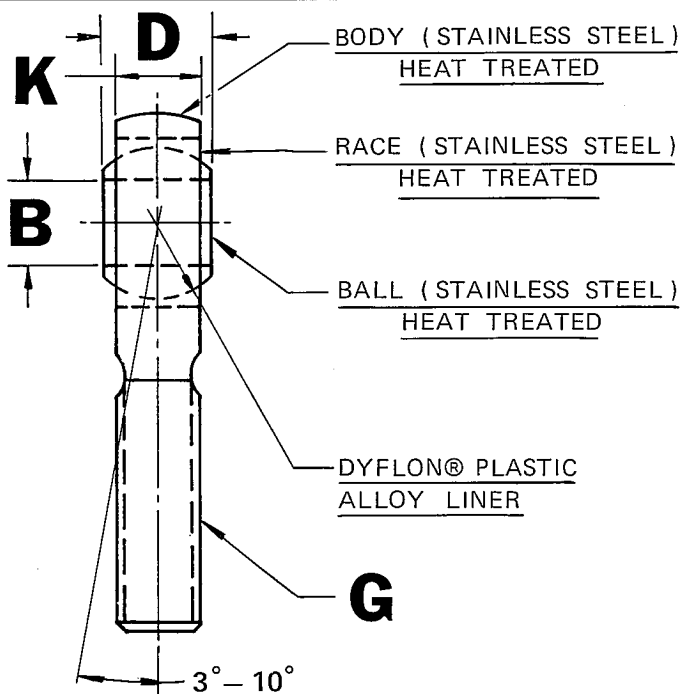
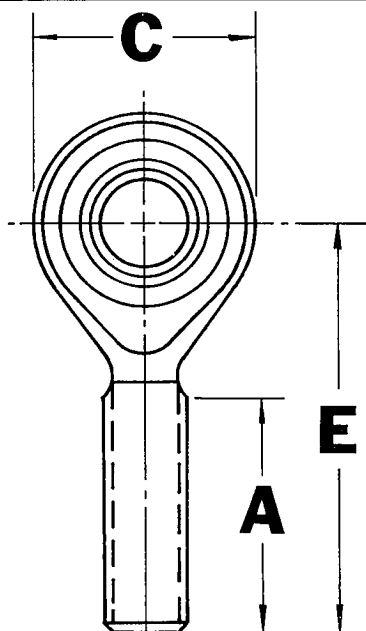
* +.0015 —.0005

* UN-2A & UN-3A

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE—DREMLH-8-080.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTRA HEAVY DUTY
EXTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END**





ALL STAINLESS STEEL
 SELF LUBRICATED
 SALT WATER IMMERSION

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.002	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
DREM- 4-380	.2500	.812	.344	1.718	1.000	5/16-24	.250	6,100
DREM- 5-380	.3125	1.000	.437	2.062	1.250	3/8-24	.327	12,900
DREM- 6-380	.3750	1.125	.500	2.312	1.375	7/16-20	.375	15,200
DREM- 7-380	.4375	1.218	.562	2.500	1.562	9/16-18	.452	19,200
DREM- 8-380	.5000	1.437	.688	2.875	1.687	5/8-18	.500	29,000
DREM-10-380	.6250	1.750	.812	3.312	2.000	3/4-16	.625	41,200
DREM-12-380	.7500	2.000	1.000	3.500	2.312	7/8-14	.750	56,000
DREM-14-380	.8750	2.562	1.125	4.500	2.500	1-12	.875	91,000
DREM-16-380	1.0000	3.000	1.375	5.000	2.812	1 1/4-12	1.000	117,000
DREM-20-380	1.2500	3.625	1.625	5.500	3.000	1 1/2-12	1.125	168,000
DREM-24-380	1.5000	3.750	1.687	6.000	3.375	* 1 3/4-12	1.218	178,000
DREM-28-380	* 1.7500	4.375	1.812	7.000	4.125	* 2-12	1.312	250,000
DREM-32-380	* 2.0000	5.000	1.750	8.125	4.750	* 2 1/4-12	1.500	380,000
DREM-36-380	* 2.2500	5.437	1.969	9.250	5.875	* 2 1/2-12	1.687	440,000
DREM-40-380	* 2.5000	5.750	2.187	10.625	7.000	* 2 3/4-12	1.875	470,000
DREM-44-380	* 2.7500	6.500	2.406	11.500	7.250	* 3-12	2.062	610,000

NOTES:

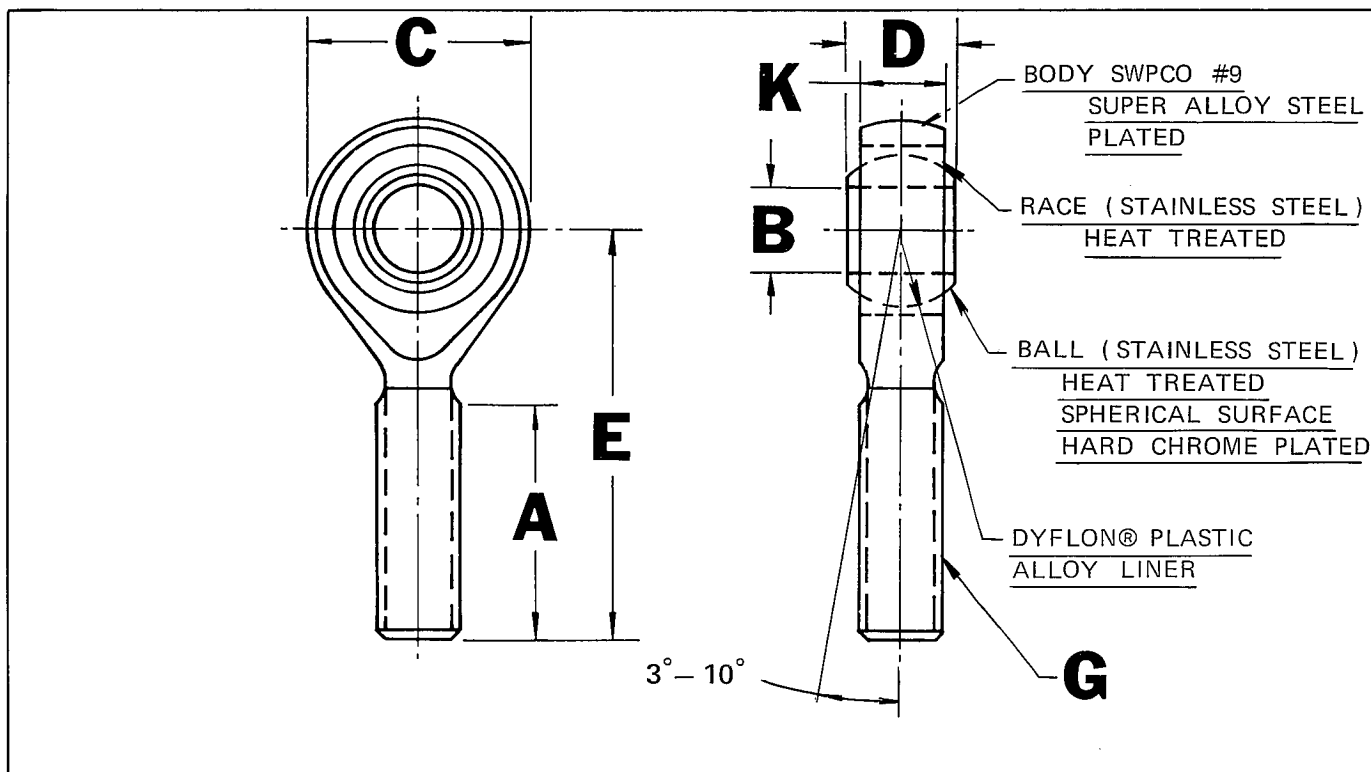
* +.0015 -.0005

* UN-2A & UN-3A

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREMLH-8-380.
4. ALL ROD ENDS ARE 100% INSPECTED.

**EXTRA HEAVY DUTY
 EXTERNALLY THREADED
 ALL STAINLESS STEEL
 LOW-FRICTION ROD END**





ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
SWDRM-4-260	.2500	.875	.437	1.875	1.250	3/8-24	.337	13,000
SWDRM-5-260	.3125	1.000	.437	1.938	1.250	7/16-20	.327	17,300
SWDRM-6-260	.3750	1.125	.500	2.125	1.375	1/2-20	.416	25,000
SWDRM-7-260	.4375	1.312	.562	2.438	1.500	9/16-18	.452	30,900
SWDRM-8-260	.5000	1.500	.625	2.625	1.625	5/8-18	.515	39,600
SWDRM-10-260	.6250	1.750	.750	2.875	1.750	3/4-16	.577	54,800
SWDRM-12-260	.7500	2.000	.875	3.375	1.875	7/8-14	.640	70,500
SWDRM-14-260	.8750	2.562	.875	4.125	2.125	1-12	.765	92,600
SWDRM-16-260	1.0000	3.000	1.375	5.000	2.875	1 1/4-12	1.015	168,300
SWDRM-20-260	1.2500	3.500	1.500	6.250	3.750	1 1/2-12	1.140	210,000
SWDRM-24-260	1.5000	3.750	1.687	7.000	4.375	* 1 3/4-12	1.218	245,000
SWDRM-28-260	* 1.7500	4.375	1.812	7.875	5.000	* 2-12	1.312	300,000
SWDRM-32-260	* 2.0000	5.000	1.750	9.000	5.625	* 2 1/4-12	1.500	380,000
SWDRM-36-260	* 2.2500	5.437	1.969	9.875	6.500	* 2 1/2-12	1.678	500,000
SWDRM-40-260	* 2.5000	5.750	2.187	10.625	7.000	* 2 3/4-12	1.875	620,000
SWDRM-44-260	* 2.7500	6.500	2.406	11.500	7.250	* 3-12	2.062	750,000

NOTES:

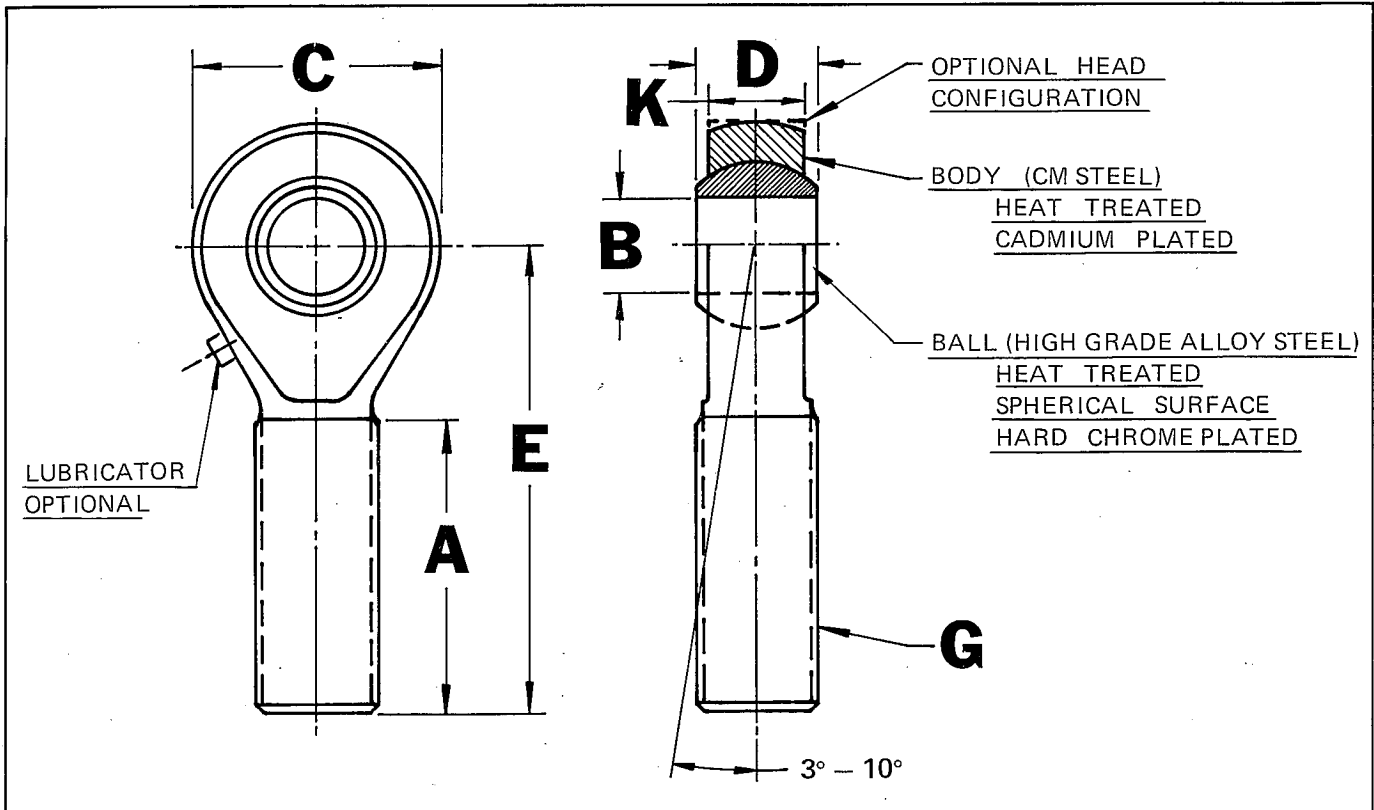
1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT HAND THREAD REQUIRED.
EXAMPLE--SWDRMLH-8-260.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

* +.0015 -.0005

* UN-2A & UN-3A

EXTERNALLY THREADED
LOW FRICTION ROD END
"SWDRM" SERIES





ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	¢ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
2 BREM- 4	.2500	.750	.375	1.562	1.000	5/16-24	.281	7,000
2 BREM- 5	.3125	.875	.437	1.875	1.250	3/8-24	.344	8,300
2 BREM- 6	.3750	1.000	.500	1.938	1.250	7/16-20	.406	11,250
2 BREM- 7	.4375	1.125	.562	2.125	1.375	1/2-20	.437	14,200
2 BREM- 8	.5000	1.312	.625	2.438	1.500	5/8-18	.500	22,400
2 BREM-10	.6250	1.500	.750	2.625	1.625	3/4-16	.562	26,000
2 BREM-12	.7500	1.750	.875	2.875	1.750	7/8-14	.687	33,300
2 BREM-14	.8750	2.000	.875	3.375	1.875	1-12	.765	49,200
2 BREM-16	1.0000	2.750	1.375	4.125	2.125	1 1/4 - 12	1.015	77,500
2 BREM-20	1.2500	2.875	1.500	5.000	3.125	1 1/2 - 12	1.250	101,000
2 BREM-24	1.5000	3.375	1.750	5.500	3.375	* 1 3/4 - 12	1.375	130,000
2 BREM-28	* 1.7500	3.875	1.875	6.250	3.875	* 2 - 12	1.437	166,000
2 BREM-32	* 2.0000	4.500	2.000	7.500	5.000	* 2 1/4 - 12	1.562	224,000
2 BREM-36	* 2.2500	5.000	2.062	8.500	5.375	* 2 1/2 - 12	1.593	261,000
2 BREM-40	* 2.5000	5.437	2.187	9.250	6.000	* 2 3/4 - 12	1.687	309,000
2 BREM-44	* 2.7500	6.000	2.312	10.500	6.750	* 3 - 12	1.812	390,000

NOTES:

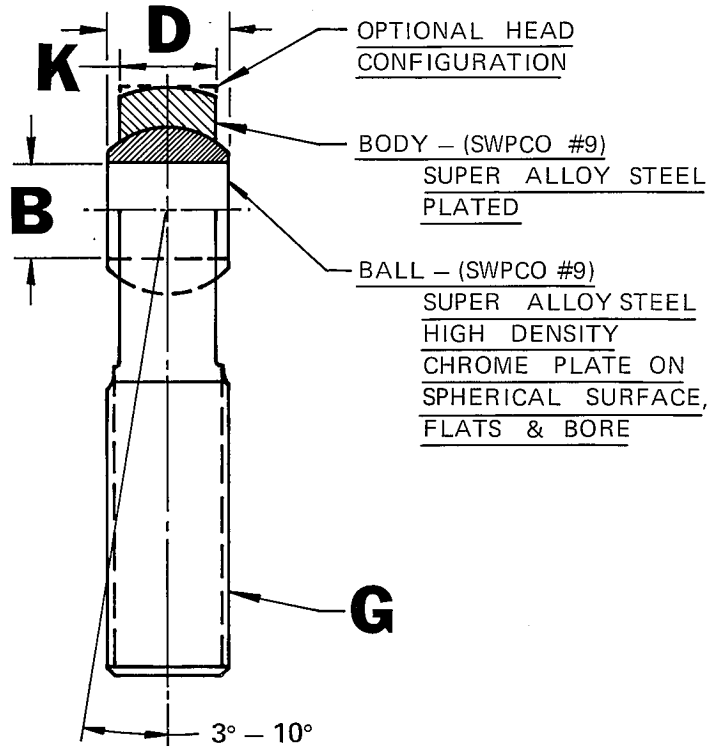
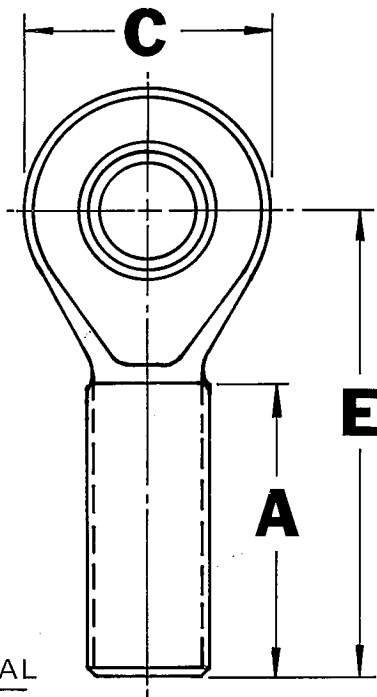
*+.002 -.0005

* UN-2A & UN-3A

1. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - 2 BREM-10-L.
2. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - 2 BREMLH-10.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED
(2 PIECE) HEAVY DUTY
ROD END BEARING**





**HIGH
STRUCTURAL
CAPACITY**

ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	☉ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
SWRM-4	.2500	.750	.375	1.625	1.000	3/8-24	.281	17,200
SWRM-5	.3125	.875	.437	1.968	1.250	7/16-20	.344	22,700
SWRM-6	.3750	1.000	.500	2.031	1.250	1/2-20	.406	30,000
SWRM-7	.4375	1.125	.562	2.281	1.375	9/16-18	.437	35,200
SWRM-8	.5000	1.312	.625	2.500	1.500	5/8-18	.500	53,000
SWRM-10	.6250	1.500	.750	2.625	1.625	3/4-16	.562	64,500
SWRM-12	.7500	1.750	.875	2.900	1.750	7/8-14	.687	82,000
SWRM-14	.8750	2.000	.875	3.400	1.875	1-12	.765	114,000
SWRM-16	1.0000	2.750	1.375	4.250	2.125	1 1/4-12	1.015	202,000
SWRM-20	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	229,000
SWRM-20-001	1.2500	2.875	1.500	5.000	3.125	1 3/8-12	1.125	209,000
SWRM-20-002	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.125	209,000
SWRM-24	1.5000	3.375	1.750	5.250	3.125	* 1 3/4-16	1.375	275,000
SWRM-28	* 1.7500	3.875	1.875	6.250	3.875	* 2-12	1.437	367,000
SWRM-32	* 2.0000	4.500	2.000	7.500	5.000	* 2 1/4-12	1.562	450,000

NOTES:

*+.002 -.0005

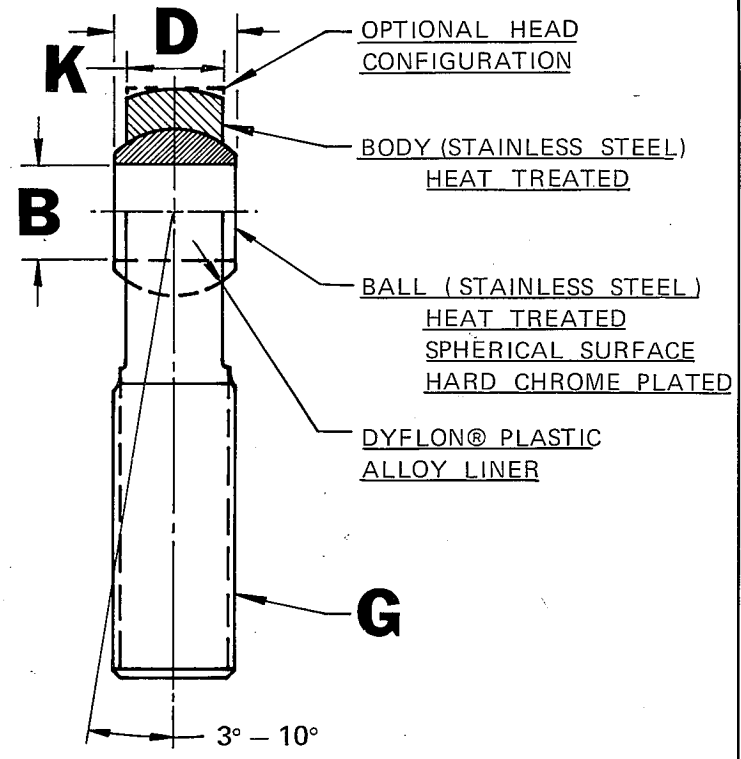
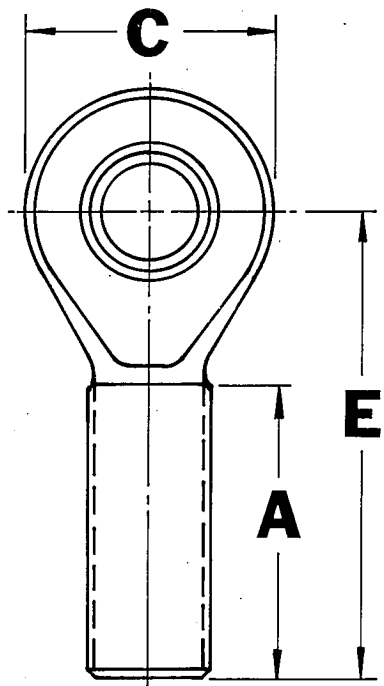
* UN-2A & UN-3A

1. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - SWRMLH-20
2. LOAD RATINGS SHOWN FOR USE IN TEMPERATURE RANGE - 420° F TO +400° F.
3. HIGH IMPACT STRENGTH FOR CRYOGENIC USE.

