

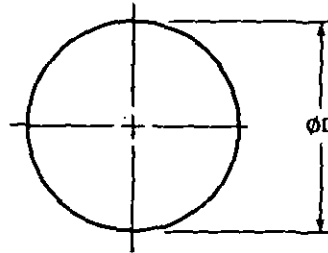
FED SUP CLASS
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TABLE I. Dash numbers and dimensions.

ØD NOMINAL BALL DIAMETER	BASIC DIAMETER ^{1/}	GRADE		
		200 ^{3/}	500	1000
		DASH NUMBER		
1/16	.062500	20001	50001	100001
3/32	.093750	20002	50002	100002
1/8	.125000	20003	50003	100003
5/32	.156250	20004	50004	100004
3/16	.187500	20005	50005	100005
7/32	.218750	20006	50006	100006
1/4	.250000	20007	50007	100007
9/32	.281250	20008	50008	100008
5/16	.312500	20009	50009	100009
11/32	.343750	20010	50010	100010
3/8	.375000	20011	50011	100011
13/32	.406250	20012	50012	100012
7/16	.437500	20013	50013	100013
15/32	.468750	20014	50014	100014
1/2	.500000	20015	50015	100015
9/16	.562500	20016	50016	100016
5/8	.625000	20017	50017	100017
11/16	.687500	20018	50018	100018
3/4	.750000	20019	50019	100019
7/8	.875000	20020	2/	2/
1	1.000000	20021	2/	2/
1-1/8	1.125000	20022	2/	2/
1-1/4	1.250000	20023	2/	2/

^{1/} See Table III for tolerances^{2/} See requirement 5^{3/} See note 2

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P.A. OS Other cust AT, 89	International Interest	Title BALLS, BEARING, BRONZE	MILITARY STANDARD MS19063
PROCUREMENT SPECIFICATION MIL-B-1083	SUPERSEDES	PAGE 1 OF 2	

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(Tolerance in millionths of an inch)

GRADE	ALLOWABLE BALL DIAMETER VARIATION	ALLOWABLE DEVIATION FROM SPHERICAL FORM	MAXIMUM SURFACE ROUGHNESS (ARITHMETICAL AVERAGE)
	V _D	W	
200	200	200	8
500	500	500	1/
1000	1000	1000	1/

1. Not applicable

TABLE III. Tolerances by grade for lots of balls.
(Tolerance in millionths of an inch)

GRADE	ALLOWABLE LOT DIAMETER VARIATION	BASIC DIAMETER TOLERANCE
200	400	± 1000
500	1000	± 2000
1000	2000	± 5000

REQUIREMENTS:

1. **MATERIAL:** BRONZE, CONFORMING TO THE CHEMICAL COMPOSITION OF UNS C46400 (CDA 464) IN ACCORDANCE WITH QQ-B-637 AND AS SPECIFIC IN PROCUREMENT DOCUMENT.
2. **HARDNESS:** SHALL BE:

BASIC DIAMETER.062500 - .750000
.875000 - 1.250000ROCKWELL HARDNESS
OR EQUIVALENTHRB75-98
HRC15-20

3. **SURFACE ROUGHNESS:** TOLERANCE LIMITS FOR SURFACE ROUGHNESS AS SPECIFIED IN TABLE II, AND IN ACCORDANCE WITH ANSI B46.1.
4. **MATERIAL DENSITY:** SHALL BE .304 POUND PER CUBIC INCH.
5. **PREFERRED BALLS:** BALLS WITH BASIC DIAMETER OF .750000 AND SMALLER ARE PREFERRED. BALLS WITH BASIC DIAMETER GREATER THAN .750000 ARE INACTIVE FOR NEW DESIGN.
6. **PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I.

EXAMPLE: MS19063-20001

DASH NUMBER

BASIC MS NUMBER

MS19063-20001 INDICATES A GRADE 200 BEARING BALL OF BRONZE WITH A BASIC DIAMETER OF 0.062500 INCH.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES. COLUMN HEADINGS IN TOLERANCE TABLES ARE IN ACCORDANCE WITH AFBMA-STD-10.
2. DASH NUMBERS 20001 THRU 20023 WERE FORMERLY DASH 1 THRU 23.
3. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
4. REFERENCED GOVERNMENT (OR NONGOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

P.A. OS	International interest	Title	MILITARY STANDARD
Other cust AT, 99		BALLS, BEARING, BRONZE	MS19063
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