SHORT TIME HIGH TEMPERATURE RATINGS					
TEMP.	400° F	600° F	800° F	900° F	1000° F
% ULT. LOAD	90%	86%	80%	72%	55%

"SWRM" SERIES





ALL STAINLESS STEEL
SELF LUBRICATED

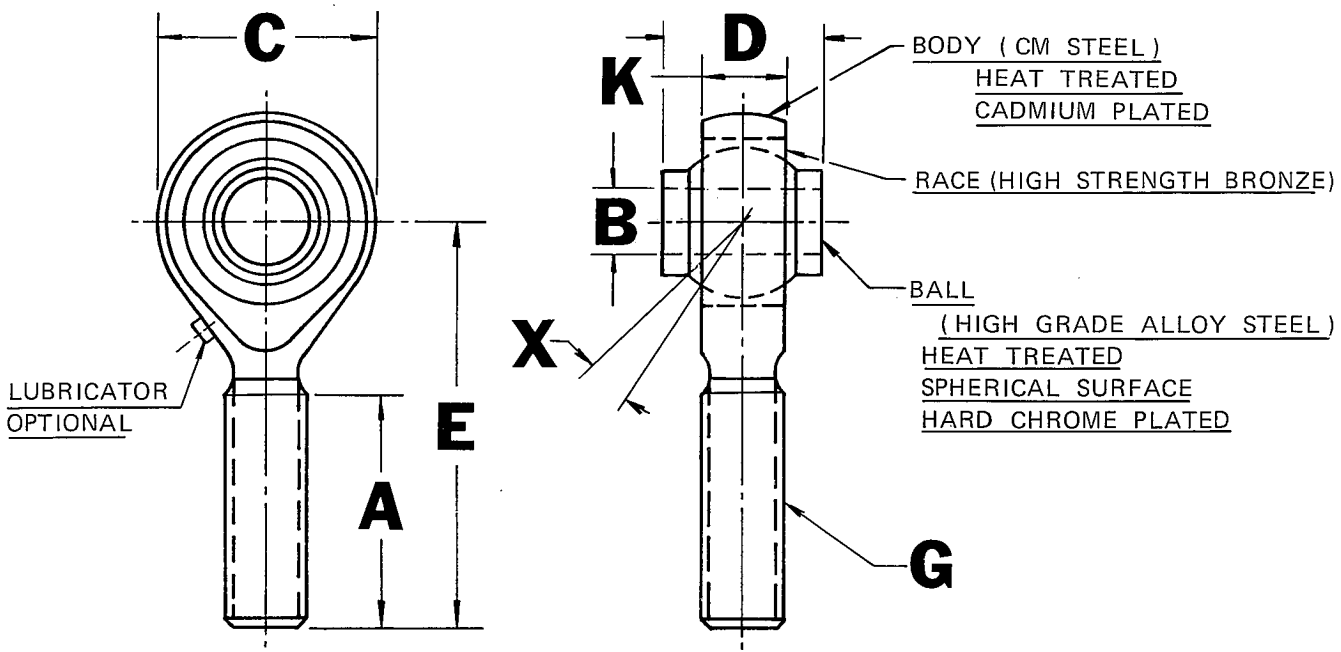
ROD END PART NO.	B	C	D	E	A	G	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	⊥ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	
2 DREM- 3	.1900	.750	.375	1.562	1.000	10-32	.281	3,000
2 DREM- 4	.2500	.750	.375	1.562	1.000	5/16-24	.281	7,000
2 DREM- 5	.3125	.875	.437	1.875	1.250	3/8-24	.344	8,300
2 DREM- 6	.3750	1.000	.500	1.938	1.250	7/16-20	.406	11,250
2 DREM- 7	.4375	1.125	.562	2.125	1.375	1/2-20	.437	14,200
2 DREM- 8	.5000	1.312	.625	2.438	1.500	5/8-18	.500	22,400
2 DREM-10	.6250	1.500	.750	2.625	1.625	3/4-16	.562	26,000
2 DREM-12	.7500	1.750	.875	2.875	1.750	7/8-14	.687	33,300
2 DREM-14	.8750	2.000	.875	3.375	1.875	1-12	.765	49,200
2 DREM-16	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.015	77,500
2 DREM-20	1.2500	2.875	1.500	5.000	3.125	1 1/2-12	1.250	101,000
2 DREM-24	1.5000	3.375	1.750	5.500	3.375	* 1 3/4-12	1.375	130,000
2 DREM-28	* 1.7500	3.875	1.875	6.250	3.875	* 2-12	1.437	166,000
2 DREM-32	* 2.0000	4.500	2.000	7.500	5.000	* 2 1/4-12	1.562	224,000
2 DREM-36	* 2.2500	5.000	2.062	8.500	5.375	* 2 1/2-12	1.593	261,000
2 DREM-40	* 2.5000	5.437	2.187	9.250	6.000	* 2 3/4-12	1.687	309,000
2 DREM-44	* 2.7500	6.000	2.312	10.500	6.750	* 3-12	1.812	390,000

- NOTES:** *+.0015 -.0005
1. DYFLON® BEARING.
 2. LUBRICATION NOT REQUIRED.
 3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - 2 DREMLH-8
 4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

* UN-2A & UN-3A

**EXTERNALLY THREADED
(2 PIECE) HEAVY DUTY
LOW FRICTION ROD END**





ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MISALIGNMENT ANGLE	
BRE-3690	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	4,400
BRE-3700	.1900	.750	.500	1.500	1.000	5/16-24	.220	15°	2,100
BRE-4870	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	3,400
BRE-5370	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	5,200
BRE-5380	.3125	.875	.625	1.875	1.062	5/16-24	.265	20°	3,570
BRE-6455	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	5,300
BRE-7285	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	8,500
BRE-8410	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	11,700
BRE-10325	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17° 30'	20,000
BRE-12295	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	23,500
BRE-14160	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	24,800
BRE-16230	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	29,000
BRE-20810	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	77,000
BRE-24810	1.5000	3.750	2.250	6.500	3.750	1 1/2-12	1.170	21°	110,000
BRE-28810	1.7500	4.500	2.875	8.000	5.000	* 2-12	1.250	23°	150,000

NOTES:

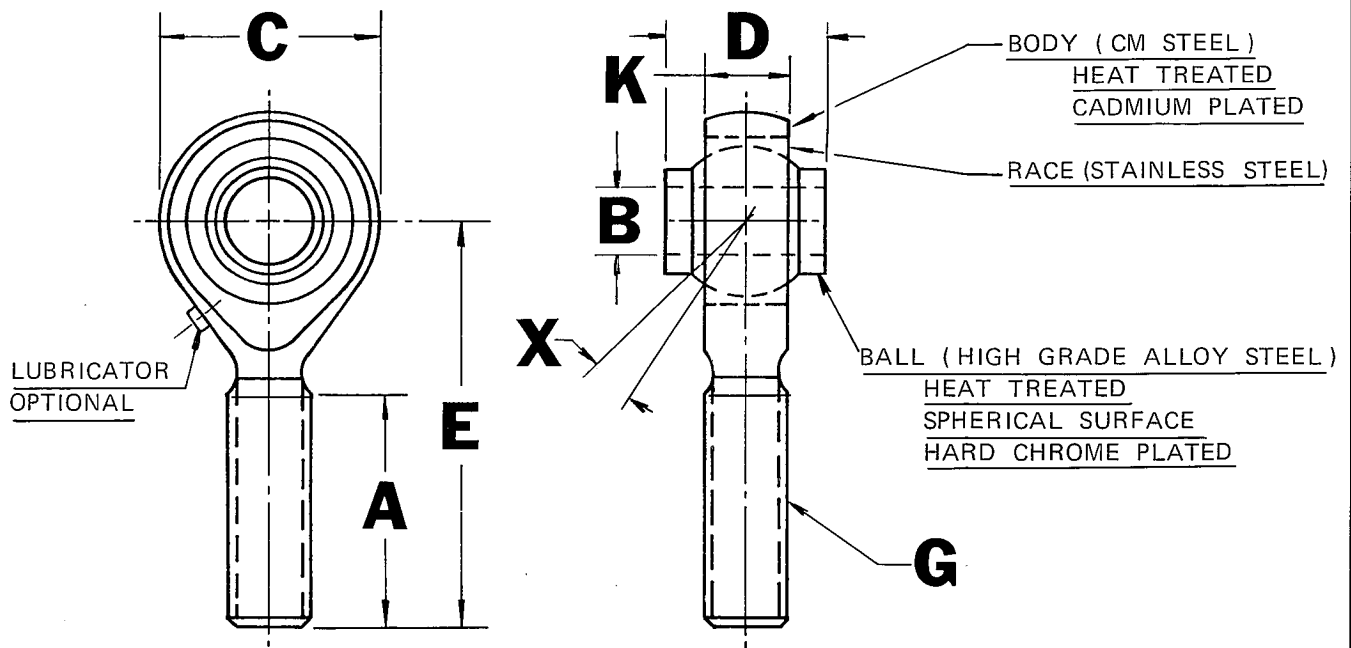
1. ALL THESE ROD ENDS CONTAIN A HIGH-STRENGTH BRONZE RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - BRE-8410-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

* UN-2A & UN-3A



**EXTERNALLY THREADED ROD END
HIGH MISALIGNMENT "L" SERIES**

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	± BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
BRE-3695	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	4,400
BRE-3705	.1900	.750	.500	1.500	1.000	5/16-24	.220	15°	2,100
BRE-4875	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	3,400
BRE-5375	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	5,200
BRE-5385	.3125	.875	.625	1.875	1.062	5/16-24	.265	20°	3,570
BRE-6460	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	5,300
BRE-7290	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	8,500
BRE-8415	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	11,700
BRE-10330	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17° 30'	20,000
BRE-12300	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	23,500
BRE-14165	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	24,800
BRE-16235	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	29,000
BRE-20815	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	77,000
BRE-24815	1.5000	3.750	2.250	6.500	3.750	1 1/2-12	1.170	21°	110,000
BRE-28815	1.7500	4.500	2.875	8.000	5.000	* 2-12	1.250	23°	150,000

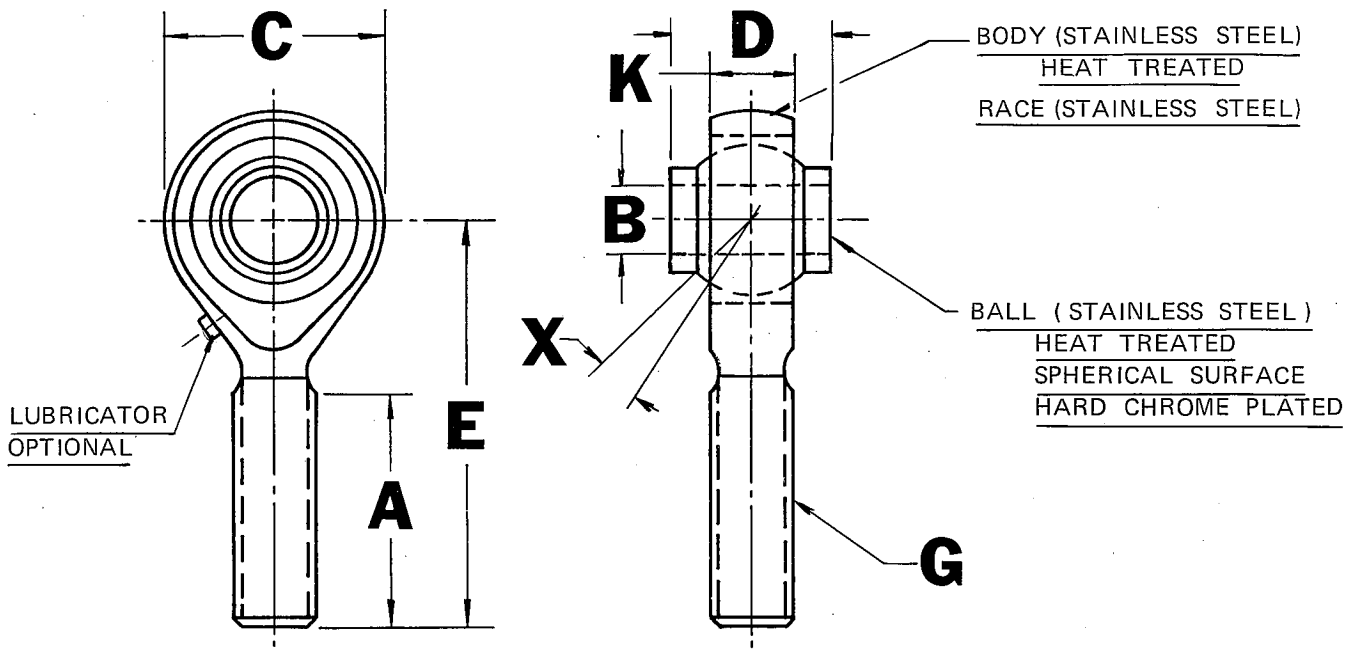
* UN-2A & UN-3A

NOTES:

1. ALL THESE ROD ENDS CONTAIN A STAINLESS STEEL RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - BRE-8415-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**EXTERNALLY THREADED ROD END
HIGH MISALIGNMENT "SS" SERIES**





ALL STAINLESS STEEL
HIGH TEMPERATURE

ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
BRE-3155	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	3,950
BRE-4375	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	5,500
BRE-5875	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	5,900
BRE-6140	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	6,000
BRE-7720	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	9,350
BRE-8530	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	13,150
BRE-10850	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17° 30'	16,700
BRE-12750	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	24,200
BRE-14600	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	25,200
BRE-16600	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	46,300
BRE-20600	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	51,300
BRE-24600	1.5000	3.750	2.250	6.500	3.750	1 1/2-12	1.170	21°	59,000
BRE-28600	1.7500	4.500	2.875	8.000	5.000	* 2-12	1.250	23°	80,000

NOTES:

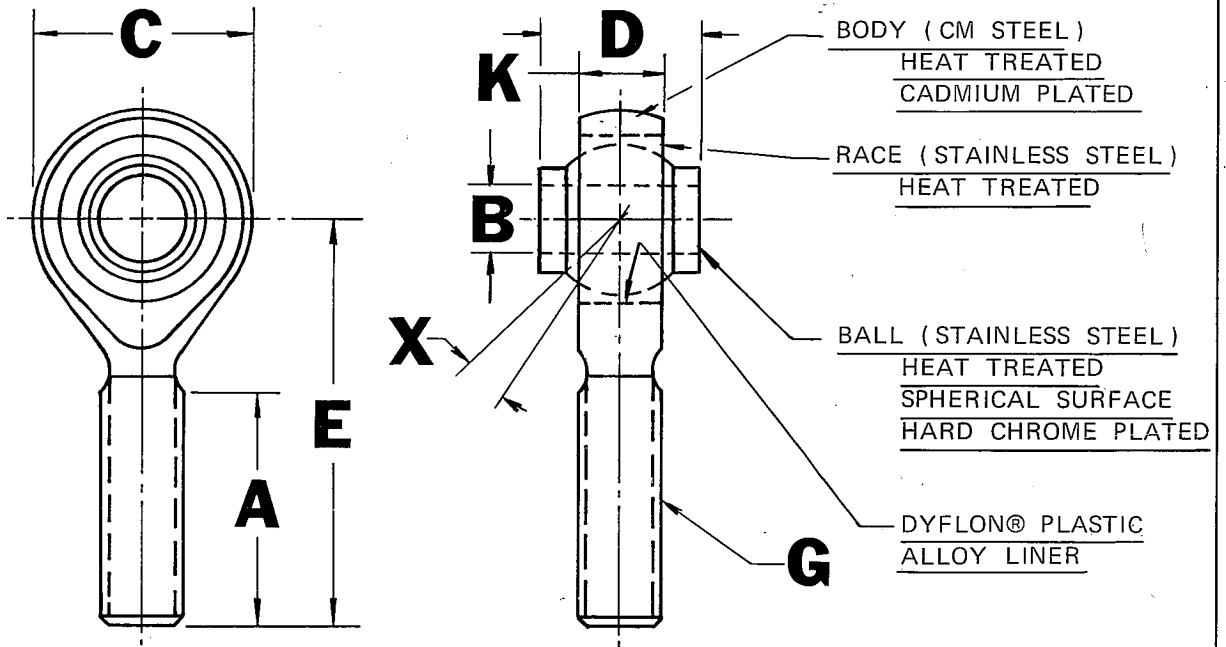
- LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
- SHORT TIME LOADING AT 1000° F.
- LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
- ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
- ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - BRE-8530-L.

* UN-2A & UN-3A

EXTERNALLY THREADED
HIGH MISALIGNMENT
"HIGH TEMPERATURE" ROD END



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



SELF LUBRICATED

ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	± BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
DREM- 3-050	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	3,400
DREM- 4-050	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	3,400
DREM- 5-050	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	5,200
DREM- 6-050	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	5,300
DREM- 7-050	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	8,500
DREM- 8-050	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	11,700
DREM-10-050	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17° 30'	20,000
DREM-12-050	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	23,500
DREM-14-050	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	24,800
DREM-16-050	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	29,000
DREM-20-050	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	77,000
DREM-24-050	1.5000	3.750	2.250	6.500	3.750	1 1/2-12	1.170	21°	110,000
DREM-28-050	1.7500	4.500	2.875	8.000	5.000	* 2-12	1.250	23°	150,000

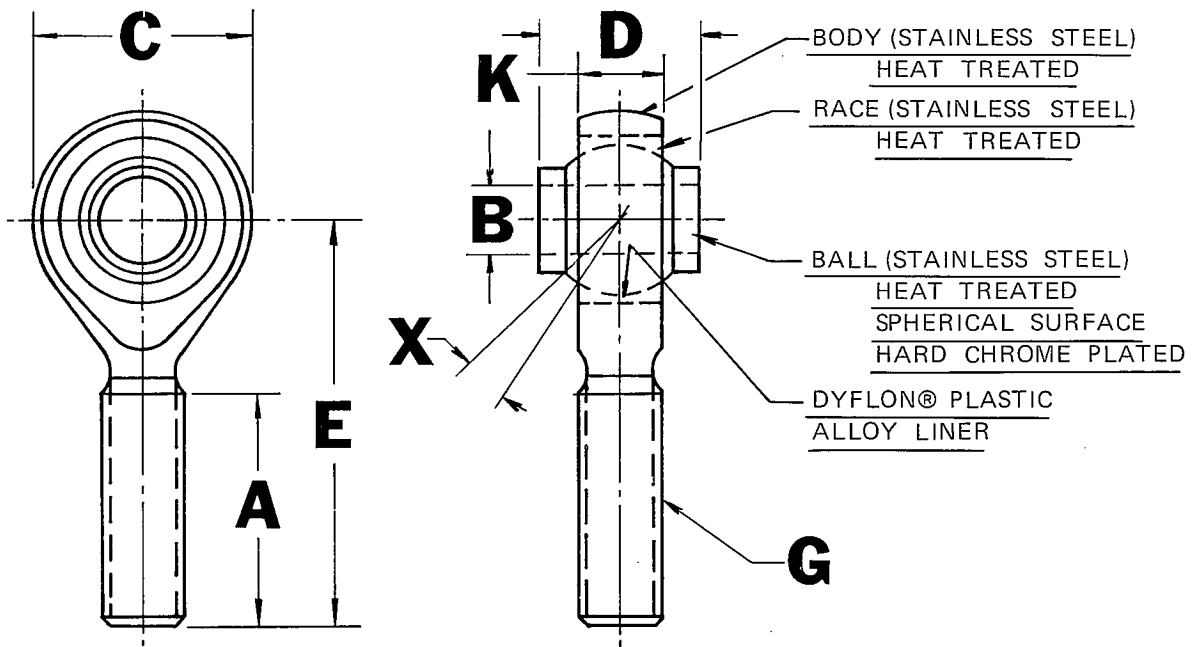
NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - DREMLH-6-050.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

* UN-2A & UN-3A

EXTERNALLY THREADED
HIGH MISALIGNMENT
"LOW FRICTION" ROD END





ALL STAINLESS STEEL
SELF LUBRICATED

ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
DREM- 3-085	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	3,400
DREM- 4-085	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	3,400
DREM- 5-085	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	5,200
DREM- 6-085	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	5,300
DREM- 7-085	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	8,500
DREM- 8-085	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	11,700
DREM-10-085	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17° 30'	20,000
DREM-12-085	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	23,500
DREM-14-085	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	24,800
DREM-16-085	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	29,000
DREM-20-085	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	77,000
DREM-24-085	1.5000	3.750	2.250	6.500	3.750	1 1/2-12	1.170	21°	110,000
DREM-28-085	1.7500	4.500	2.875	8.000	5.000	* 2-12	1.250	23°	150,000

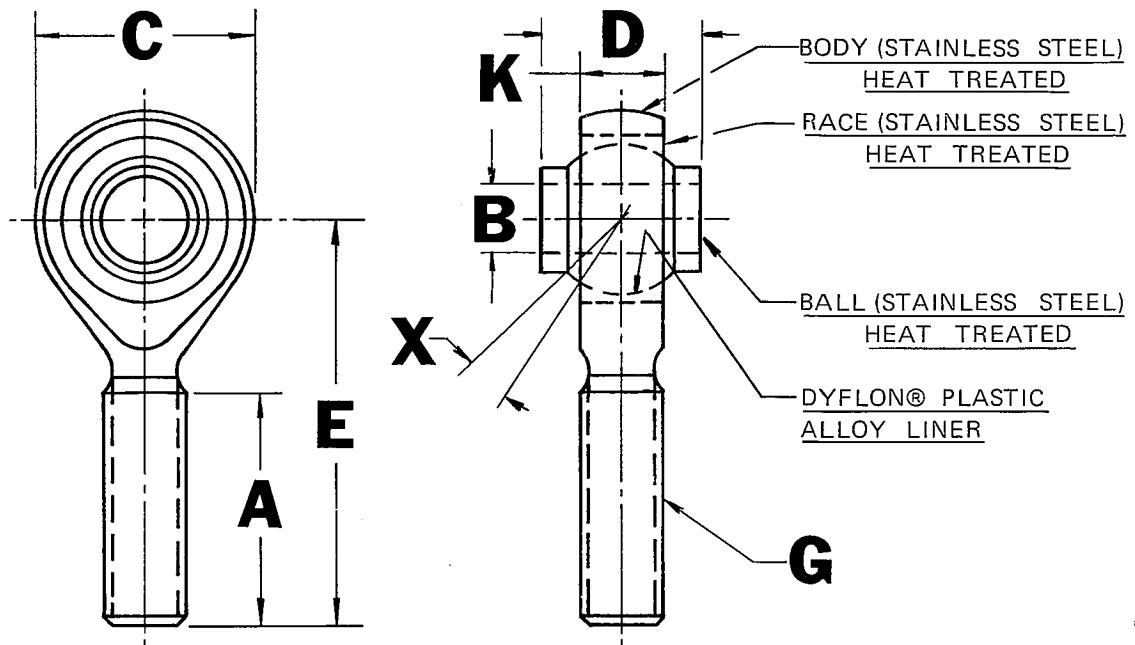
NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - DREMLH-6-085.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

* UN-2A & UN-3A

EXTERNALLY THREADED
HIGH MISALIGNMENT "LOW FRICTION" ROD END
ALL STAINLESS STEEL





ALL STAINLESS STEEL
 SELF LUBRICATED
 SALT WATER IMMERSION

ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	φ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
DREM- 3-385	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	3,400
DREM- 4-385	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	3,400
DREM- 5-385	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	5,200
DREM- 6-385	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	5,300
DREM- 7-385	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	8,500
DREM- 8-385	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	11,700
DREM-10-385	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17° 30'	20,000
DREM-12-385	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	23,500
DREM-14-385	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	24,800
DREM-16-385	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	29,000
DREM-20-385	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	77,000
DREM-24-385	1.5000	3.750	2.250	6.500	3.750	1 1/2-12	1.170	21°	110,000
DREM-28-385	1.7500	4.500	2.875	8.000	5.000	* 2-12	1.250	23°	150,000

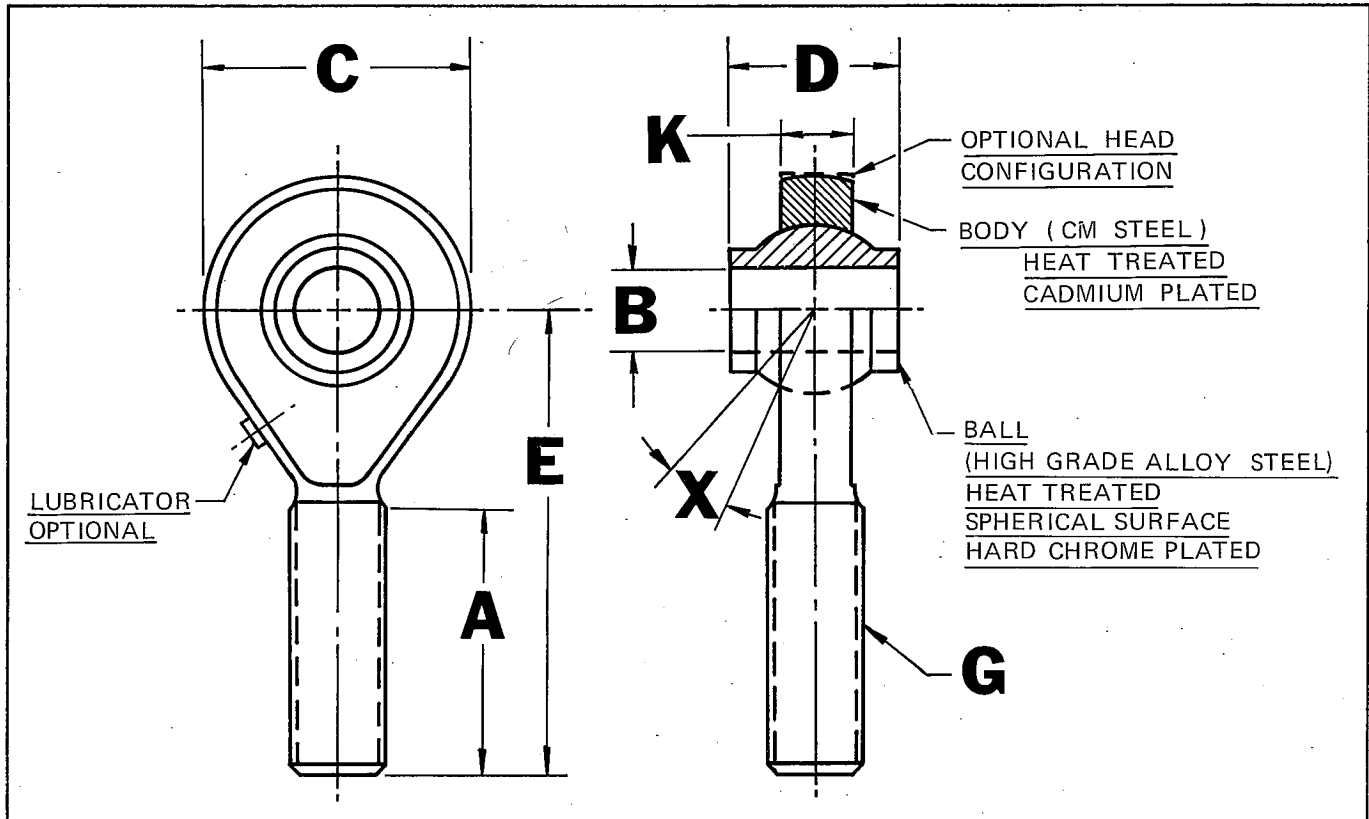
NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - DREMLH-6-385.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

* UN-2A & UN-3A

**EXTERNALLY THREADED
 HIGH MISALIGNMENT "LOW FRICTION" ROD END
 ALL STAINLESS STEEL**





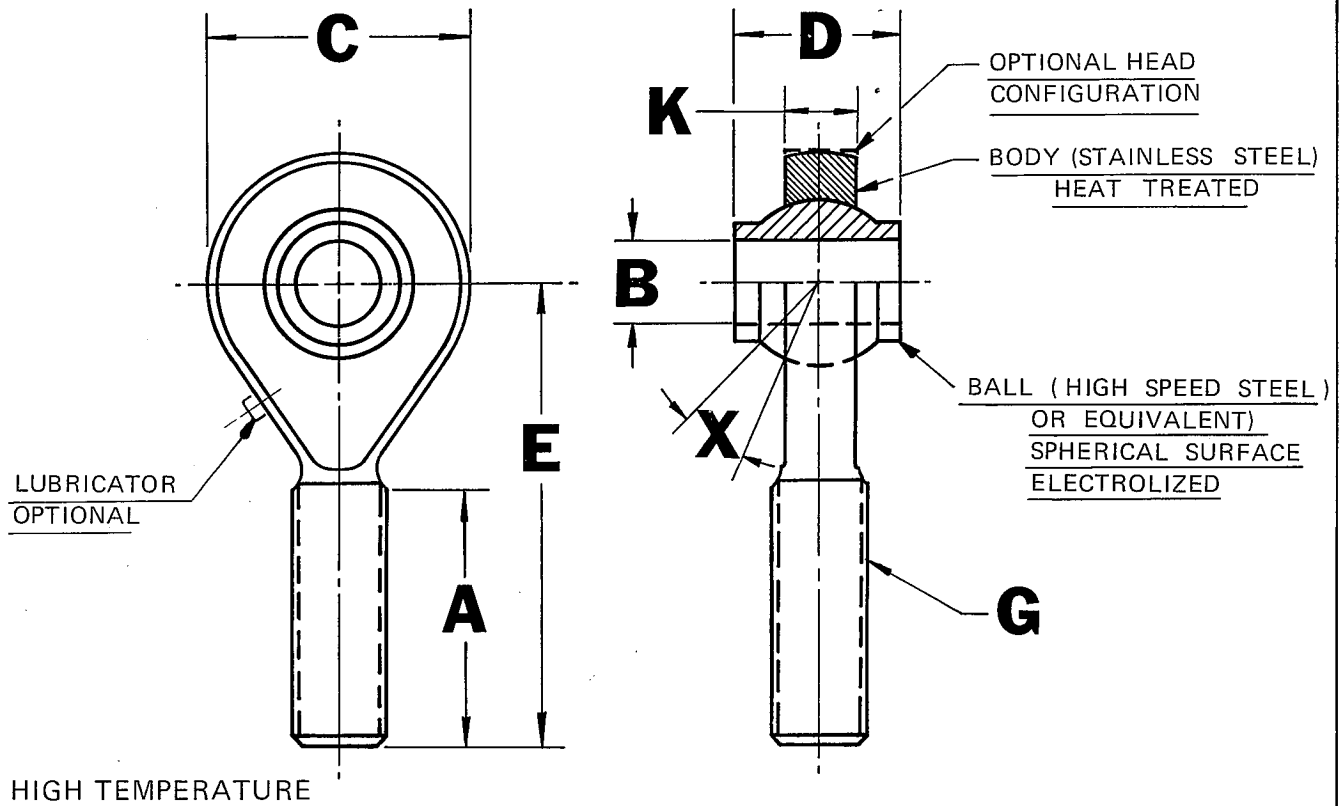
ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	♣BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
2BREM- 3-005	.1900	.781	.560	1.562	1.000	5/16 -24	.337	20°	6,300
2BREM- 4-005	.2500	1.000	.593	1.938	1.250	3/8 -24	.265	24°	9,800
2BREM- 5-005	.3125	1.125	.813	2.125	1.375	7/16 -20	.355	21°	11,200
2BREM- 6-005	.3750	1.125	.813	2.125	1.375	7/16 -20	.355	23°	11,200
2BREM- 7-005	.4375	1.312	.875	2.438	1.500	1/2 -20	.355	22°	14,200
2BREM- 8-005	.5000	1.500	.937	2.625	1.625	5/8 -18	.411	20°	19,000
2BREM-10-005	.6250	1.750	1.200	2.875	1.750	3/4 -16	.577	17° 30'	27,000
2BREM-12-005	.7500	2.000	1.280	3.375	1.875	7/8 -14	.630	19°	37,000
2BREM-14-005	.8750	2.200	1.400	3.750	2.000	7/8 -14	.635	18°	39,800
2BREM-16-005	1.0000	2.750	1.875	4.125	2.125	1 1/4 -12	.845	21°	69,900
2BREM-20-005	1.2500	3.125	1.875	5.000	2.875	1 1/4 -12	1.015	20°	84,200

NOTES:

1. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-2BREMLH-10-005
2. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
3. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED.
EXAMPLE-2BREM-10-005-L

**EXTERNALLY THREADED
HIGH MISALIGNMENT
(2 PIECE) HEAVY DUTY ROD END**





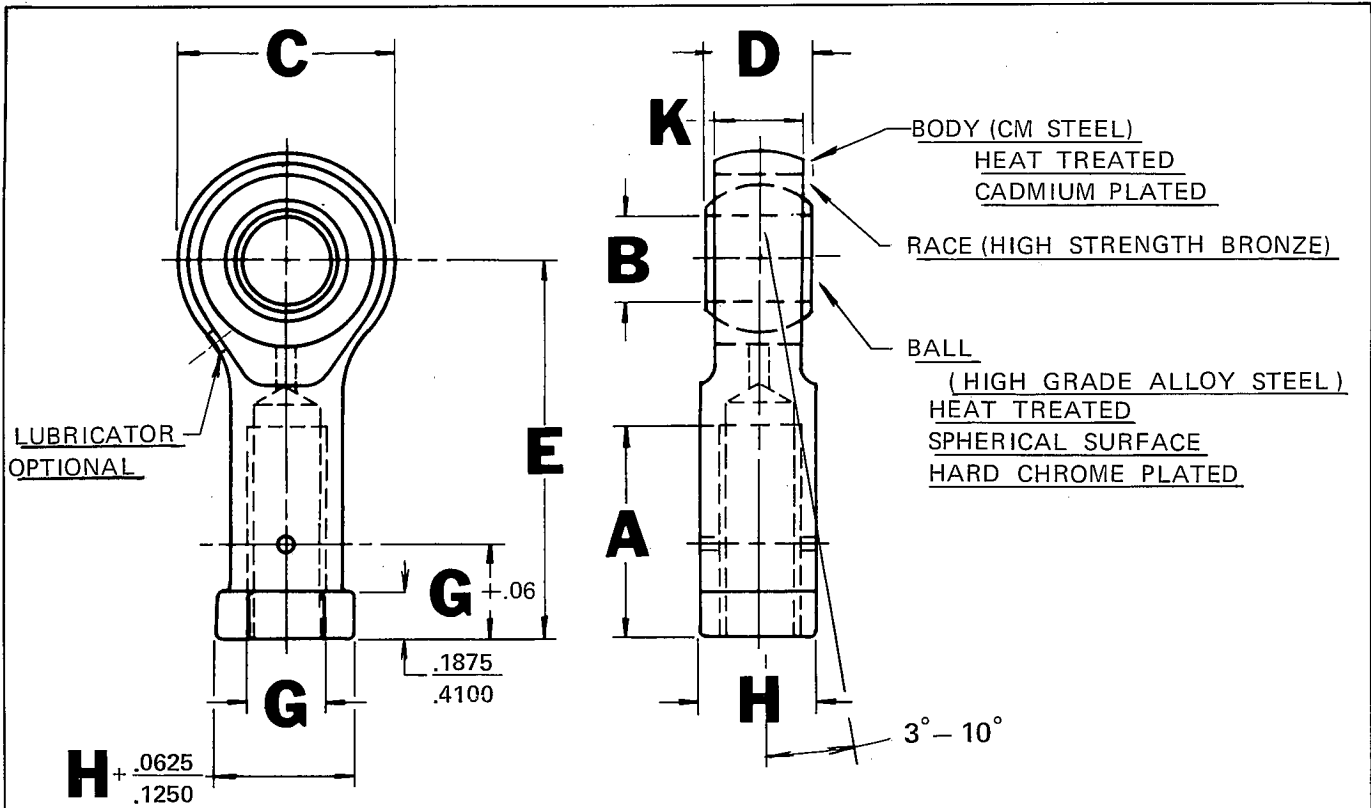
ROD END PART NO.	B	C	D	E	A	G	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.	
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	⌀ BALL TO END +.010 -.010	THREAD LENGTH +.062 -.031	THREAD SIZE UNF-3A & UNF-2A	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	800°F	1000°F
	2 BREM- 3A-005	.1900	.781	.560	1.562	1.000	5/16-24	.337	20°	5100
2 BREM- 4A-005	.2500	1.000	.593	1.938	1.250	3/8-24	.265	24°	7900	7400
2 BREM- 5A-005	.3125	1.125	.813	2.125	1.375	7/16-20	.355	21°	9000	8400
2 BREM- 6A-005	.3750	1.125	.813	2.125	1.375	7/16-20	.355	23°	9000	8400
2 BREM- 7A-005	.4375	1.312	.875	2.438	1.500	1/2-20	.355	22°	11500	10700
2 BREM- 8A-005	.5000	1.500	.937	2.625	1.625	5/8-18	.411	20°	15300	14300
2 BREM-10A-005	.6250	1.750	1.200	2.875	1.750	3/4-16	.577	17°30'	21800	20400
2 BREM-12A-005	.7500	2.000	1.280	3.375	1.875	7/8-14	.630	19°	29900	28000
2 BREM-14A-005	.8750	2.200	1.400	3.750	2.000	7/8-14	.635	18°	32100	30000
2 BREM-16A-005	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	.845	21°	56500	52800
2 BREM-20A-005	1.2500	3.125	1.875	5.000	2.875	1 1/4-12	1.015	20°	68100	63700

NOTES:

1. THESE ROD ENDS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000°F.
3. SHORT TIME LOADING AT 1000°F.
4. ADD "LH" TO PART NUMBER IF LEFT-HANDED THREAD IS REQUIRED.
EXAMPLE-2 BREMLH-10A-005.
5. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
6. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-2 BREM-5A-005-L.

**EXTERNALLY THREADED
HIGH MISALIGNMENT (2 PIECE) HEAVY DUTY
"HIGH TEMPERATURE" ROD END**





ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ø BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
BRE-3040	.1900	.781	.437	1.375	.750	5/16-24	.437	.337	2,100
BRE-3050	.1900	.781	.437	1.000	.375	1/4-28	.375	.337	2,100
BRE-3060	.1900	.781	.437	1.375	.750	1/4-28	.375	.337	2,100
BRE-3120	.1900	.875	.500	1.625	.750	5/16-24	.500	.327	4,400
BRE-4050	.2500	.781	.437	1.375	.750	1/4-28	.375	.337	3,400
BRE-4070	.2500	.781	.437	1.469	.750	5/16-24	.437	.337	3,400
BRE-4135	.2500	.875	.500	1.625	.750	5/16-24	.500	.327	4,400
BRE-4170	.2500	.750	.375	1.312	.750	1/4-28	.375	.296	3,400
BRE-5020	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	4,300
BRE-6070	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	5,200
BRE-7025	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	6,500
BRE-8130	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	11,000
BRE-10020	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	16,000
BRE-12060	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	22,000
BRE-14580	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	24,700
BRE-16620	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	35,700
BRE-20330	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	48,400

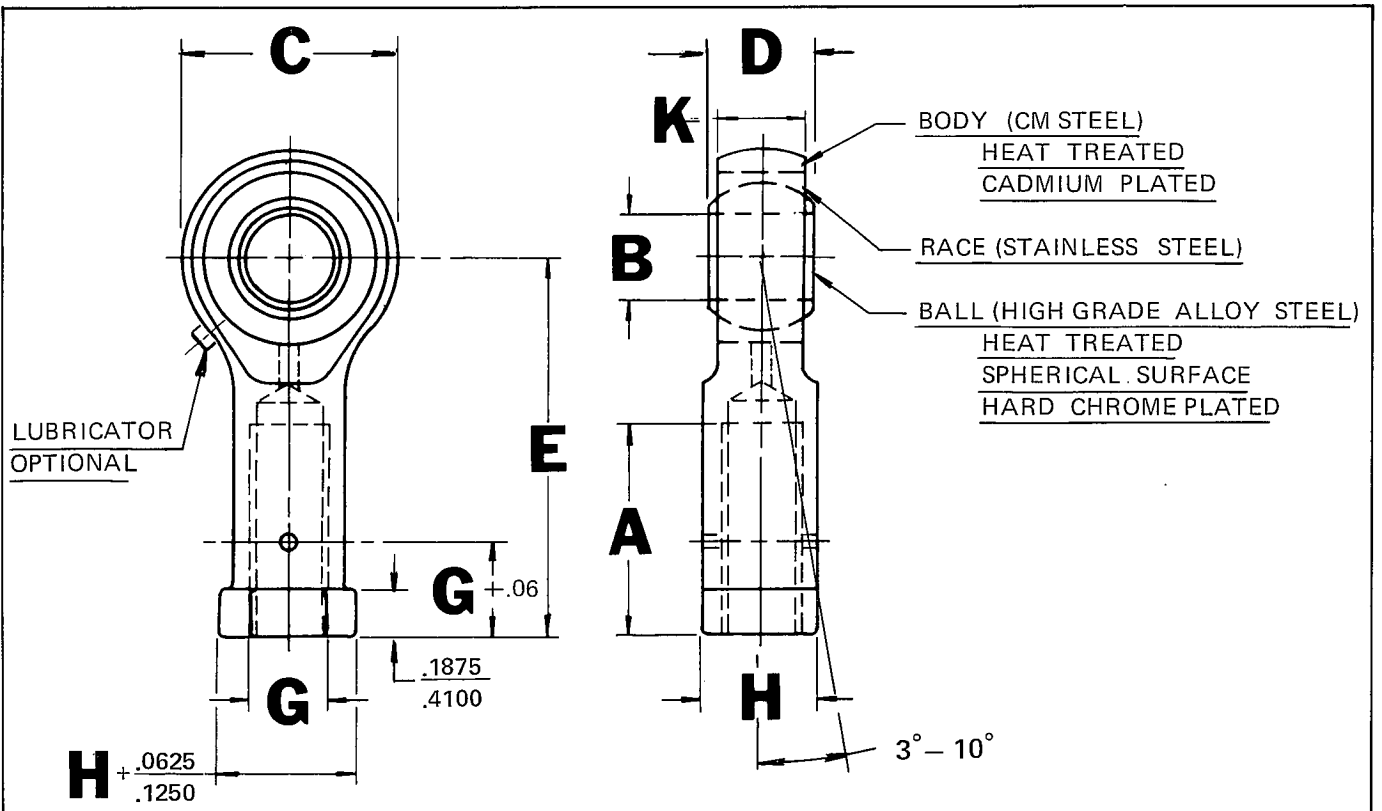
NOTES:

1. ALL THESE ROD ENDS CONTAIN A HIGH-STRENGTH BRONZE RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8130-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED ROD END
"L" SERIES**



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	⌀ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
BRE-3055	.1900	.781	.437	1.000	.375	1/4-28	.375	.337	2,100
BRE-3065	.1900	.781	.437	1.375	.750	1/4-28	.375	.337	2,100
BRE-3115	.1900	.875	.500	1.625	.750	5/16-24	.500	.327	4,400
BRE-3070	.1900	.781	.437	1.375	.750	5/16-24	.437	.337	2,100
BRE-4075	.2500	.781	.437	1.375	.750	1/4-28	.375	.337	3,400
BRE-4110	.2500	.875	.500	1.625	.750	5/16-24	.500	.327	4,400
BRE-4130	.2500	.781	.437	1.469	.750	5/16-24	.437	.337	3,400
BRE-4180	.2500	.750	.375	1.312	.750	1/4-28	.375	.296	3,400
BRE-5030	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	4,300
BRE-6080	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	5,200
BRE-7035	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	6,500
BRE-8135	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	11,000
BRE-10045	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	16,000
BRE-12070	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	22,000
BRE-14575	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	24,700
BRE-16635	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	35,700
BRE-20335	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	48,400

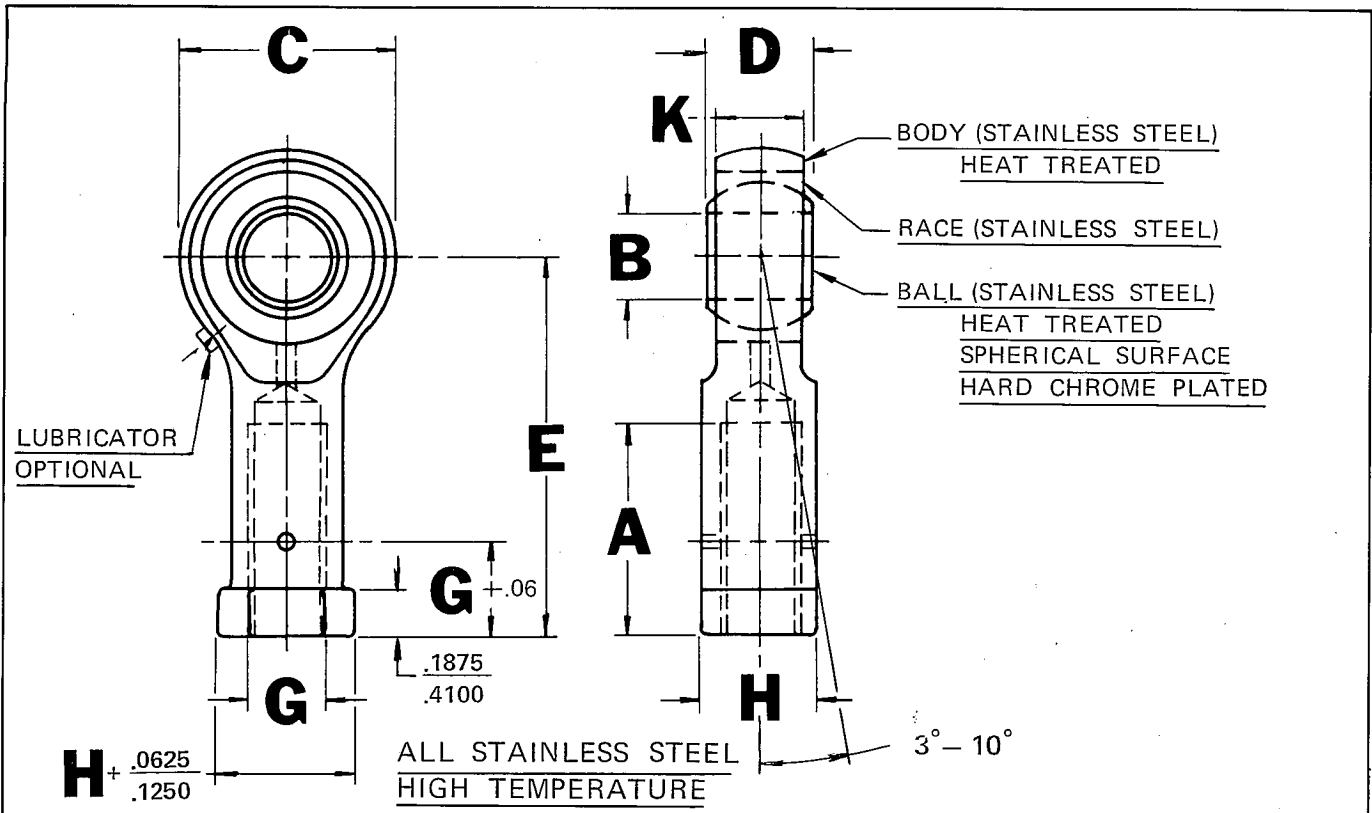
NOTES:

1. ALL THESE ROD ENDS CONTAIN A STAINLESS STEEL RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED, EXAMPLE-BRE-8135-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED ROD END
"SS" SERIES**



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	☩ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
BRE-3760	.1900	.781	.437	1.000	.375	1/4-28	.375	.337	1,600
BRE-3770	.1900	.781	.437	1.375	.750	1/4-28	.375	.337	1,600
BRE-3775	.1900	.875	.500	1.625	.750	5/16-24	.500	.327	1,600
BRE-3780	.1900	.781	.437	1.375	.750	5/16-24	.437	.337	3,300
BRE-4990	.2500	.781	.437	1.375	.750	1/4-28	.375	.337	2,550
BRE-4995	.2500	.875	.500	1.625	.750	5/16-24	.500	.327	2,550
BRE-4005	.2500	.781	.437	1.469	.750	5/16-24	.437	.337	3,300
BRE-4015	.2500	.750	.375	1.312	.750	1/4-28	.375	.296	2,550
BRE-5480	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	3,300
BRE-6685	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	3,900
BRE-7340	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	4,900
BRE-8510	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	8,250
BRE-10430	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	12,000
BRE-12365	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	16,500
BRE-14585	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	19,700
BRE-16625	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	28,400
BRE-20385	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	38,500

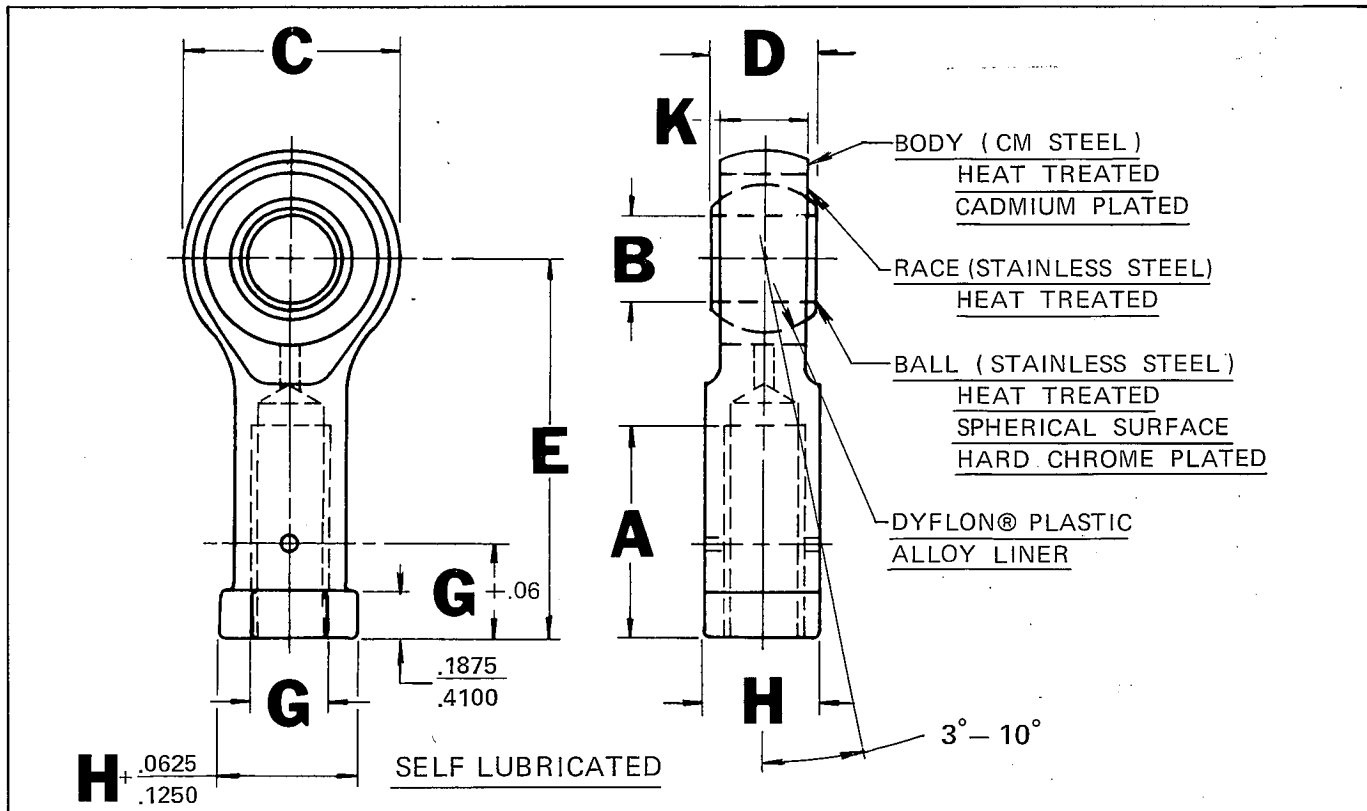
NOTES:

1. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
2. SHORT TIME LOADING 15 MINUTES MAXIMUM AT 1000° F.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
5. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8510-L.

**INTERNALLY THREADED
HIGH TEMPERATURE ROD END**



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



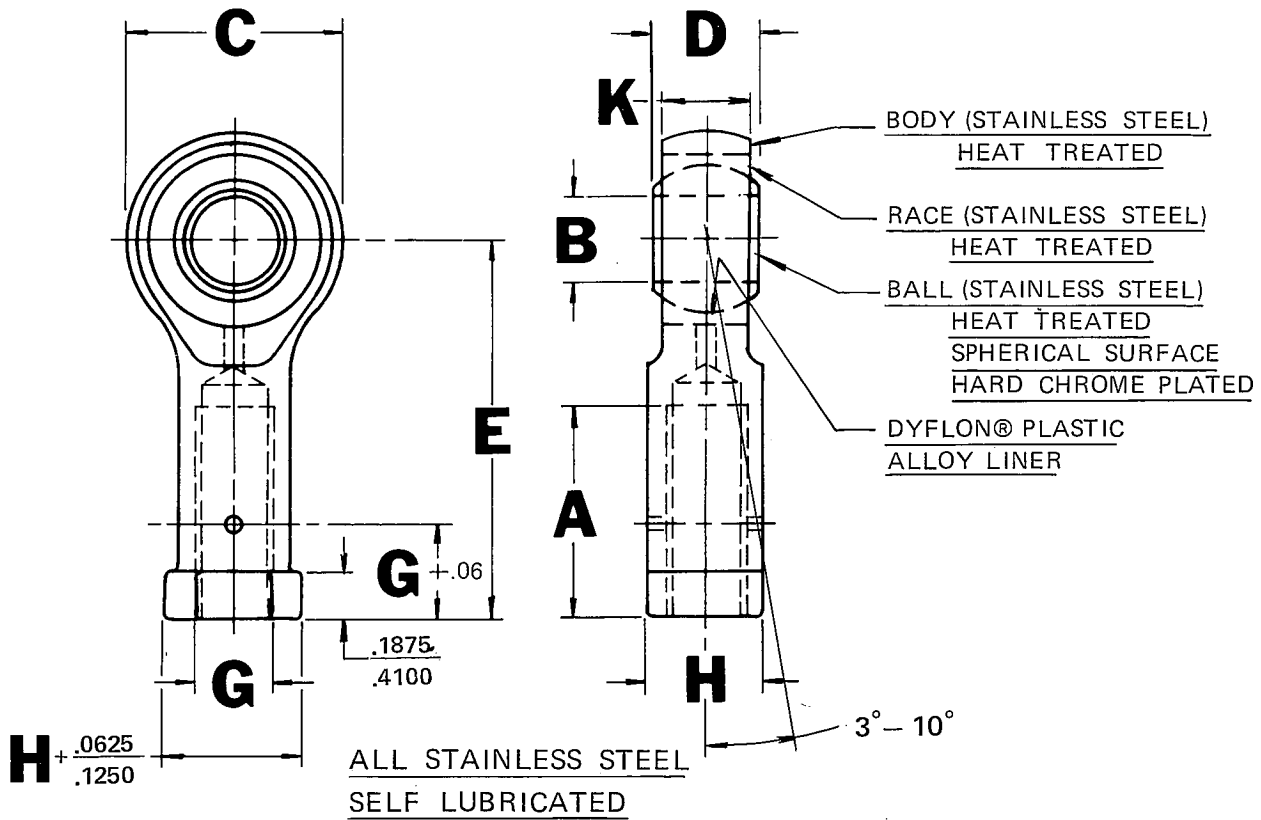
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	± BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
DREF- 3	.1900	.781	.437	1.375	.750	1/4 -28	.375	.337	3,600
DREF- 4	.2500	.781	.437	1.375	.750	1/4 -28	.375	.337	5,740
DREF- 5	.3125	.875	.437	1.375	.750	5/16 -24	.437	.327	6,800
DREF- 6	.3750	1.000	.500	1.625	.937	3/8 -24	.562	.416	7,100
DREF- 7	.4375	1.125	.562	1.812	1.062	7/16 -20	.625	.452	9,500
DREF- 8	.5000	1.312	.625	2.125	1.125	1/2 -20	.750	.515	13,800
DREF-10	.6250	1.500	.750	2.625	1.500	5/8 -18	.875	.577	21,000
DREF-12	.7500	1.750	.875	2.875	1.750	3/4 -16	1.000	.687	32,300
DREF-14	.8750	2.000	.875	3.375	1.875	7/8 -14	1.125	.765	36,000
DREF-16	1.0000	2.750	1.375	4.125	2.125	1 1/4 -12	1.688	1.015	52,000
DREF-20	1.2500	2.875	1.357	5.000	3.125	1 1/4 -12	1.688	1.140	70,500

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREFLH-8
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
LOW-FRICTION ROD END**





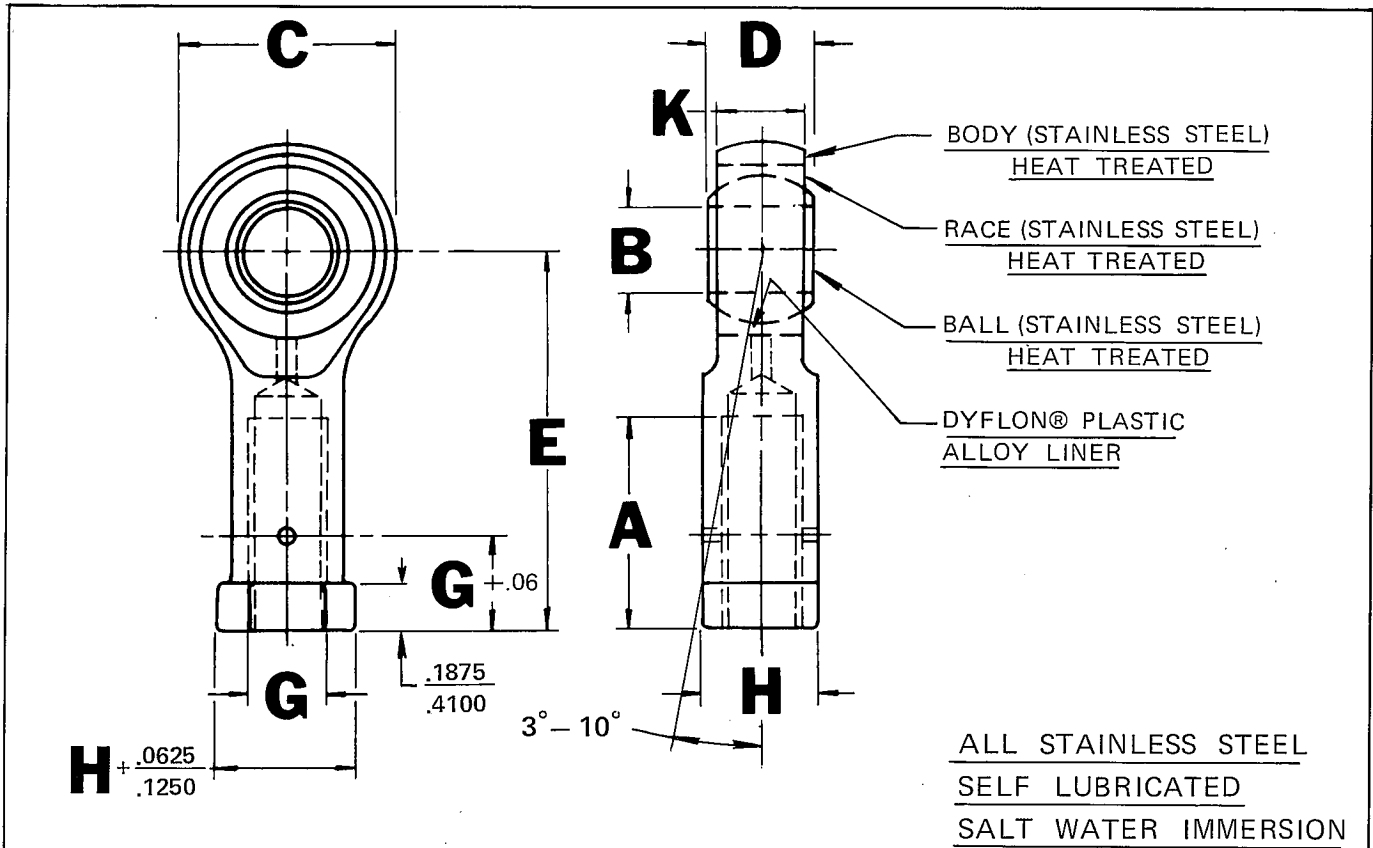
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE + .0000 - .0005	OUTSIDE DIAMETER + .010 - .010	BALL WIDTH + .000 - .002	Ø BALL TO END + .010 - .010	THREAD DEPTH + .062 - .031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. + .010 - .010	BODY WIDTH + .005 - .005	
DREF- 3-110	.1900	.781	.437	1.375	.750	5/16-24	.437	.337	3,600
DREF- 4-110	.2500	.781	.437	1.469	.750	5/16-24	.437	.337	5,740
DREF- 5-110	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	6,800
DREF- 6-110	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	7,100
DREF- 7-110	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	9,500
DREF- 8-110	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	13,800
DREF-10-110	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	21,000
DREF-12-110	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	32,300
DREF-14-110	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	36,000
DREF-16-110	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	52,000
DREF-20-110	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	70,500

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREFLH-8-110.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END**





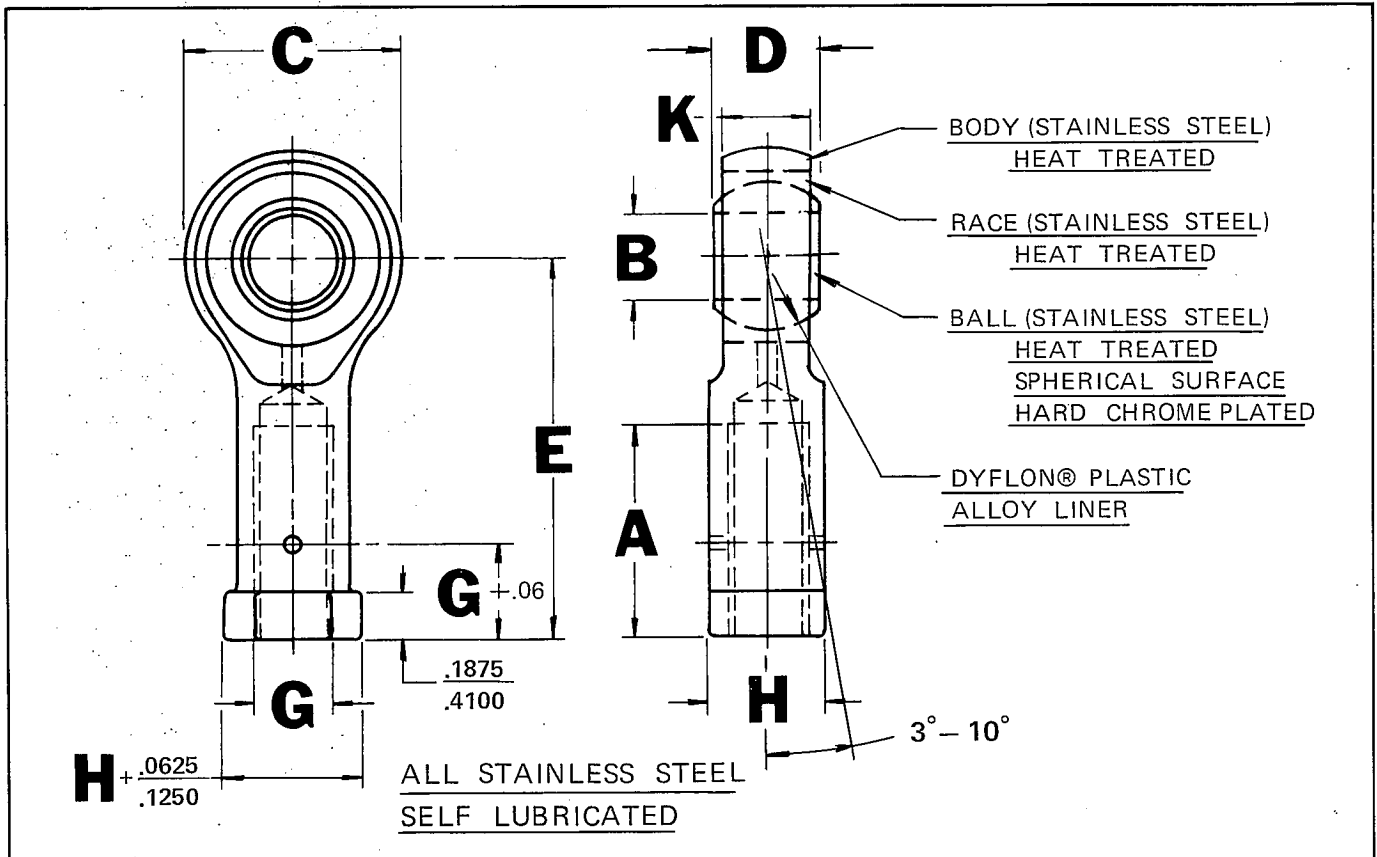
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.002	Ø BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
DREF- 3-410	.1900	.781	.437	1.375	.750	5/16-24	.437	.337	3,600
DREF- 4-410	.2500	.781	.437	1.469	.750	5/16-24	.437	.337	5,740
DREF- 5-410	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	6,800
DREF- 6-410	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	7,100
DREF- 7-410	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.425	9,500
DREF- 8-410	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	13,800
DREF-10-410	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	21,000
DREF-12-410	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	32,300
DREF-14-410	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	36,000
DREF-16-410	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	52,000
DREF-20-410	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	70,500

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREFLH-8-410.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

INTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END





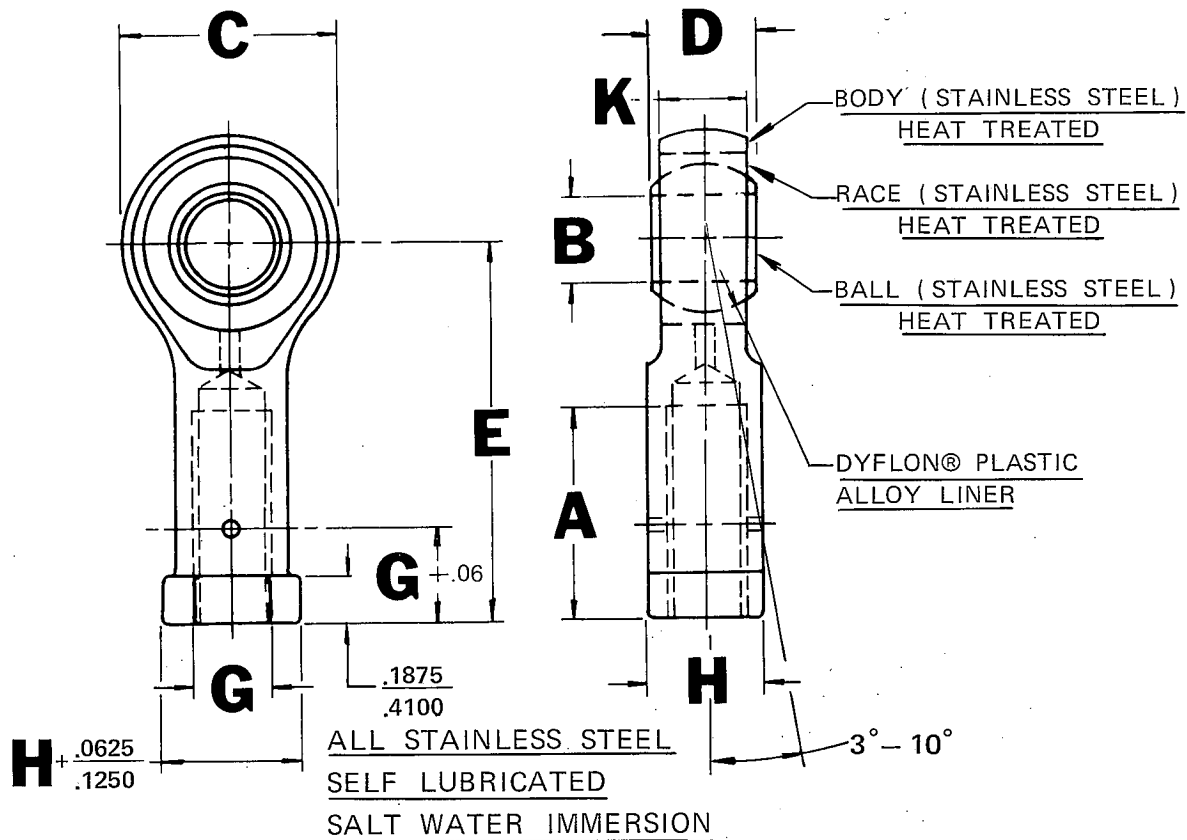
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
DREF- 3-090	.1900	.781	.437	1.375	.750	1/4-28	.375	.337	3,600
DREF- 4-090	.2500	.781	.437	1.375	.750	1/4-28	.375	.337	5,740
DREF- 5-090	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	8,000
DREF- 6-090	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	10,380
DREF- 7-090	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	12,150
DREF- 8-090	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	16,600
DREF-10-090	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	23,250
DREF-12-090	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	30,250
DREF-14-090	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	36,000
DREF-16-090	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	52,000
DREF-20-090	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	70,500

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREFLH-8-090.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

INTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END





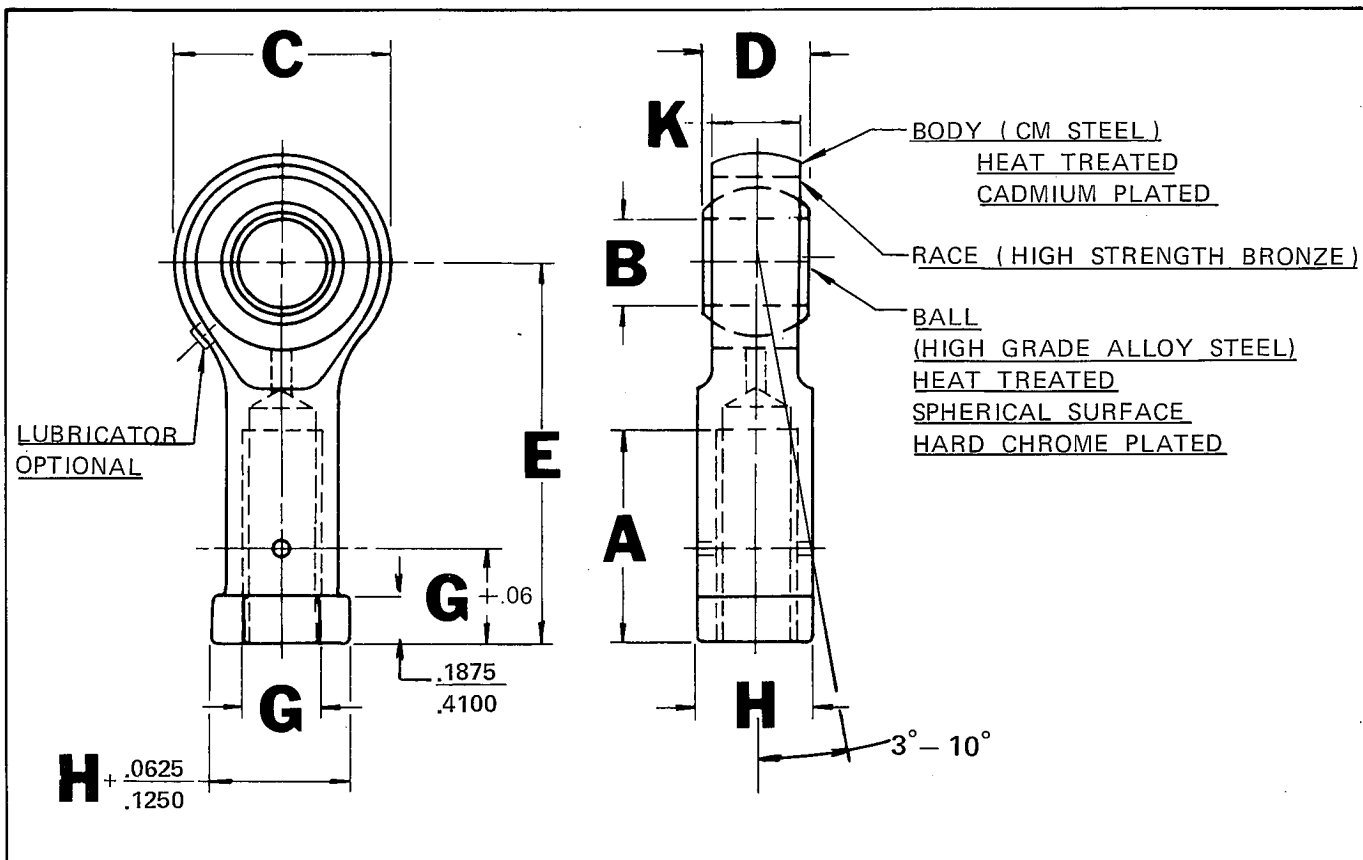
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	± BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
DREF- 3-490	.1900	.781	.437	1.375	.750	1/4-28	.375	.337	3,600
DREF- 4-490	.2500	.781	.437	1.375	.750	1/4-28	.375	.337	5,740
DREF- 5-490	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	8,000
DREF- 6-490	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	10,380
DREF- 7-490	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	12,150
DREF- 8-490	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	16,600
DREF-10-490	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	23,250
DREF-12-490	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	30,250
DREF-14-490	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	36,000
DREF-16-490	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	52,000
DREF-20-490	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	70,500

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-DREFLH-8-490.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

INTERNALLY THREADED
ALL STAINLESS STEEL
LOW-FRICTION ROD END





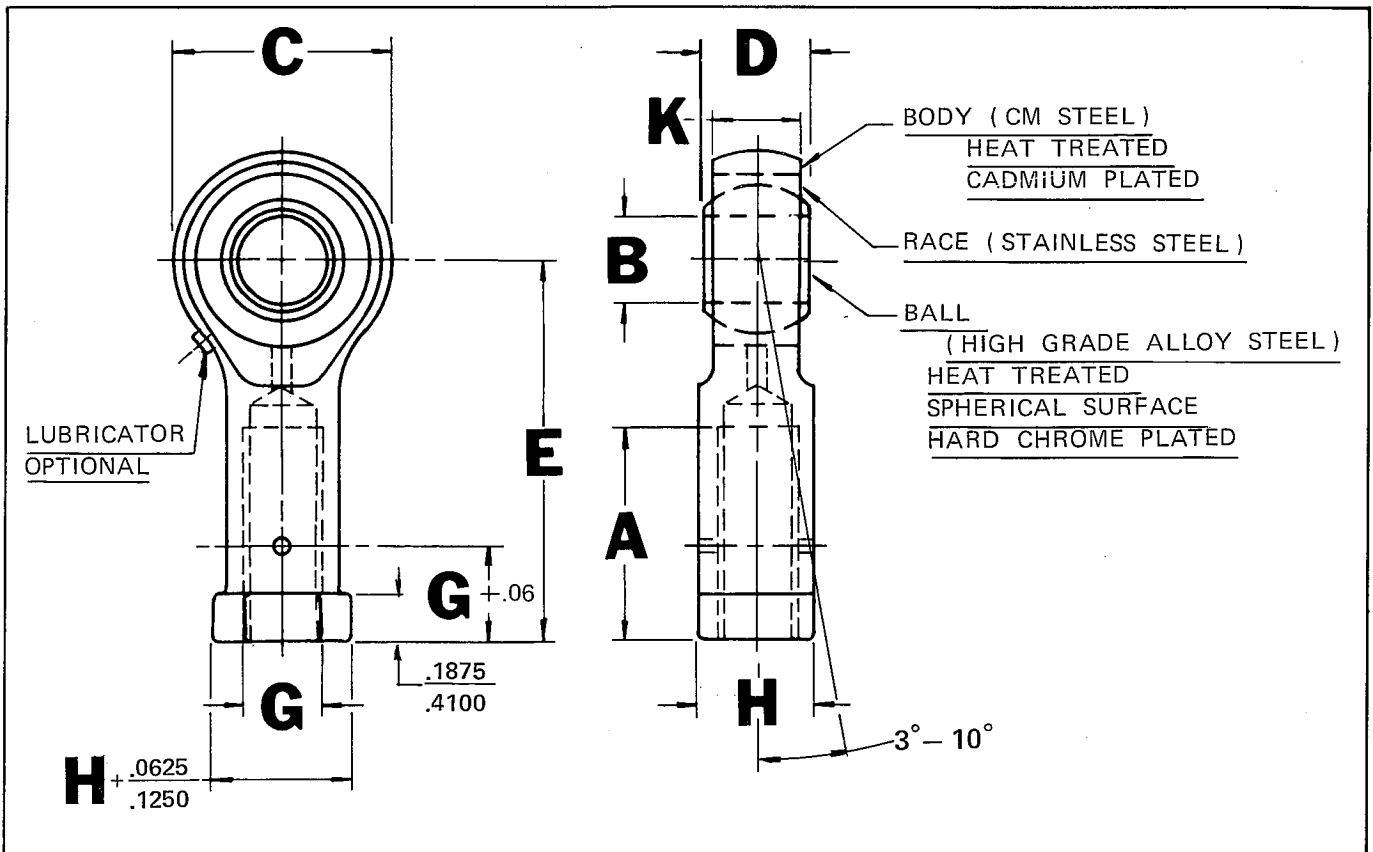
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	± BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
BRE-4445	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	5,740
BRE-5245	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	8,000
BRE-6245	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	10,380
BRE-7145	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	12,150
BRE-8230	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	16,600
BRE-10180	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	23,250
BRE-12140	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	30,250
BRE-14565	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	35,250
BRE-16615	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	62,500
BRE-20405	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	78,800

NOTES:

1. ALL THESE ROD ENDS CONTAIN A HIGH-STRENGTH BRONZE RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8230-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
HEAVY DUTY ROD END
"L" SERIES**





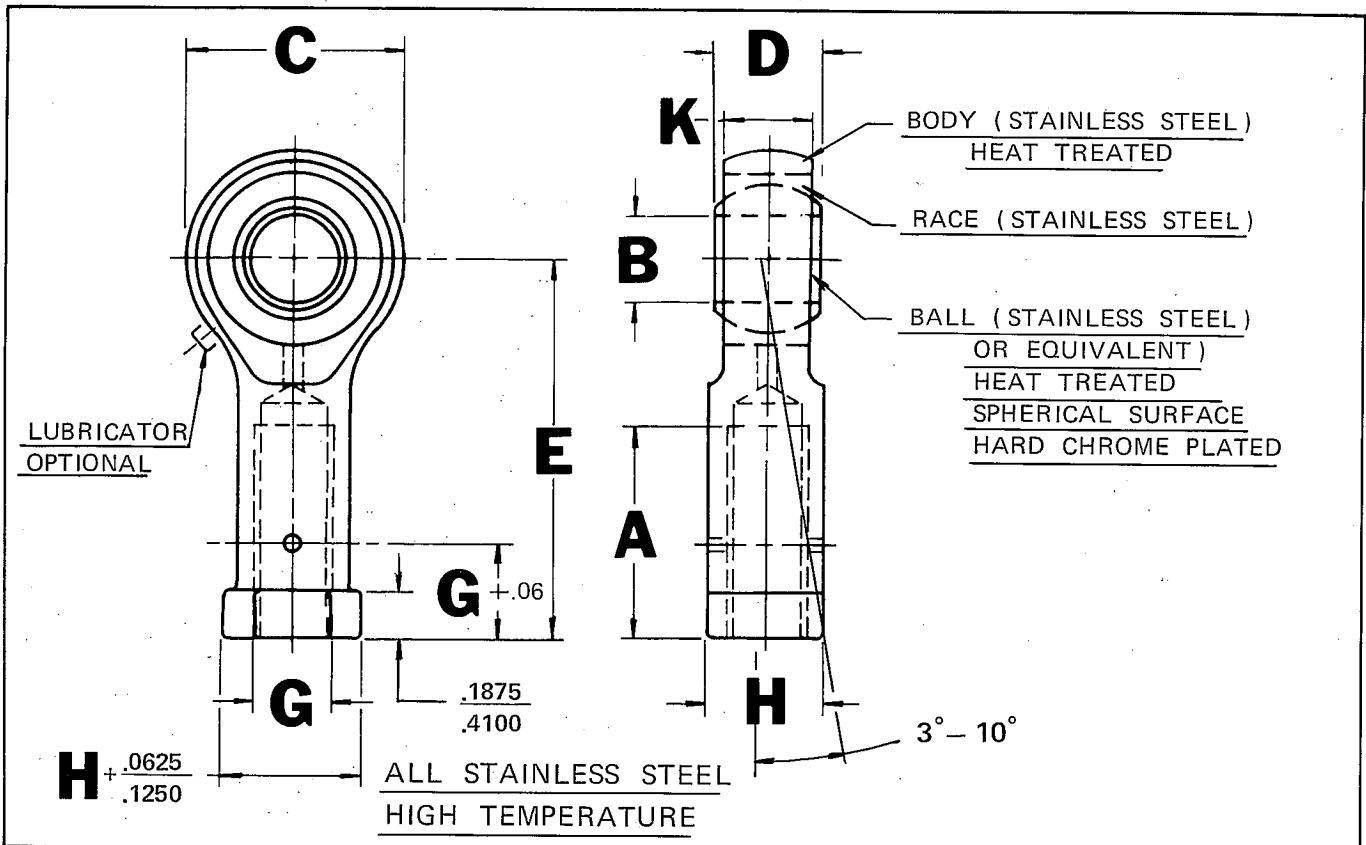
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +0.015 -0.005	OUTSIDE DIAMETER +0.01 -0.010	BALL WIDTH +0.000 -0.005	± BALL TO END +0.01 -0.010	THREAD DEPTH +0.062 -0.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +0.010 -0.010	BODY WIDTH +0.005 -0.005	
BRE-4450	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	5,740
BRE-5250	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	8,000
BRE-6250	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	10,380
BRE-7150	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	12,150
BRE-8235	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	16,600
BRE-10185	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	23,250
BRE-12145	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	30,250
BRE-14570	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	36,000
BRE-16630	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	62,500
BRE-20390	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	78,800

NOTES:

1. ALL THESE ROD ENDS CONTAIN A STAINLESS STEEL RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-BRE-8235-L.
3. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
HEAVY DUTY ROD END
"SS" SERIES**





ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +0.015 -0.005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	☉ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
BRE-4443	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	4,100
BRE-5605	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	5,700
BRE-6580	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	7,400
BRE-7445	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	8,700
BRE-8520	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	11,900
BRE-10435	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	16,600
BRE-12395	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	21,700
BRE-14590	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	23,000
BRE-16595	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	41,700
BRE-20395	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	52,500

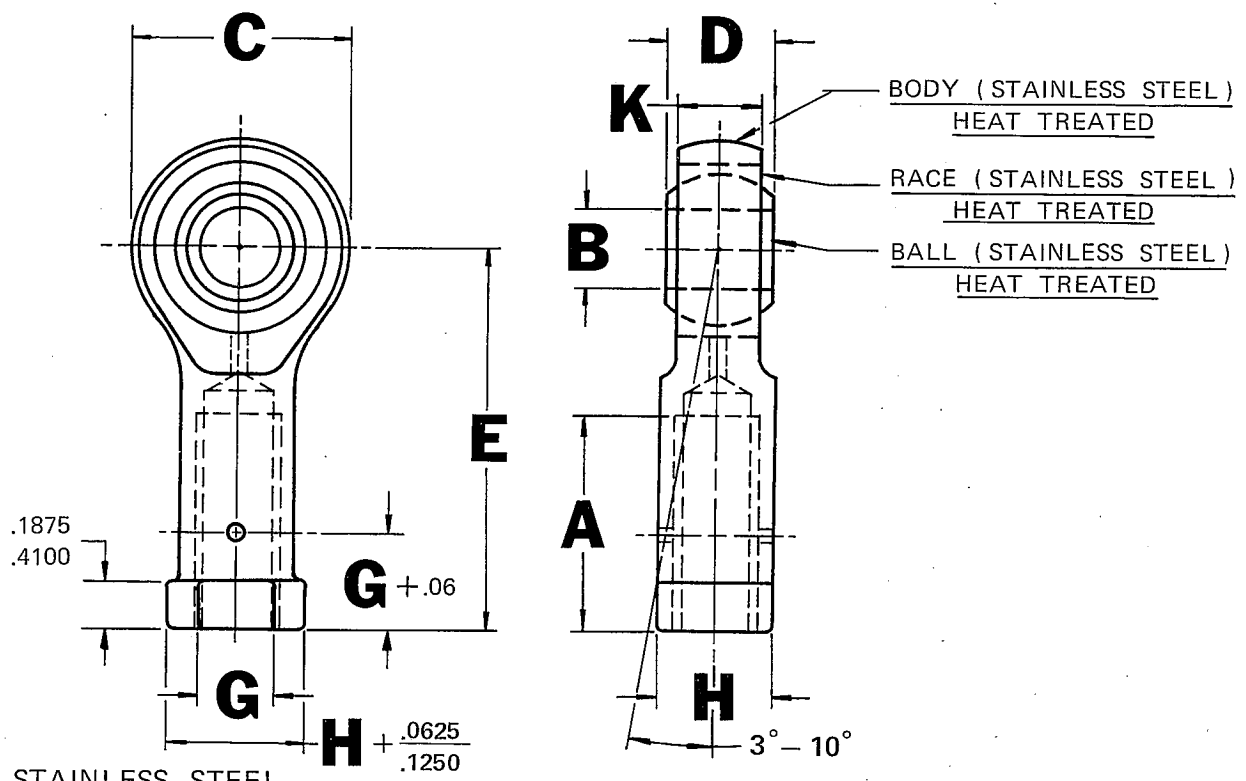
NOTES:

1. THESE ROD ENDS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
3. SHORT TIME LOADING AT 1000° F.
4. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
5. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
6. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED.

EXAMPLE-BRE-8520-L.

**INTERNALLY THREADED
HEAVY DUTY
HIGH TEMPERATURE ROD END**





ALL STAINLESS STEEL
 SALT WATER IMMERSION

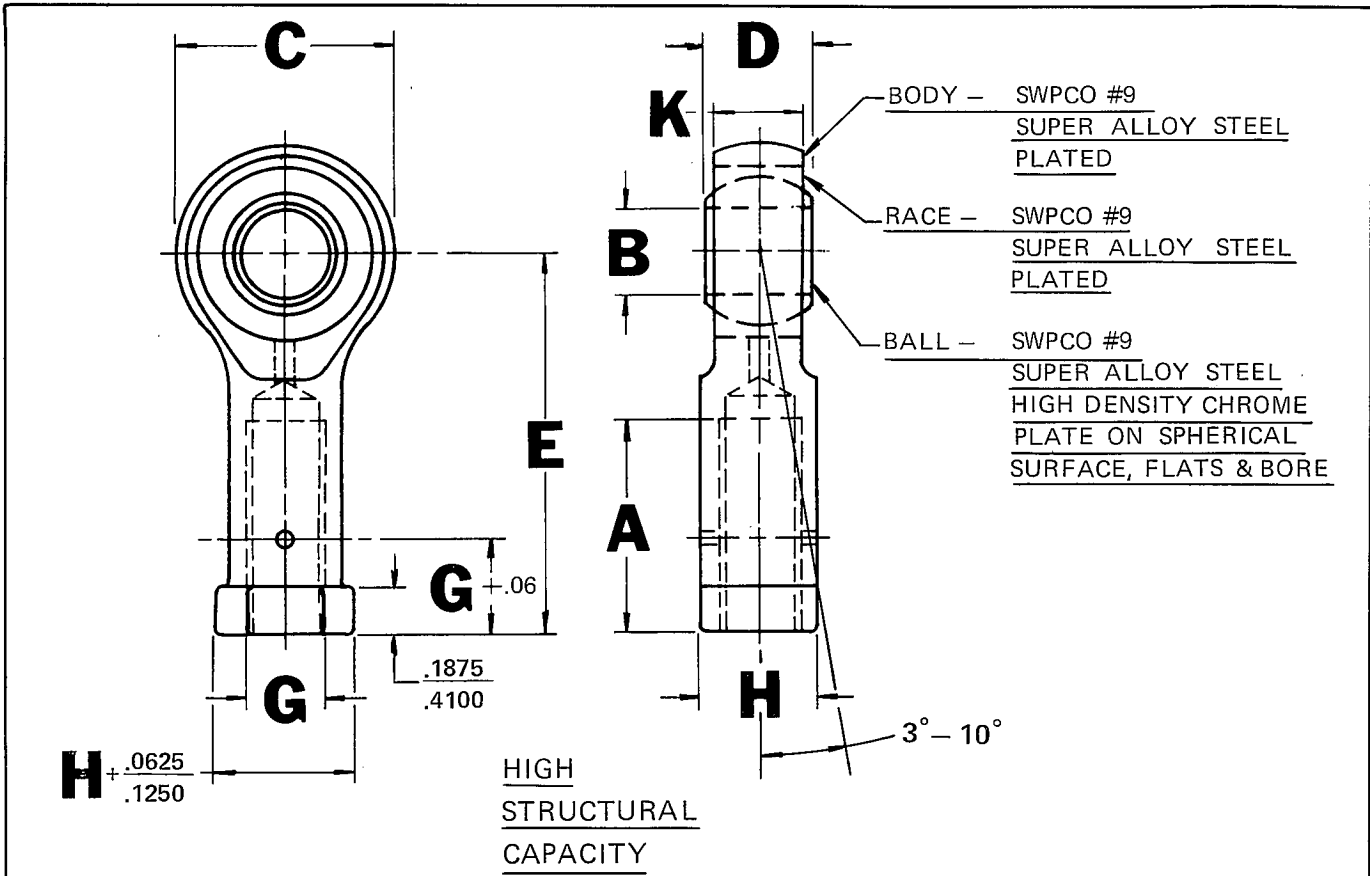
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.002	CL BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
BRE-3-2085	.1900	.781	.437	1.375	.750	5/16-24	.437	.337	3,600
BRE-4-2085	.2500	.781	.437	1.469	.750	5/16-24	.437	.337	5,740
BRE-5-2085	.3125	.875	.437	1.375	.750	5/16-24	.437	.327	6,800
BRE-6-2085	.3750	1.000	.500	1.625	.937	3/8-24	.562	.416	7,100
BRE-7-2085	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.452	9,500
BRE-8-2085	.5000	1.312	.625	2.125	1.125	1/2-20	.750	.515	13,800
BRE-10-2085	.6250	1.500	.750	2.625	1.500	5/8-18	.875	.577	21,000
BRE-12-2085	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	32,300
BRE-14-2085	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	36,000
BRE-16-2085	1.0000	2.750	1.375	4.125	2.125	1 1/4-12	1.688	1.015	52,000
BRE-20-2085	1.2500	2.875	1.357	5.000	3.125	1 1/4-12	1.688	1.140	70,500

NOTES:

1. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE-BRELH-7-2085
2. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

INTERNALLY THREADED
 ALL STAINLESS STEEL
 ROD END





ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +0.0015 -0.0005	OUTSIDE DIAMETER +0.010 -0.010	BALL WIDTH +0.000 -0.005	⊥ BALL TO END +0.010 -0.010	THREAD DEPTH +0.062 -0.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +0.010 -0.010	BODY WIDTH +0.005 -0.005	
SWRF-4-100	.2500	.875	.437	1.500	.750	3/8-24	.562	.337	17,200
SWRF-5-100	.3125	1.000	.437	1.750	.937	7/16-20	.625	.327	22,700
SWRF-6-100	.3750	1.125	.500	1.937	1.062	1/2-20	.750	.416	30,000
SWRF-7-100	.4375	1.312	.562	2.156	1.125	9/16-18	.812	.452	35,200
SWRF-8-100	.5000	1.500	.625	2.625	1.500	5/8-18	.875	.515	53,000
SWRF-10-100	.6250	1.750	.750	3.031	1.750	3/4-16	1.000	.577	64,500
SWRF-12-100	.7500	2.000	.875	3.406	1.875	7/8-14	1.125	.640	82,000
SWRF-14-100	.8750	2.562	.875	4.000	2.125	1-12	1.250	.765	114,000
SWRF-16-100	1.0000	3.000	1.375	5.281	3.125	1 1/4-12	1.688	1.015	202,000
SWRF-20-100	1.2500	3.500	1.500	6.125	3.750	1 1/2-12	1.937	1.140	229,000

NOTES:

1. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD REQUIRED. EXAMPLE-SWRFLH-4-100.
2. LOAD RATING SHOWN FOR USE IN TEMPERATURE RANGE -420° F TO +400° F.
3. HIGH IMPACT STRENGTH FOR CYROGENIC USE.

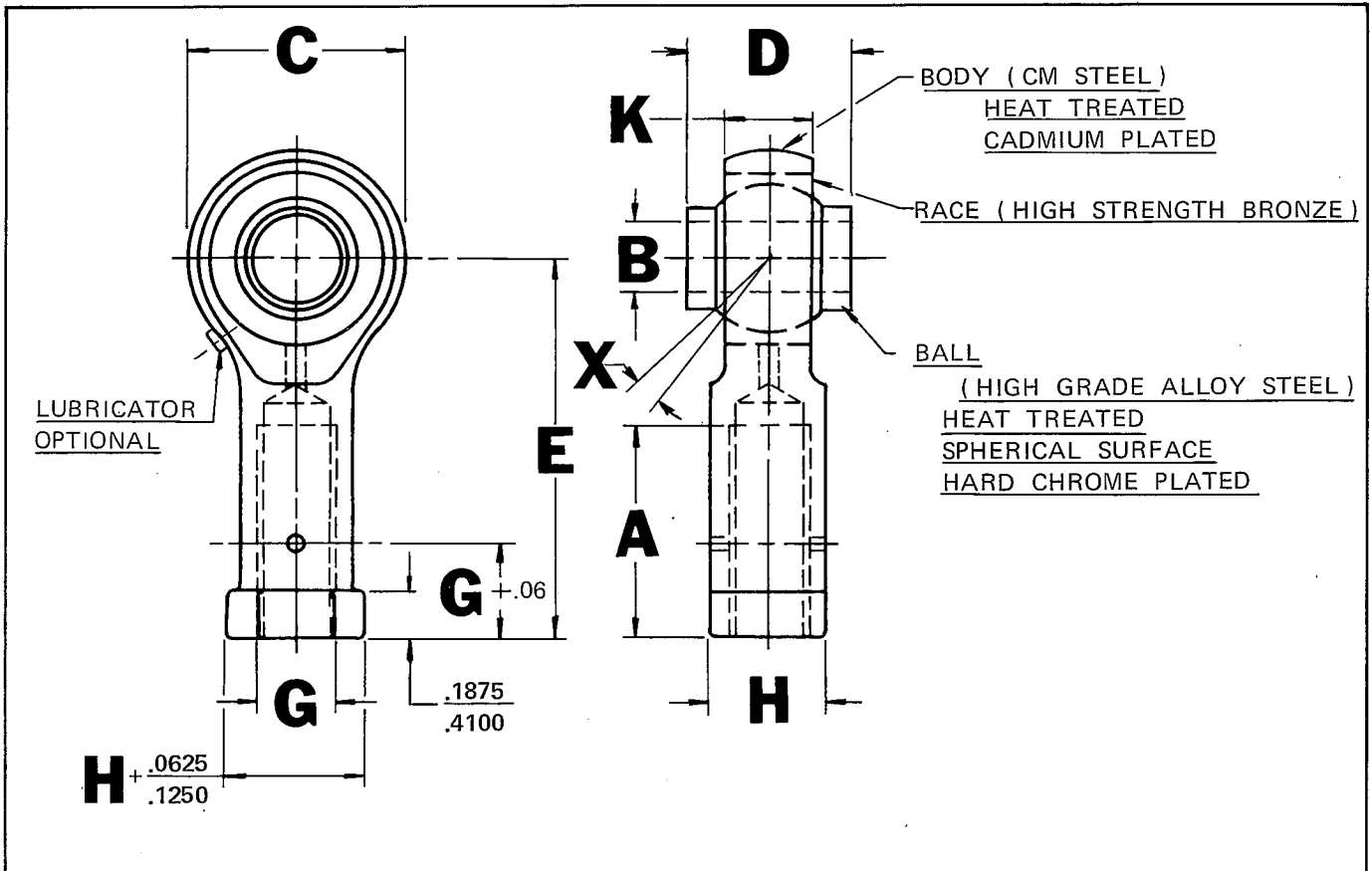
SHORT TIME HIGH TEMPERATURE RATINGS					
TEMP.	400° F	600° F	800° F	900° F	1000° F
% ULT. LOAD	90%	86%	80%	72%	55%

"SWRF-100" SERIES



U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.

COPYRIGHT 1951 BY SOUTHWEST PRODUCTS CO.



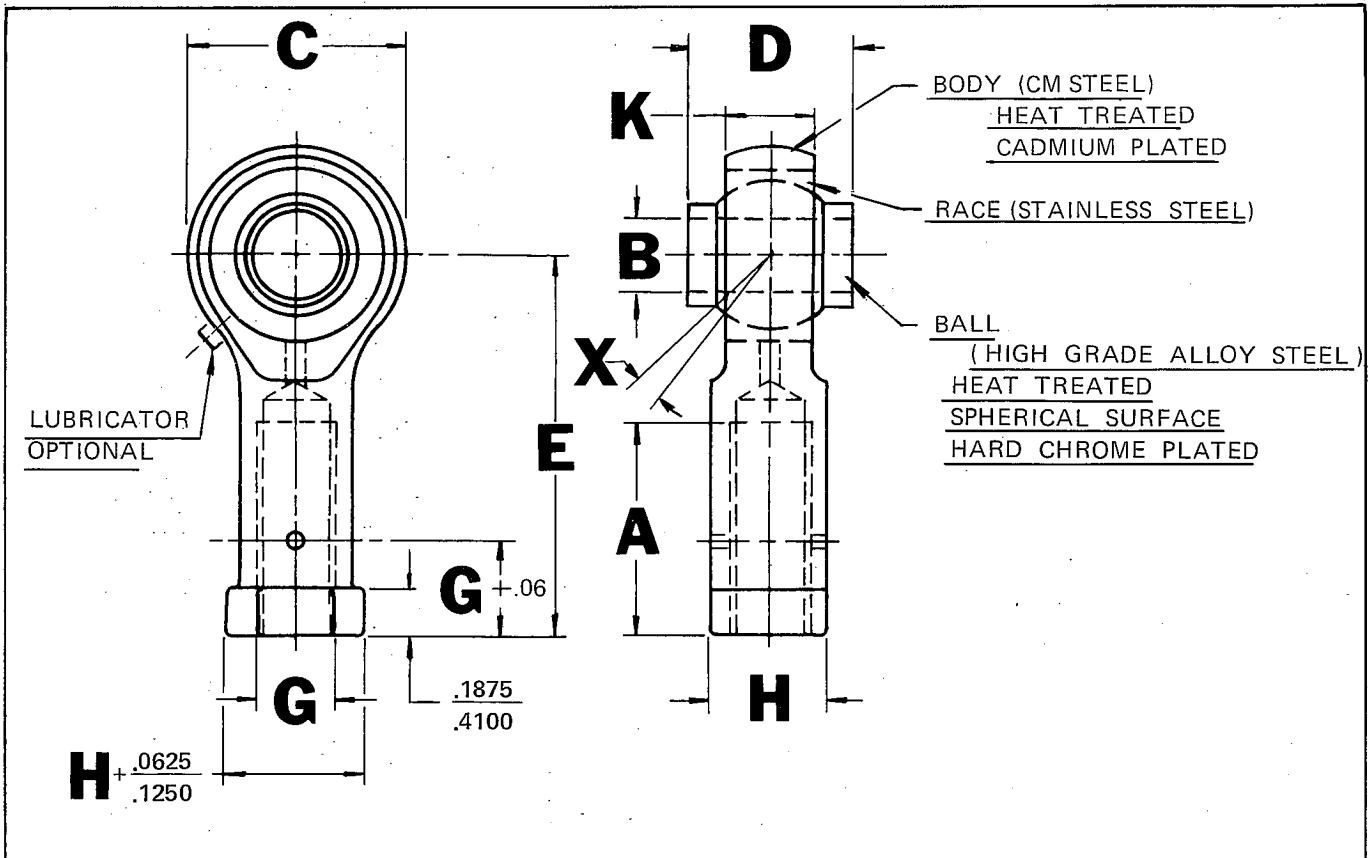
ROD END PART NO.	B	C	D	E	A	G	H	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
BRE- 3991	.1900	.781	.560	1.625	.750	5/16 -24	.500	.337	20°	3,400
BRE- 4601	.2500	1.000	.593	1.625	.937	3/8 -24	.562	.265	24°	3,400
BRE- 5251	.3125	1.125	.813	1.812	1.062	7/16 -20	.625	.355	21°	5,200
BRE- 5291	.3125	.875	.625	1.375	.750	5/16 -24	.500	.265	20°	3,570
BRE- 6251	.3750	1.125	.813	1.812	1.062	7/16 -20	.625	.355	23°	5,300
BRE- 7281	.4375	1.312	.875	2.125	1.125	1/2 -20	.750	.355	22°	8,500
BRE- 8281	.5000	1.500	.937	2.625	1.500	5/8 -18	.875	.411	20°	11,700
BRE-10281	.6250	1.750	1.200	2.875	1.750	3/4 -16	1.000	.577	17° 30'	20,000
BRE-12281	.7500	2.000	1.280	3.375	1.875	7/8 -14	1.125	.630	19°	23,500
BRE-14381	.8750	2.200	1.400	3.750	2.000	7/8 -14	1.125	.635	18°	24,800
BRE-16281	1.0000	2.750	1.875	4.125	2.125	1 1/4 -12	1.688	.845	21°	29,000
BRE-20281	1.2500	3.125	1.875	5.000	3.125	1 1/4 -12	1.688	1.015	20°	77,000

NOTES:

1. ALL THESE ROD ENDS CONTAIN A HIGH-STRENGTH BRONZE RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - BRE-8281-L
3. PART NUMBERS FOR ABOVE ROD ENDS WITH LEFT-HAND THREADS CAN BE FURNISHED UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.



**INTERNALLY THREADED ROD END
HIGH MISALIGNMENT "L" SERIES**



ROD END PART NO.	B	C	D	E	A	G	H	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	MIS-ALIGNMENT ANGLE	
BRE-4608	.2500	1.000	.593	1.625	.937	3/8-24	.562	.265	24°	3,400
BRE-4769	.2500	.938	.560	1.469	.750	5/16-24	.437	.337	20°	4,000
BRE-5452	.3125	1.125	.813	1.812	1.062	7/16-20	.625	.355	21°	5,200
BRE-5492	.3125	.875	.625	1.375	.750	5/16-24	.437	.265	20°	3,750
BRE-6227	.3750	1.125	.813	1.812	1.062	7/16-20	.625	.355	23°	5,300
BRE-7171	.4375	1.312	.875	2.125	1.125	1/2-20	.750	.355	22°	8,500
BRE-8256	.5000	1.500	.937	2.625	1.500	5/8-18	.875	.411	20°	11,700
BRE-10516	.6250	1.750	1.200	2.875	1.750	3/4-16	1.000	.577	17°30'	20,000
BRE-12446	.7500	2.000	1.280	3.375	1.875	7/8-14	1.125	.630	19°	23,500
BRE-14476	.8750	2.200	1.400	3.750	2.000	7/8-14	1.125	.635	18°	24,800
BRE-16236	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	1.688	.845	21°	29,000
BRE-20476	1.2500	3.125	1.875	5.000	3.125	1 1/4-12	1.688	1.015	20°	77,000

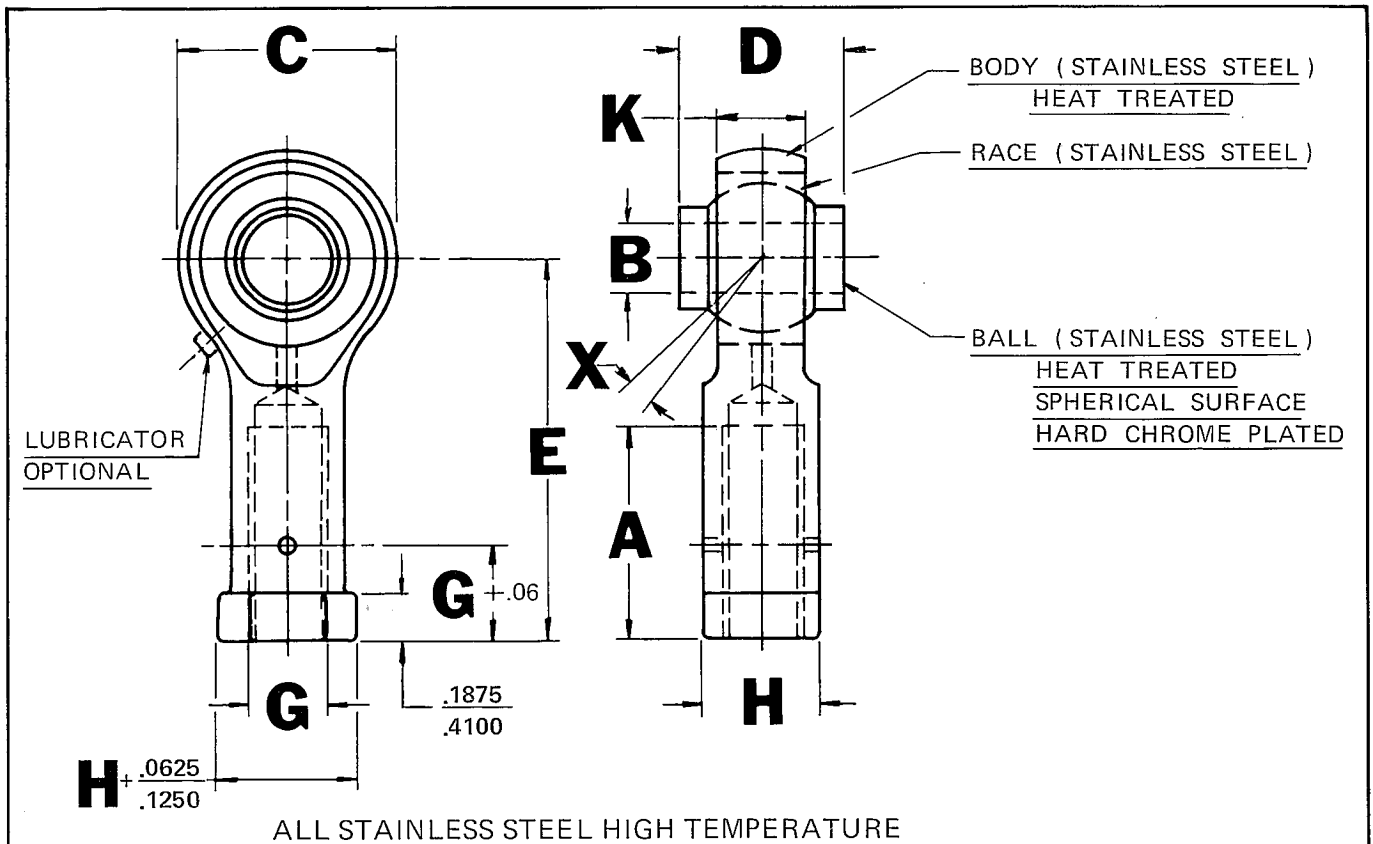
NOTES:

1. ALL THESE ROD ENDS CONTAIN A STAINLESS STEEL RACE.
2. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - BRE-8256-L
3. PART NUMBERS FOR ABOVE ROD ENDS WITH LEFT-HAND THREADS CAN BE FURNISHED UPON REQUEST.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.



**INTERNALLY THREADED ROD END
HIGH MISALIGNMENT "SS" SERIES**

U.S. Pat. No. 2,626,841; 2,724,172. British Pat. No. 734,439. Italian Pat. No. 526,903. French Pat. No. 1,077,585. Canadian Pat. No. 537,958; 604,699. Swedish Pat. No. 176,525.



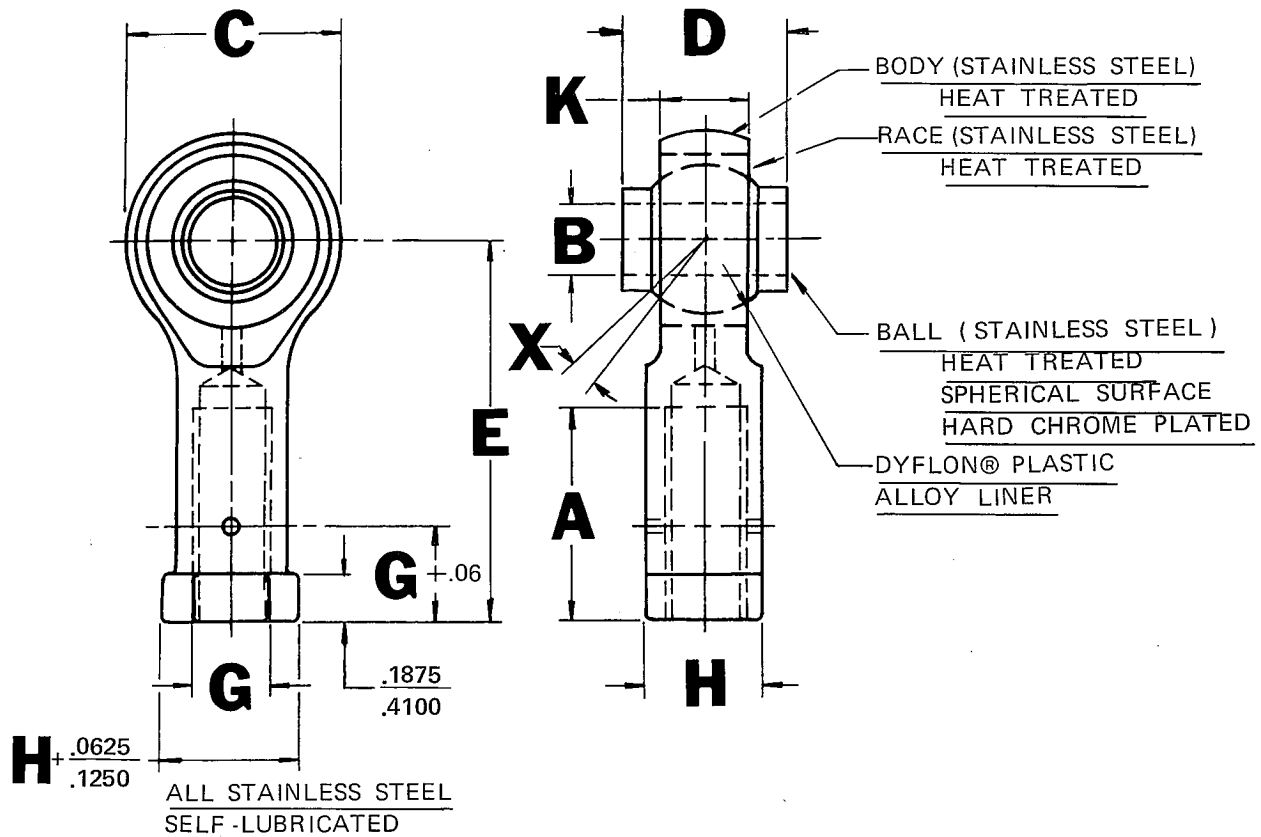
ROD END PART NO.	B	C	D	E	A	G	H	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	MIS- ALIGN- MENT ANGLE	
BRE-3921	.1900	.781	.560	1.375	.750	5/16-24	.437	.337	20°	3,880
BRE-4921	.2500	1.000	.593	1.625	.937	3/8-24	.562	.265	24°	5,200
BRE-5918	.3125	1.125	.813	1.812	1.062	7/16-20	.625	.355	21°	6,000
BRE-6921	.3750	1.125	.813	1.812	1.062	7/16-20	.625	.355	23°	6,000
BRE-7921	.4375	1.312	.875	2.125	1.125	1/2-20	.750	.355	23°	8,450
BRE-8918	.5000	1.500	.937	2.625	1.500	5/8-18	.875	.411	20°	11,900
BRE-10921	.6250	1.750	1.200	2.875	1.750	3/4-16	1.000	.577	17°30'	16,700
BRE-12921	.7500	2.000	1.280	3.375	1.875	7/8-14	1.125	.630	19°	21,500
BRE-14918	.8750	2.200	1.400	3.750	2.000	7/8-14	1.125	.635	18°	22,500
BRE-16921	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	1.688	.845	21°	41,400
BRE-20921	1.2500	3.125	1.875	5.000	3.125	1 1/4-12	1.688	1.015	20°	49,700

NOTES:

1. THESE ROD ENDS FOR HIGH TEMPERATURE OPERATIONS.
2. LOADS ARE APPROVED IN TEMPERATURE RANGE 800° - 1000° F.
3. SHORT TIME LOADING AT 1000° F.
4. LEFT HAND THREAD PART NUMBERS AVAILABLE UPON REQUEST.
5. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.
6. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - BRE-8918-L.

**INTERNALLY THREADED
HIGH MISALIGNMENT
"HIGH TEMPERATURE" ROD END**





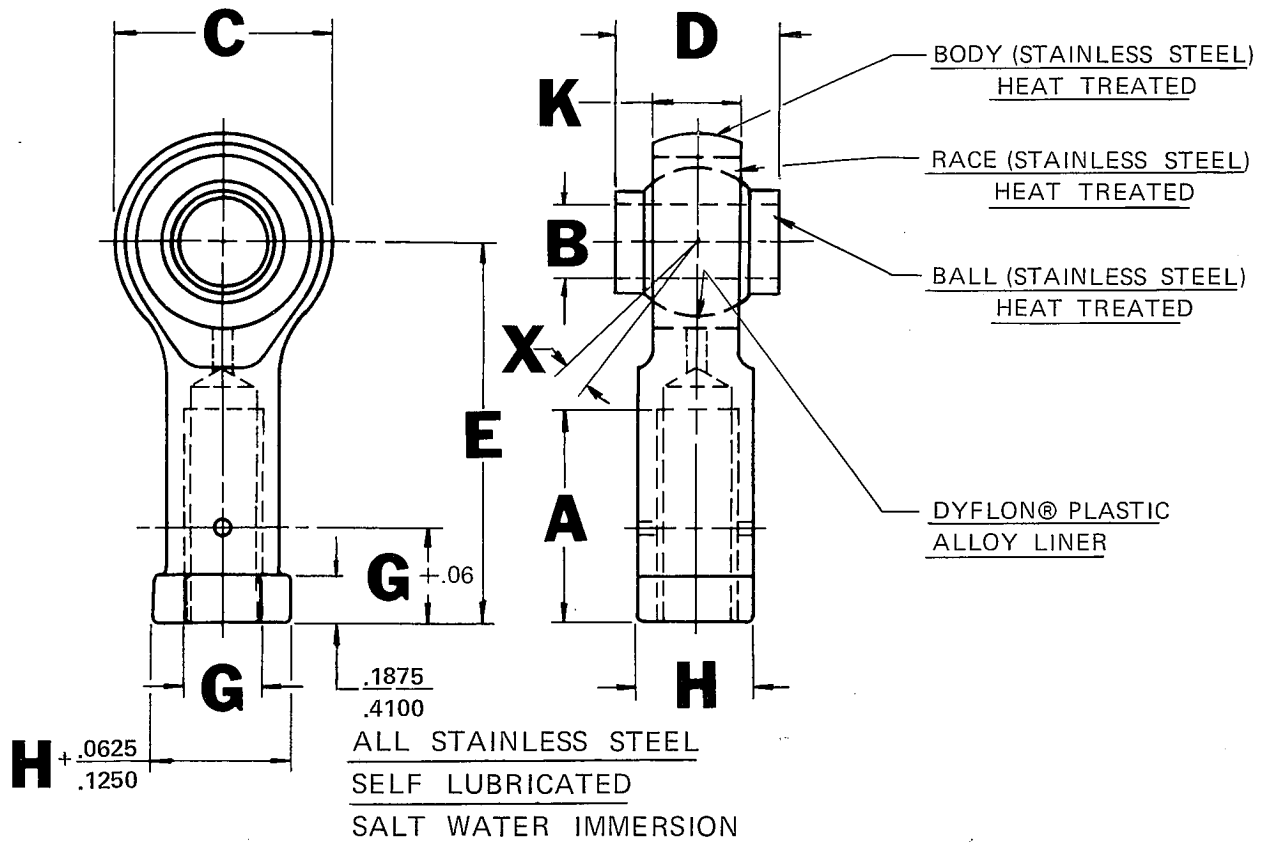
ROD END PART NO.	B	C	D	E	A	G	H	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE $+.0000$ $-.0005$	OUTSIDE DIAMETER $+.010$ $-.010$	BALL WIDTH $+.000$ $-.005$	Ø BALL TO END $+.010$ $-.010$	THREAD DEPTH $+.062$ $-.031$	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. $+.010$ $-.010$	BODY WIDTH $+.005$ $-.005$	MIS- ALIGN- MENT ANGLE	
DREF- 3-150	.1900	.781	.560	1.375	.750	5/16-24	.437	.337	20°	3,400
DREF- 4-150	.2500	1.000	.593	1.625	.937	3/8-24	.562	.265	24°	3,400
DREF- 5-150	.3125	1.125	.813	1.812	1.062	7/16-20	.625	.355	21°	5,200
DREF- 6-150	.3750	1.125	.813	1.812	1.062	7/16-20	.625	.355	23°	5,300
DREF- 7-150	.4375	1.312	.875	2.125	1.125	1/2-20	.750	.355	23°	8,500
DREF- 8-150	.5000	1.500	.937	2.625	1.500	5/8-18	.875	.411	20°	11,700
DREF-10-150	.6250	1.750	1.200	2.875	1.750	3/4-16	1.000	.577	17°30'	20,000
DREF-12-150	.7500	2.000	1.280	3.375	1.875	7/8-14	1.125	.630	19°	23,500
DREF-14-150	.8750	2.200	1.400	3.750	2.000	7/8-14	1.125	.635	18°	24,800
DREF-16-150	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	1.688	.845	21°	29,000
DREF-20-150	1.2500	3.125	1.875	5.000	3.125	1 1/4-12	1.688	1.015	20°	77,000

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT HAND THREAD IS REQUIRED.
EXAMPLE - DREFLH-6-150.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

INTERNALLY THREADED
HIGH MISALIGNMENT "LOW FRICTION" ROD END
ALL STAINLESS STEEL





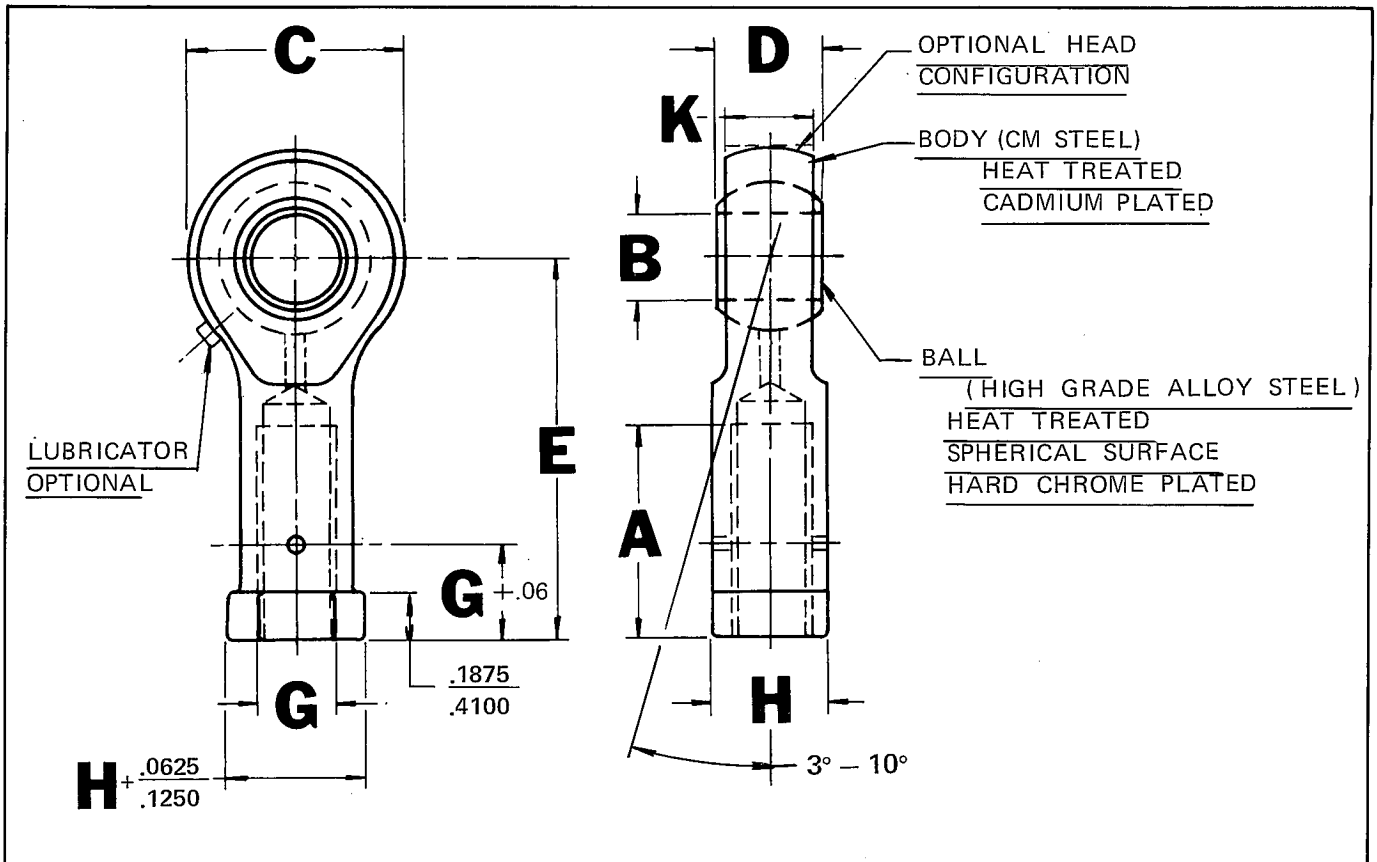
ROD END PART NO.	B	C	D	E	A	G	H	K	X	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE $+.0000$ $-.0005$	OUTSIDE DIAMETER $+.010$ $-.010$	BALL WIDTH $+.000$ $-.005$	Ø BALL TO END $+.010$ $-.010$	THREAD DEPTH $+.062$ $-.031$	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. $+.010$ $-.010$	BODY WIDTH $+.005$ $-.005$	MIS- ALIGN- MENT ANGLE	
DREF- 3-450	.1900	.781	.560	1.375	.750	5/16-24	.437	.337	20°	3,400
DREF- 4-450	.2500	1.000	.593	1.625	.937	3/8-24	.562	.265	24°	3,400
DREF- 5-450	.3125	1.125	.813	1.812	1.062	7/16-20	.625	.355	21°	5,200
DREF- 6-450	.3750	1.125	.813	1.812	1.062	7/16-20	.625	.355	23°	5,300
DREF- 7-450	.4375	1.312	.875	2.125	1.125	1/2-20	.750	.355	23°	8,500
DREF- 8-450	.5000	1.500	.937	2.625	1.500	5/8-18	.875	.411	21°	11,700
DREF-10-450	.6250	1.750	1.200	2.875	1.750	3/4-16	1.000	.577	17°30'	20,000
DREF-12-450	.7500	2.000	1.280	3.375	1.875	7/8-14	1.125	.630	19°	23,500
DREF-14-450	.8750	2.200	1.400	3.750	2.000	7/8-14	1.125	.635	18°	24,800
DREF-16-450	1.0000	2.750	1.875	4.125	2.125	1 1/4-12	1.688	.845	21°	29,000
DREF-20-450	1.2500	3.125	1.875	5.000	3.125	1 1/4-12	1.688	1.015	20°	77,000

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT HAND THREAD IS REQUIRED.
EXAMPLE - DREFLH-6-450.
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

INTERNALLY THREADED
HIGH MISALIGNMENT "LOW FRICTION" ROD END
ALL STAINLESS STEEL





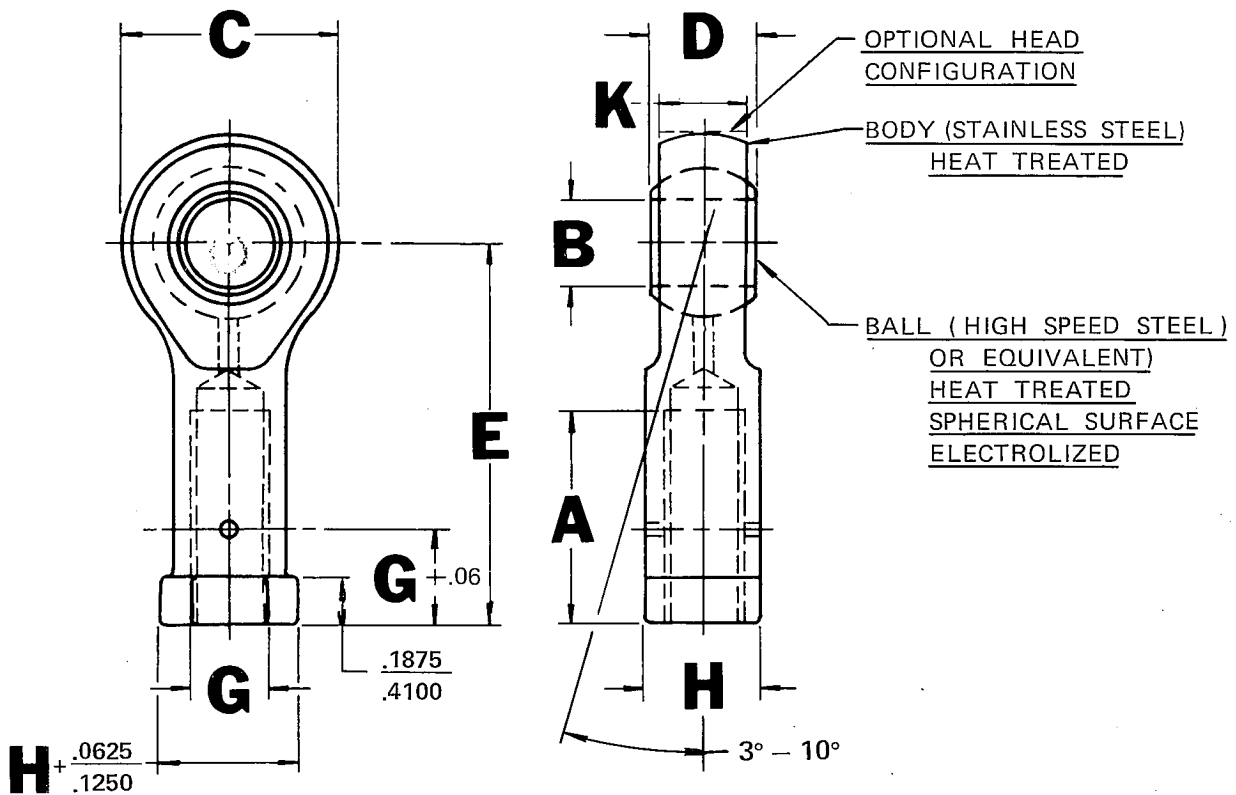
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	Ø BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B& UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
2 BREF- 4	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	7,000
2 BREF- 5	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	8,300
2 BREF- 6	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	11,250
2 BREF- 7	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	14,200
2 BREF- 8	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	22,400
2 BREF-10	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	26,000
2 BREF-12	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	33,300
2 BREF-14	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	49,200
2 BREF-16	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	77,500
2 BREF-20	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	101,000

NOTES:

1. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE-2 BREF-10-L.
2. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD REQUIRED. EXAMPLE-2 BREFLH-10.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
(2 PIECE) HEAVY DUTY
ROD END BEARING**





HIGH TEMPERATURE

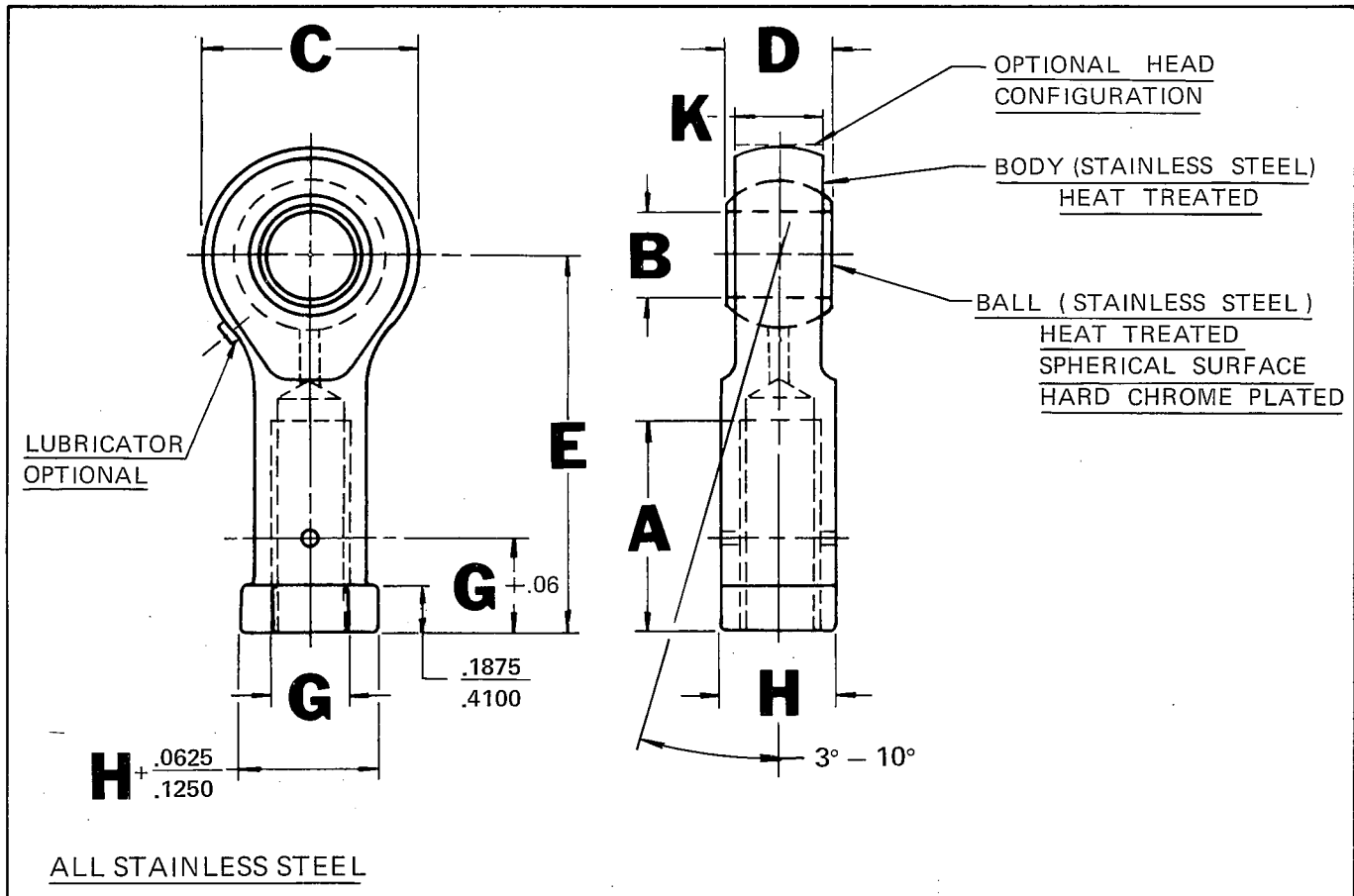
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL TENSION LOAD (LB) SHORT-TIME ONLY—ONE HOUR MAXIMUM	
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	1000° F	1200° F
2 BREF- 4A	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	2,930	2,300
2 BREF- 5A	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	4,925	3,890
2 BREF- 6A	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	7,520	5,940
2 BREF- 7A	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	10,165	8,030
2 BREF- 8A	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	16,725	13,210
2 BREF-10A	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	22,950	18,130
2 BREF-12A	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	35,525	27,990
2 BREF-14A	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	42,100	40,000
2 BREF-16A	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	66,700	63,500
2 BREF-20A	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	87,000	82,800

NOTES:

1. THESE ROD ENDS FOR HIGH TEMPERATURE OPERATIONS.
2. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD REQUIRED. EXAMPLE-- 2 BREFLH-10A
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
 (2 PIECE) HEAVY DUTY
 HIGH TEMPERATURE ROD END**





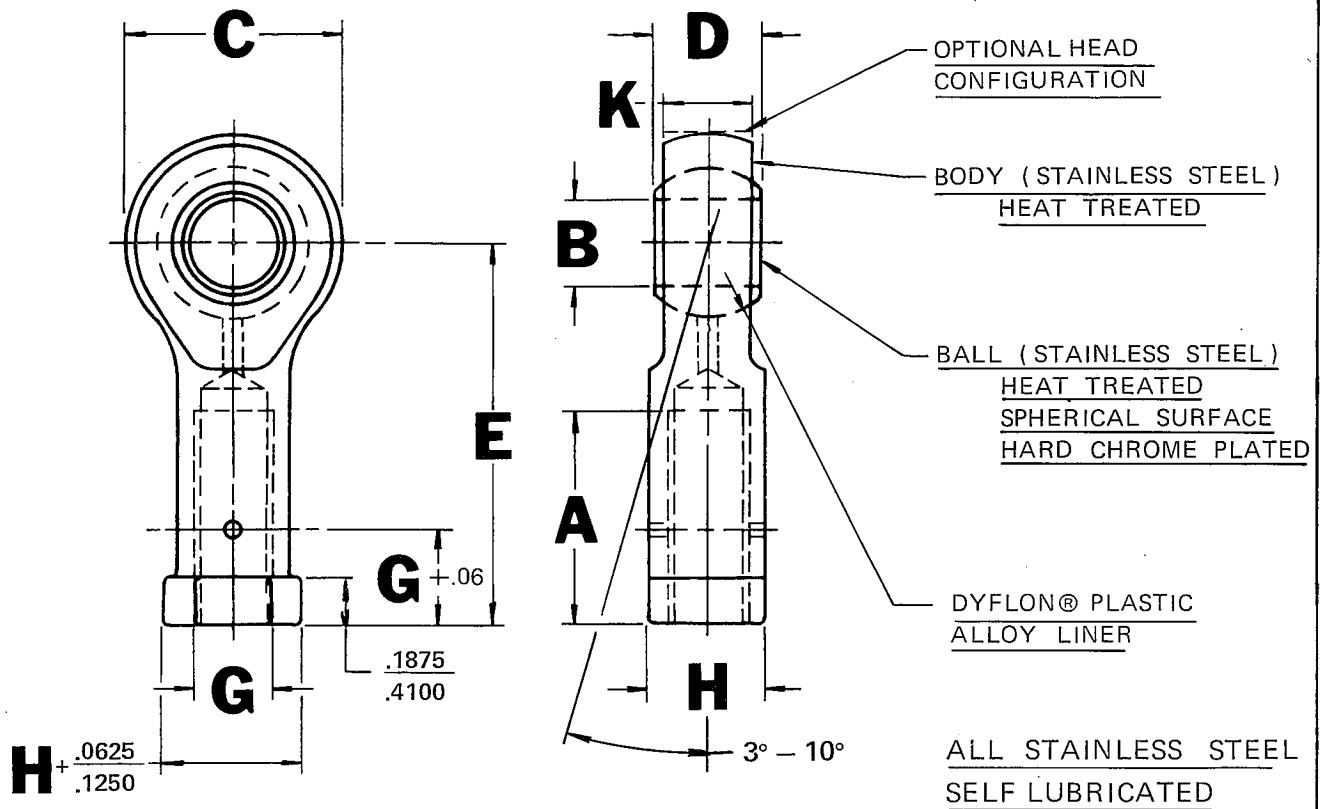
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0015 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	¢ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
2 BREF- 4-100	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	7,000
2 BREF- 5-100	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	8,300
2 BREF- 6-100	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	11,250
2 BREF- 7-100	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	14,200
2 BREF- 8-100	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	22,400
2 BREF-10-100	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	26,000
2 BREF-12-100	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	33,300
2 BREF-14-100	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	49,200
2 BREF-16-100	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	77,500
2 BREF-20-100	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	101,000

NOTES:

1. ADD "L" TO PART NUMBER IF LUBRICATOR REQUIRED. EXAMPLE - 2BREF-10-100L.
2. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD REQUIRED. EXAMPLE - 2 BREFLH-10-100.
3. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
ALL STAINLESS STEEL
(2 PIECE) HEAVY DUTY
ROD END BEARING**





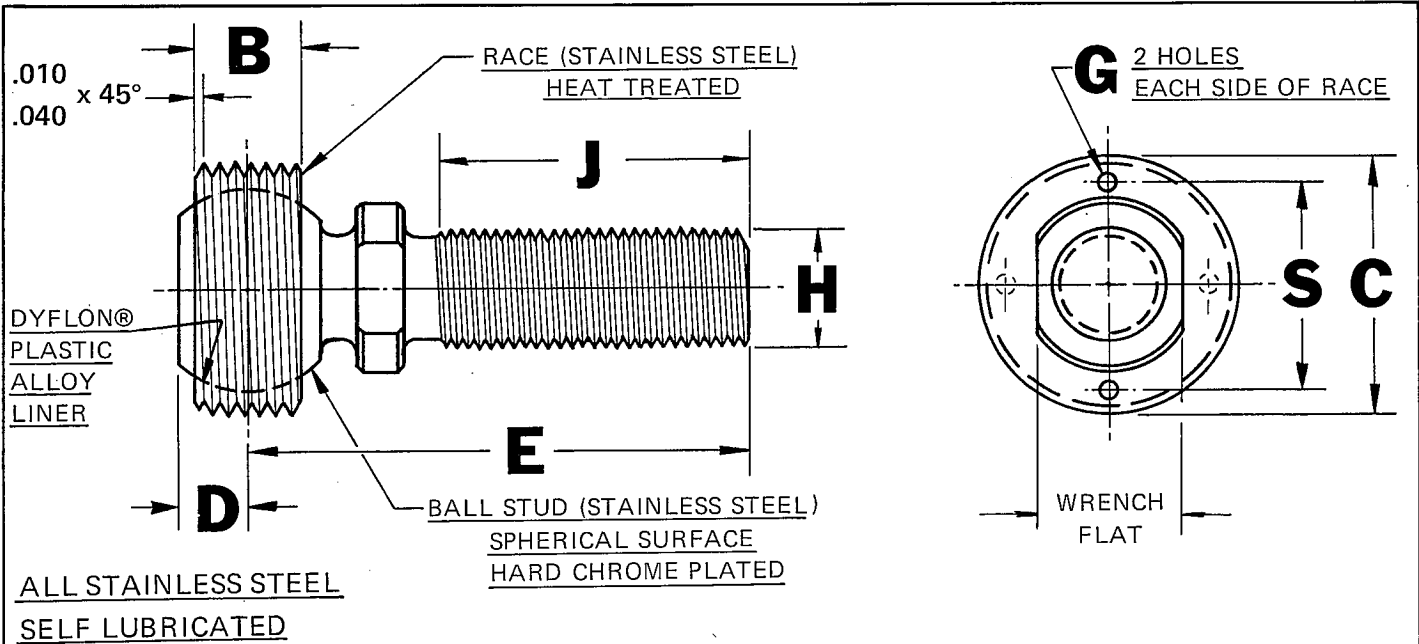
ROD END PART NO.	B	C	D	E	A	G	H	K	ULTIMATE STATIC RADIAL LOAD IN LBS.
	BORE +.0000 -.0005	OUTSIDE DIAMETER +.010 -.010	BALL WIDTH +.000 -.005	ϕ BALL TO END +.010 -.010	THREAD DEPTH +.062 -.031	THREAD SIZE UNF-3B & UNF-2B	SHANK DIA. +.010 -.010	BODY WIDTH +.005 -.005	
2 DREF- 4	.2500	.750	.375	1.312	.750	1/4-28	.375	.281	7,000
2 DREF- 5	.3125	.875	.437	1.375	.750	5/16-24	.437	.344	8,300
2 DREF- 6	.3750	1.000	.500	1.625	.937	3/8-24	.562	.406	11,250
2 DREF- 7	.4375	1.125	.562	1.812	1.062	7/16-20	.625	.437	14,200
2 DREF- 8	.5000	1.312	.625	2.125	1.187	1/2-20	.750	.500	22,400
2 DREF-10	.6250	1.500	.750	2.500	1.500	5/8-18	.875	.562	26,000
2 DREF-12	.7500	1.750	.875	2.875	1.750	3/4-16	1.000	.687	33,300
2 DREF-14	.8750	2.000	.875	3.375	1.875	7/8-14	1.125	.765	49,200
2 DREF-16	1.0000	2.625	1.375	4.125	2.125	1-12	1.250	1.015	77,500
2 DREF-20	1.2500	2.875	1.500	5.000	3.125	1 1/4-12	1.688	1.250	101,000

NOTES:

1. DYFLON® BEARING.
2. LUBRICATION NOT REQUIRED.
3. ADD "LH" TO PART NUMBER IF LEFT-HAND THREAD IS REQUIRED.
EXAMPLE - 2 DREFLH-8
4. ALL ROD ENDS ARE 100% MAGNETIC INSPECTED.

**INTERNALLY THREADED
(2 PIECE) HEAVY DUTY
LOW-FRICTION ROD END**





BEARING PART NUMBER	B	C	D	E	S & G	H	J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	RACE WIDTH +.010 -.000	OUTSIDE DIAMETER THREADS CLASS 3A	ϕ OF RACE TO BALL FACE ± .005	ϕ BALL TO END +.010 -.010	SPANNER WRENCH ϕ x DIA.	THREAD SIZE UNF-3A & UNF-2A	THREAD LENGTH +.062 -.031		
SALFBS-5	.312	13/16 -20 UNEF	.218	1.875	.685 x .031	5/16 -24	1.062	350	.625
SALFBS-6	.401	7/8 -20 UNEF	.250	1.938	.718 x .031	3/8 -24	1.250	790	.687
SALFBS-7	.437	1 -20 UNEF	.281	2.125	.843 x .062	7/16 -20	1.375	1,150	.781
SALFBS-8	.500	1 1/8 -16 UN	.312	2.438	.937 x .062	1/2 -20	1.500	1,460	.875
SALFBS-9	.531	1 1/4 -16 UN	.343	2.625	1.062 x .062	5/8 -18	1.500	2,490	1.000
SALFBS-10	.562	1 5/16 -16 UN	.375	2.625	1.125 x .062	5/8 -18	1.625	2,800	1.062
SALFBS-12	.625	1 1/2 -16 UN	.437	2.875	1.312 x .062	3/4 -16	1.750	4,430	1.250
SALFBS-14	.750	1 5/8 -16 UN	.437	3.375	1.375 x .093	7/8 -14	1.875	5,320	1.375
SALFBS-16	1.000	2 1/8 -16 UN	.687	4.125	1.875 x .093	1 1/4 -12	2.125	12,300	1.875
SALFBS-20	1.125	2 3/8 -16 UN	.750	5.000	2.125 x .093	1 1/4 -12	3.125	13,100	2.093
SALFBS-22	1.218	2 1/2 -16 UN	.843	6.250	2.250 x .093	1 1/2 -12	3.750	17,850	2.281
SALFBS-24	1.218	2 5/8 -16 UN	.843	6.250	2.375 x .093	1 1/2 -12	3.750	17,850	2.390
SALFBS-26	1.281	2 7/8 -16 UN	.875	7.000	2.562 x .125	*1 3/4 -12	4.375	28,000	2.531
SALFBS-28	1.312	3 -16 UN	.906	7.000	2.687 x .125	*1 3/4 -12	4.375	28,000	2.672
SALFBS-30	1.343	3 1/8 -16 UN	.937	7.875	2.812 x .125	*2 -12	5.000	39,000	2.812
SALFBS-32	1.375	3 1/4 -16 UN	.968	7.875	2.937 x .125	*2 -12	5.000	39,000	2.937
SALFBS-36	1.406	3 5/8 -16 UN	1.000	9.000	3.250 x .125	*2 1/4 -12	5.625	48,400	3.156
SALFBS-40	1.437	3 7/8 -16 UN	1.031	9.875	3.500 x .125	*2 1/2 -12	6.250	62,800	3.437
SALFBS-44	1.500	4 -16 UN	1.093	10.625	3.687 x .125	*2 3/4 -12	6.750	79,000	3.687
SALFBS-48	1.562	4 1/4 -16 UN	1.156	11.500	3.968 x .125	*3 -12	7.375	97,500	3.937

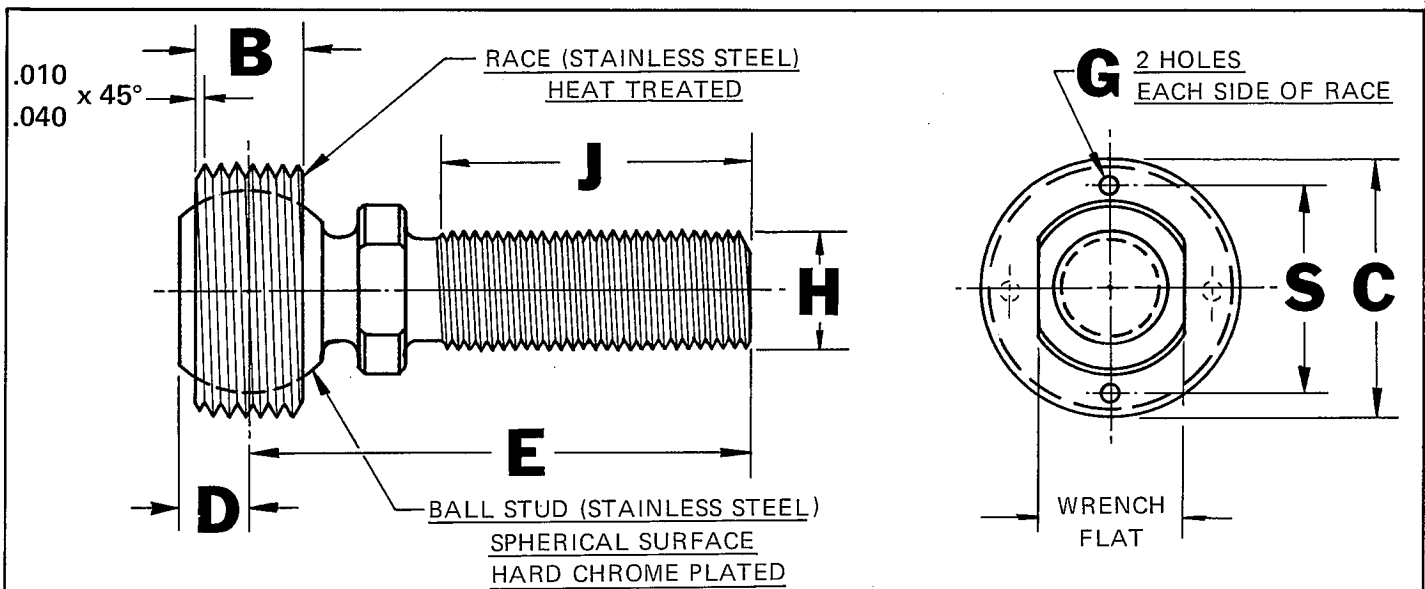
NOTES:

1. DYFLON® BEARINGS
2. LUBRICATION NOT REQUIRED.

*UN-2A & UN-3A

**EXTERNALLY THREADED
SELF ALIGNING BALL STUD
LOW FRICTION "LF" SERIES**





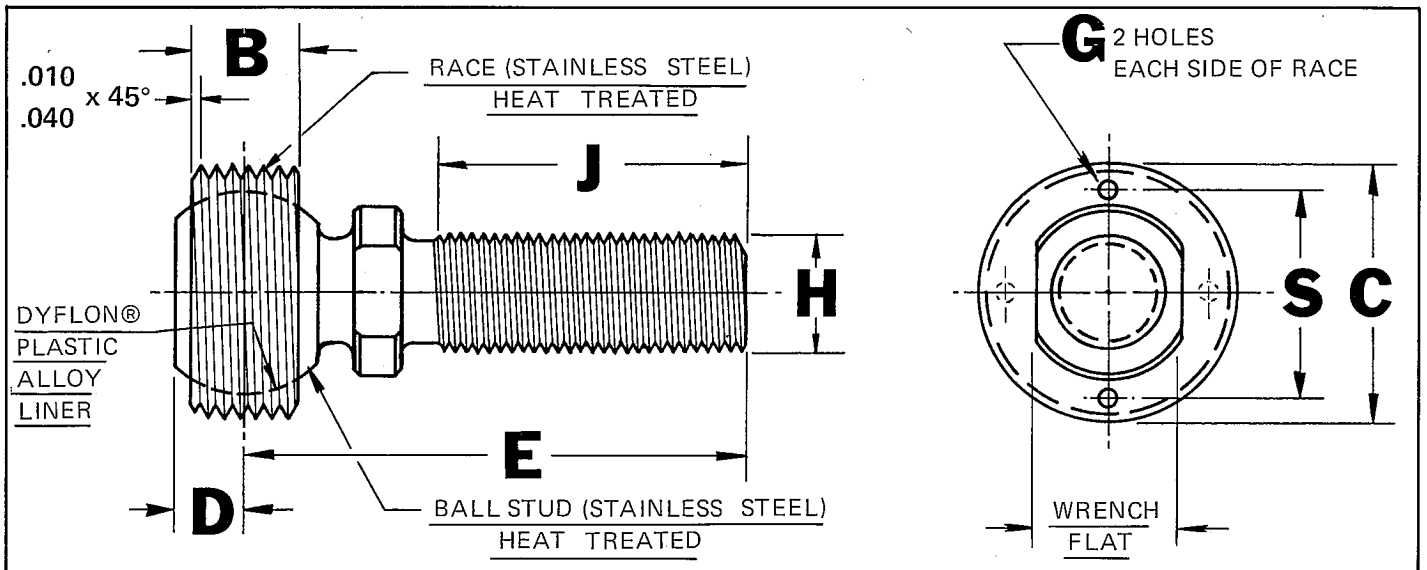
ALL STAINLESS STEEL

BEARING PART NUMBER	B	C	D	E	S & G	H	J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	RACE WIDTH +.010 -.000	OUTSIDE DIAMETER THREADS CLASS 3A	Ø OF RACE TO BALL FACE ± .005	Ø BALL TO END +.010 -.010	SPANNER WRENCH Ø x DIA.	THREAD SIZE UNF-3A & UNF-2A	THREAD LENGTH +.062 -.031		
SABS-5	.312	13/16 -20 UNEF	.218	1.875	.685 x .031	5/16 -24	1.062	350	.625
SABS-6	.401	7/8 -20 UNEF	.250	1.938	.718 x .031	3/8 -24	1.250	790	.687
SABS-7	.437	1 -20 UNEF	.281	2.125	.843 x .062	7/16 -20	1.375	1,150	.781
SABS-8	.500	1 1/8 -16 UN	.312	2.438	.937 x .062	1/2 -20	1.500	1,460	.875
SABS-9	.531	1 1/4 -16 UN	.343	2.625	1.062 x .062	5/8 -18	1.500	2,490	1.000
SABS-10	.562	1 5/16 -16 UN	.375	2.625	1.125 x .062	5/8 -18	1.625	2,800	1.062
SABS-12	.625	1 1/2 -16 UN	.437	2.875	1.312 x .062	3/4 -16	1.750	4,430	1.250
SABS-14	.750	1 5/8 -16 UN	.437	3.375	1.375 x .093	7/8 -14	1.875	5,320	1.375
SABS-16	1.000	2 1/8 -16 UN	.687	4.125	1.875 x .093	1 1/4 -12	2.125	12,300	1.875
SABS-20	1.125	2 3/8 -16 UN	.750	5.000	2.125 x .093	1 1/4 -12	3.125	13,100	2.093
SABS-22	1.218	2 1/2 -16 UN	.843	6.250	2.250 x .093	1 1/2 -12	3.750	17,850	2.281
SABS-24	1.218	2 5/8 -16 UN	.843	6.250	2.375 x .093	1 1/2 -12	3.750	17,850	2.390
SABS-26	1.281	2 7/8 -16 UN	.875	7.000	2.562 x .125	*1 3/4 -12	4.375	28,000	2.531
SABS-28	1.312	3 -16 UN	.906	7.000	2.687 x .125	*1 3/4 -12	4.375	28,000	2.672
SABS-30	1.343	3 1/8 -16 UN	.937	7.875	2.812 x .125	*2 -12	5.000	39,000	2.812
SABS-32	1.375	3 1/4 -16 UN	.968	7.875	2.937 x .125	*2 -12	5.000	39,000	2.937
SABS-36	1.406	3 5/8 -16 UN	1.000	9.000	3.250 x .125	*2 1/4 -12	5.625	48,400	3.156
SABS-40	1.437	3 7/8 -16 UN	1.031	9.875	3.500 x .125	*2 1/2 -12	6.250	62,800	3.437
SABS-44	1.500	4 -16 UN	1.093	10.625	3.687 x .125	*2 3/4 -12	6.750	79,000	3.687
SABS-48	1.562	4 1/4 -16 UN	1.156	11.500	3.968 x .125	*3 -12	7.375	97,500	3.937

*UN-2A & UN-3A

**EXTERNALLY THREADED
SELF ALIGNING BALL STUD**





ALL STAINLESS STEEL
 SELF LUBRICATED
 SALT WATER IMMERSION

BEARING PART NUMBER	B	C	D	E	S & G	H	J	ULTIMATE STATIC RADIAL LOAD IN LBS.	BALL DIA. (REF.)
	RACE WIDTH +.010 -.000	OUTSIDE DIAMETER THREADS CLASS 3A	Ø OF RACE TO BALL FACE ± .005	Ø BALL TO END +.010 -.010	SPANNER WRENCH Ø x DIA.	THREAD SIZE UNF-3A & UNF-2A	THREAD LENGTH +.062 -.031		
SALFBS- 5-275	.312	13/16-20 UNEF	.218	1.875	.685 x .031	5/16-24	1.062	350	.625
SALFBS- 6-275	.401	7/8-20 UNEF	.250	1.938	.718 x .031	3/8-24	1.250	790	.687
SALFBS- 7-275	.437	1-20 UNEF	.281	2.125	.843 x .062	7/16-20	1.375	1,150	.781
SALFBS- 8-275	.500	1 1/8 -16 UN	.312	2.438	.937 x .062	1/2-20	1.500	1,460	.875
SALFBS- 9-275	.531	1 1/4 -16 UN	.343	2.625	1.062 x .062	5/8-18	1.500	2,490	1.000
SALFBS-10-275	.562	1 5/16-16 UN	.375	2.625	1.125 x .062	5/8-18	1.625	2,800	1.062
SALFBS-12-275	.625	1 1/2 -16 UN	.437	2.875	1.312 x .062	3/4-16	1.750	4,430	1.250
SALFBS-14-275	.750	1 5/8 -16 UN	.437	3.375	1.375 x .093	7/8-14	1.875	5,320	1.375
SALFBS-16-275	1.000	2 1/8 -16 UN	.687	4.125	1.875 x .093	1 1/4-12	2.125	12,300	1.875
SALFBS-20-275	1.125	2 3/8 -16 UN	.760	6.000	2.125 x .093	1 1/4-12	3.125	13,100	2.093
SALFBS-22-275	1.218	2 1/2 -16 UN	.843	6.250	2.250 x .093	1 1/2-12	3.750	17,850	2.281
SALFBS-24-275	1.218	2 5/8 -16 UN	.843	6.250	2.375 x .093	1 1/2-12	3.750	17,850	2.390
SALFBS-26-275	1.281	2 7/8 -16 UN	.875	7.000	2.562 x .125	* 1 3/4-12	4.375	28,000	2.531
SALFBS-28-275	1.312	3-16 UN	.906	7.000	2.687 x .125	* 1 3/4-12	4.375	28,000	2.672
SALFBS-30-275	1.343	3 1/8 -16 UN	.937	7.875	2.812 x .125	* 2-12	5.000	39,000	2.812
SALFBS-32-275	1.375	3 1/4 -16 UN	.968	7.875	2.937 x .125	* 2-12	5.000	39,000	2.937
SALFBS-36-275	1.406	3 5/8 -16 UN	1.000	9.000	3.250 x .125	* 2 1/4-12	5.625	48,400	3.156
SALFBS-40-275	1.437	3 7/8 -16 UN	1.031	9.875	3.500 x .125	* 2 1/2-12	6.250	62,800	3.437
SALFBS-44-275	1.500	4-16 UN	1.093	10.625	3.687 x .125	* 2 3/4-12	6.750	79,000	3.687
SALFBS-48-275	1.562	4 1/4 -16 UN	1.156	11.500	3.968 x .125	* 3-12	7.376	97,500	3.937

*UN-2A & UN-3A

NOTES:

1. DYFLON® BEARINGS.
2. LUBRICATION NOT REQUIRED.

EXTERNALLY THREADED
 SELF ALIGNING BALL STUD
 LOW FRICTION "LF-275" SERIES



U.S. Pat. No. 3,085,312; 3,193,910. British Pat. No. 945,930. Italian Pat. No. 693,196. French Pat. No. 1,347,169. Belgium Pat. No. 640,638.

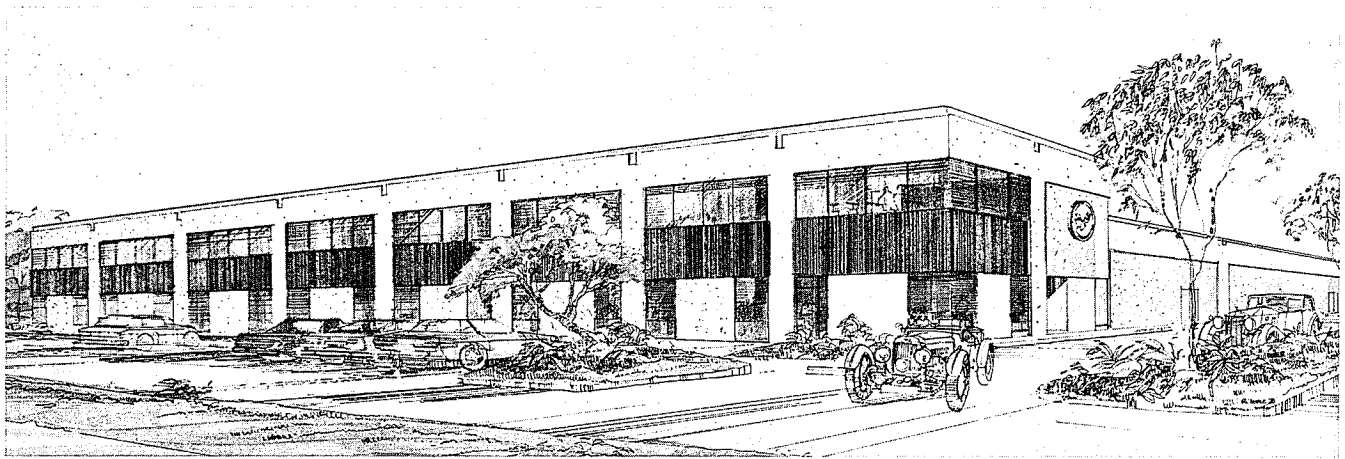
Meet the Growing SOUTHWEST Family of

SPECIAL PRODUCTS

for

SPECIAL NEEDS

® "Monoball," "Dyflon"
are registered trade names and
are patented and pat. applied for
with all world rights
reserved.



SOUTHWEST PRODUCTS CO. new large headquarters, the largest in the west devoted to the manufacture of Monoball® bearings and rod end bearings. It is staffed and equipped to render immediate consultation to you for special applications of our products, and for design and development service on new products to serve related problems. Your inquiry is invited.

GROWTH through specialization and superiority! From the original MONOBALL® bearing to a family of products so high in performance that thousands are now in use in the nation's leading aircraft and missiles! That's the story of SOUTHWEST'S growth since 1945 . . . and it's just a hint of the greater growth expected in the years ahead.

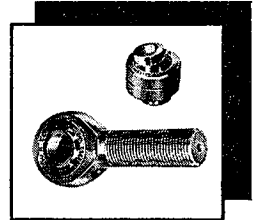
SOUTHWEST PRODUCTS CO.

P.O. BOX 1028 • MONROVIA, CALIFORNIA 91016

(213) 681-9616 • (818) 358-0181

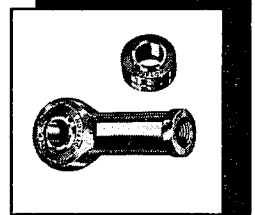
MONOBALL®

Self-aligning Spherical Bearings . . . plain and rod end types. Stainless steel, chrome and other metals. For severe conditions of high temperatures, vibration and high radial loads up to 893,000 lbs. U. S. Pat. No. 2,626,481.



DYFLON®

Self-aligning and self-lubricating Spherical Bearings. Combine MONOBALL® engineering advantages with DYFLON® plastic alloy insert for life-time lubrication. No cold-flow. Impervious to known chemical solvents.



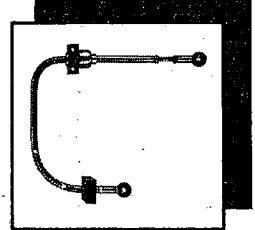
SHOCK MOUNT

Resilient shock - absorbing rubber contour - molded to outer race of our "DYFLON"® "MONOBALL"® self-aligning self-lubricating bearings results in longer life engine mounts. Load ratings from 200 to 5,000 lbs. Sizes range from 5/16" to 1" bore diameter. Larger sizes on special order. Ask for Bulletin No. 1262.



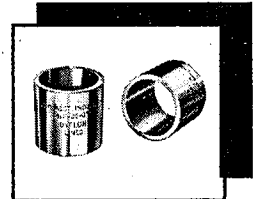
PUSH-PULL CONTROLS

Mechanical. Compression and tension type. Positive remote controls for actuating mechanical, hydraulic, other devices. Three sizes with Ult. Load 3050 lbs.; Ult. tension to 3900 lbs. U. S. Pat. No. 2,441,719. Write for Bulletin No. 1551.



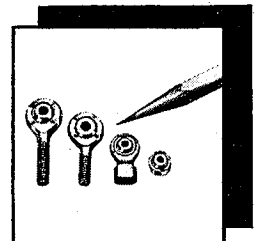
DYFLON® BUSHINGS

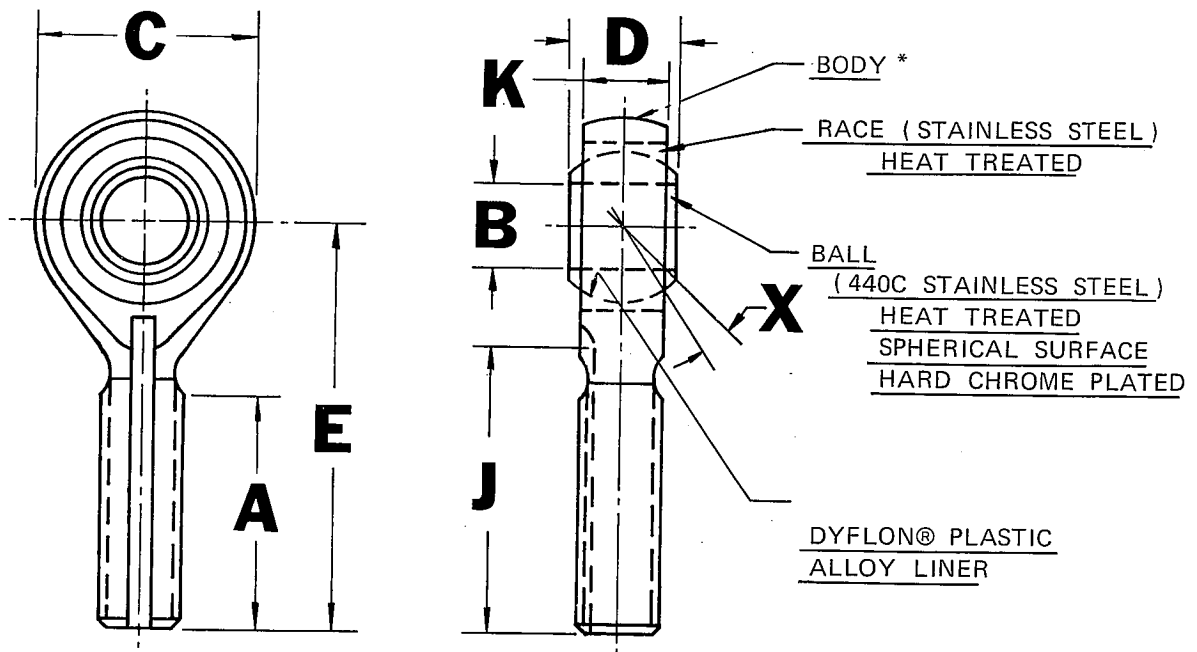
Self-lubricating, plain journal bushings. Stainless steel with DYFLON® plastic alloy insert. Capable of dynamic loads to 25,000 psi and static yield loads to 50,000 psi at low rotational speed without damage. Ask for Bulletin No. 1060.



MINIATURES

Ultra-precision, miniature self-aligning MONOBALL® spherical plain bearings and rod ends in corrosion resistant steels. Bore sizes from .046" to .156" with ultimate static load ratings from 225 lbs. to 2550 lbs. For maximum performance in compact, light weight assemblies. Ask for Bulletin No. 461.





*BODY MATERIAL PER PART NUMBER

e.g. DREM-4-475 = MS21242C4: 17-4 PH STAINLESS STEEL
HEAT TREATED

DREM-4-476 = MS21242S4: 4340 STEEL
HEAT TREATED
CADMIUM PLATED PER
QQ-P-416 CLASS 2, TYPE I

NOTES:

LUBRICATION NOT REQUIRED.

ADD "LH" TO PART NUMBER IF LEFT HAND THREAD REQUIRED.

e.g. DREMLH-4-476 = MS 21242S4L

ADD "S" TO PART NUMBER IF KEYWAY PER NAS-559 (EXCEPT FLAT AS SHOWN) IS REQUIRED.

e.g. DREMS-4-476 = MS 21242S4K

INSERT PER MS 21230.

ALL LOADS LISTED ARE IN ACCORDANCE WITH MIL-B-8948 AND MS21242.

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8948

MILITARY STANDARD (MS 21242)

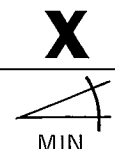
EXTERNALLY THREADED

LOW FRICTION ROD END



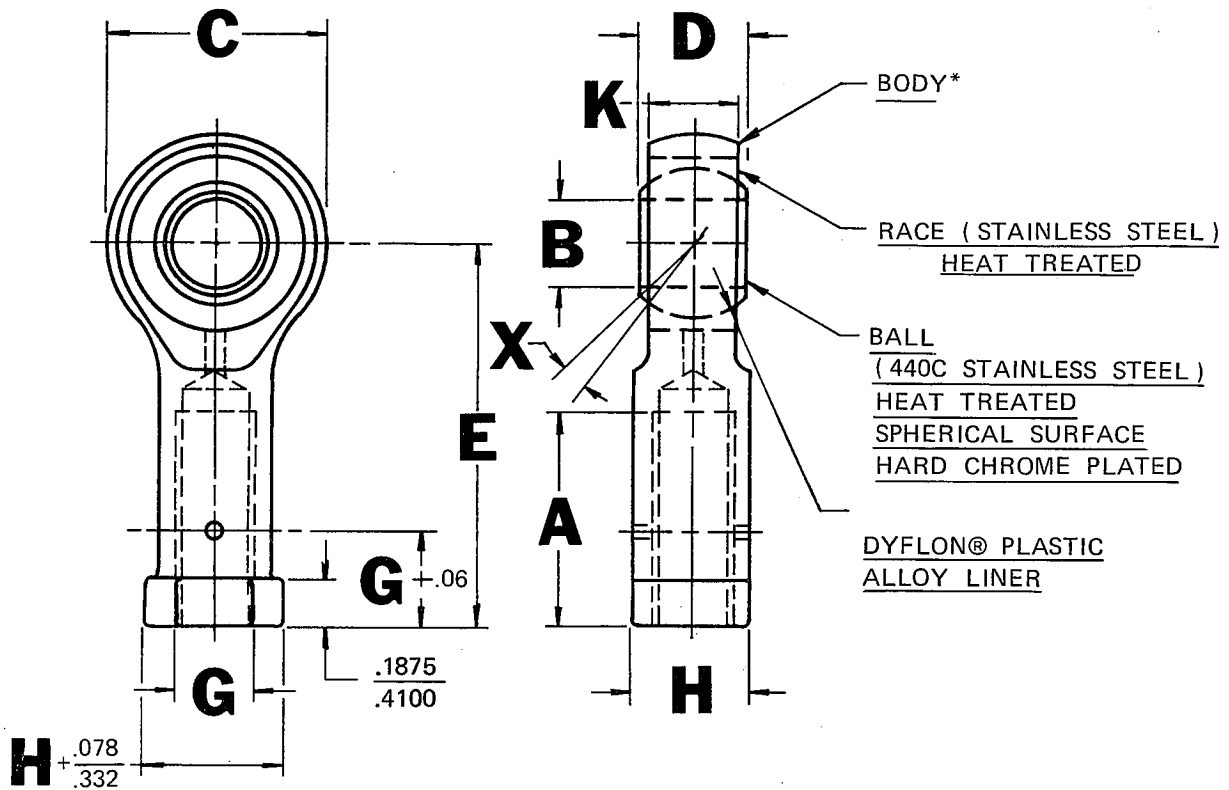
ROD END PART NO.	B	C	D	E	A	G	K	J
	BORE	OUTSIDE DIAMETER	BALL WIDTH	⊕ BALL TO END	THREAD LENGTH	THREAD SIZE	BODY WIDTH	KEYWAY FLAT
	+0.000 -0.005	+0.010 -0.010	+0.000 -0.002	+0.010 -0.010	+0.031 -0.031	UNJF-3A MIL-S-8879	+0.005 -0.005	+0.000 -0.020
DREM- 3-XXX	.1900	.806	.437	1.562	.968	.3125-24	.337	.980
DREM- 4-XXX	.2500	.806	.437	1.562	.968	.3125-24	.337	.980
DREM- 5-XXX	.3125	.900	.437	1.875	1.187	.3125-24	.327	1.270
DREM- 6-XXX	.3750	1.025	.500	1.938	1.187	.3750-24	.416	1.235
DREM- 7-XXX	.4375	1.150	.562	2.125	1.281	.4375-20	.452	1.402
DREM- 8-XXX	.5000	1.337	.625	2.438	1.468	.5000-20	.515	1.589
DREM-10-XXX	.6250	1.525	.750	2.625	1.562	.6250-18	.577	1.683
DREM-12-XXX	.7500	1.775	.875	2.875	1.687	.7500-16	.640	1.808
DREM-14-XXX	.8750	2.025	.875	3.375	2.000	.8750-14	.765	2.121
DREM-16-XXX	1.0000	2.775	1.375	4.125	2.343	1.2500-12	1.015	2.464

PART NUMBER CROSSOVER AND TECHNICAL DATA

SOUTHWEST PRODUCTS ROD END PART NO.	MILITARY STANDARD ROD END PART NO.	DYNAMIC LOAD POUNDS	ULTIMATE STATIC LOAD POUNDS	FATIGUE LOAD POUNDS	AXIAL PROOF LOAD POUNDS	NO. LOAD BREAKAWAY TORQUE		MAX WT LBS	X  MIN.
						IN./LBS.			
						MIN.	MAX.		
DREM- 3-475	MS-21242 C3	1,470	2,360	1,470	1,000	.5	6	.072	15°
DREM- 3-476	MS 21242 S3								
DREM- 4-475	MS-21242 C4	3,420	4,860	2,380	1,000	.5	6	.072	15°
DREM- 4-476	MS 21242 S4								
DREM- 5-475	MS-21242 C5	3,590	7,180	2,770	1,100	.5	6	.087	14°
DREM- 5-476	MS 21242 S5								
DREM- 6-475	MS-21242 C6	5,120	8,550	3,570	1,660	.5	6	.136	8°
DREM- 6-476	MS 21242 S6								
DREM- 7-475	MS-21242 C7	6,130	12,000	4,800	1,850	.5	6	.183	10°
DREM- 7-476	MS 21242 S7								
DREM- 8-475	MS-21242 C8	8,370	19,500	7,680	2,040	.5	6	.278	9°
DREM- 8-476	MS 21242 S8								
DREM-10-475	MS-21242 C10	10,700	21,900	9,180	2,430	.5	6	.424	12°
DREM-10-476	MS 21242 S10								
DREM-12-475	MS-21242 C12	13,200	29,300	11,600	2,810	.5	6	.639	13°
DREM-12-476	MS 21242 S12								
DREM-14-475	MS-21242 C14	16,500	34,500	13,100	3,320	.5	6	.963	6°
DREM-14-476	MS 21242 S14								
DREM-16-475	MS-21242 C16	26,000	80,300	30,400	4,340	.5	6	2.546	12°
DREM-16-476	MS 21242 S16								

**MILITARY STANDARD (MS 21242)
EXTERNALLY THREADED
LOW FRICTION ROD END**





*BODY MATERIAL PER PART NUMBER

e.g. DREF-4-480=MS21243C4: 17-4 PH STAINLESS STEEL
HEAT TREATED

DREF-4-481=MS21243S4: 4340 STEEL
HEAT TREATED
CADMIUM PLATED PER
QQ-P-416 CLASS 2 TYPE I

NOTES:


- LUBRICATION NOT REQUIRED.
- ADD "LH" TO PART NUMBER IF LEFT HAND THREAD REQUIRED.
e.g. DREFLH-4-480 = MS21243S4L
- ADD "S" TO PART NUMBER IF KEYWAY PER NAS-559 IS REQUIRED.
e.g. DREFS-4-480 = MS21243S4K
- INSERT PER MS 21230.
- ALL LOADS LISTED ARE IN ACCORDANCE WITH MIL-B-8948 AND MS 21243.

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B-8948



ROD END PART NO.	B	C	D	E	A	G	K	H
	BORE DIA. +.0000 -.0005	OUTSIDE DIA. +.010 -.010	BALL WIDTH +.000 -.002	Ø BALL TO END +.010 -.010	THREAD DEPTH MIN.	THREAD SIZE UNJF-3B MIL-S-8879	BODY WIDTH +.005 -.005	SHANK DIA. +.010 -.010
DREF- 3-XXX	.1900	.806	.437	1.375	.750	.3125-24	.337	.422
DREF- 4-XXX	.2500	.806	.437	1.469	.750	.3125-24	.337	.422
DREF- 5-XXX	.3125	.900	.437	1.625	.875	.3750-24	.327	.485
DREF- 6-XXX	.3750	1.025	.500	1.812	1.000	.3750-24	.416	.547
DREF- 7-XXX	.4375	1.150	.562	2.000	1.125	.4375-20	.452	.610
DREF- 8-XXX	.5000	1.337	.625	2.250	1.250	.5000-20	.515	.735
DREF-10-XXX	.6250	1.525	.750	2.500	1.375	.6250-18	.577	.860
DREF-12-XXX	.7500	1.775	.875	2.875	1.625	.7500-16	.640	.985
DREF-14-XXX	.8750	2.025	.875	3.375	1.875	.8750-14	.765	1.110
DREF-16-XXX	1.0000	2.775	1.375	4.125	2.125	1.2500-12	1.015	1.688

PART NUMBER CROSSOVER AND TECHNICAL DATA

SOUTHWEST PRODUCTS ROD END PART NO.	MILITARY STANDARD ROD END PART NO.	DYNAMIC LOAD POUNDS	ULTIMATE STATIC LOAD POUNDS	FATIGUE LOAD POUNDS	AXIAL PROOF LOAD POUNDS	NO LOAD BREAKAWAY TORQUE IN./LBS.		MAX. WT. LBS.	X  MIN.
						MIN.	MAX.		
DREF- 3-480	MS21243-C3	1,470	2,360	1,470	1,000	.5	6	.080	15°
DREF- 3-481	MS21243-S3								
DREF- 4-480	MS21243-C4	3,420	4,860	2,380	1,000	1	10	.084	15°
DREF- 4-481	MS21243-S4								
DREF- 5-480	MS21243-C5	3,590	7,180	3,020	1,100	1	10	.102	14°
DREF- 5-481	MS21243-S5								
DREF- 6-480	MS21243-C6	5,120	8,550	3,570	1,660	1	10	.161	8°
DREF- 6-481	MS21243-S6								
DREF- 7-480	MS21243-C7	6,130	12,000	4,800	1,850	1	10	.212	10°
DREF- 7-481	MS21243-S7								
DREF- 8-480	MS21243-C8	8,370	19,500	8,260	2,040	1	10	.325	9°
DREF- 8-481	MS21243-S8								
DREF-10-480	MS21243-C10	10,700	21,900	9,180	2,430	1	10	.481	12°
DREF-10-481	MS21243-S10								
DREF-12-480	MS21243-C12	13,200	29,300	11,600	2,810	1	10	.673	13°
DREF-12-481	MS21243-S12								
DREF-14-480	MS21243-C14	16,500	34,500	13,100	3,320	2	16	.959	6°
DREF-14-481	MS21243-S14								
DREF-16-480	MS21243-C16	26,600	80,300	30,400	4,340	2	16	2.717	12°
DREF-16-481	MS21243-S16								

QUALIFIED AND APPROVED TO SPECIFICATION MIL-B- 8948

MILITARY STANDARD (MS 21243)

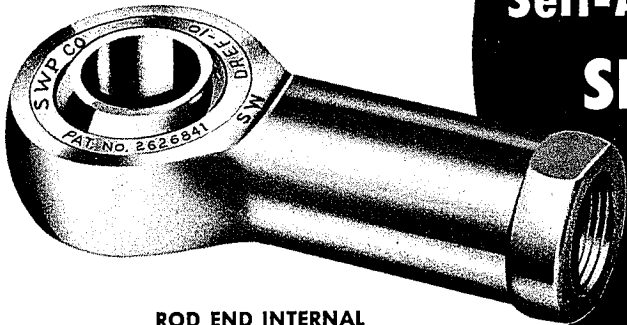
INTERNALLY THREADED

LOW FRICTION ROD END





"LFN" SERIES



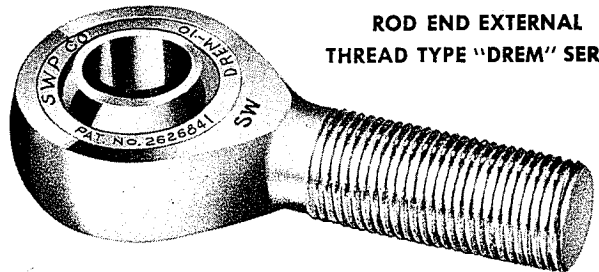
ROD END INTERNAL
THREAD TYPE "DREF" SERIES

"Dyflon"[®]
Self-Aligning and Self-Lubricating
SPHERICAL BEARINGS
 Combine "Monoball"[®]
 Engineering Advantages
 with
 Life-Time Lubrication

Design engineers in many industries are specifying new "DYFLON"[®] SELF-ALIGNING and SELF-LUBRICATING SPHERICAL BEARINGS for these 5 major reasons:

1. LOWER COEFFICIENT OF FRICTION
... ideal where lubrication is impossible or undesirable.
2. WITHSTAND EXTREME VIBRATION... perfect performance under shock load conditions.
3. WILL NOT "COLD-FLOW"... even under extreme load conditions.
4. IMPERVIOUS TO KNOWN CHEMICAL SOLVENTS
... eliminates corrosion problems.
5. FAIL SAFE... due to "Monoball"[®] design.

In addition, due to their two piece "MONOBALL"[®] design and plastic alloy insert, "DYFLON"[®] bearings have a long cycle life, high static capacity, and are capable of oscillation or rotation at extremely high dynamic loads. This new dynamic capability permits a reduced envelope where rotational loading is critical, while providing longer life. Structural bending stresses and actuator forces are reduced. Alignment and installation problems are minimized. Oil-free for life means lowest possible maintenance costs.



ROD END EXTERNAL
THREAD TYPE "DREM" SERIES



"LFR" SERIES

Available in a variety of plain or rod end types. Bore sizes to 6.000". Materials include stainless steel, plastic alloys and chrome alloy steels. Ultimate static loads to 4,600,000 lbs.



SOUTHWEST PRODUCTS CO.
 P.O. BOX 1028 • MONROVIA, CALIFORNIA 91016
 (213) 681-9616 • (818) 358-0181