

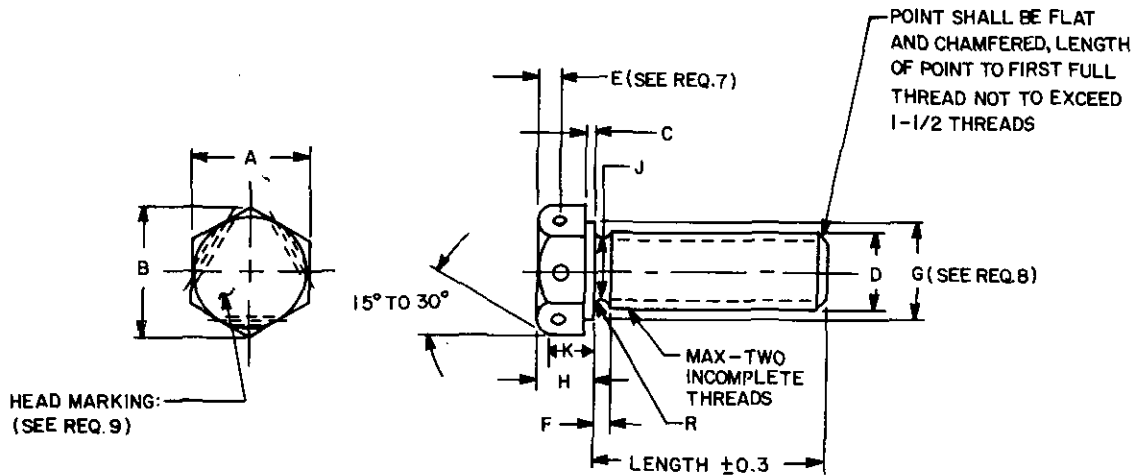
FED. SUP CLASS
5306User activities:
Army - MEReview activities:
Army - AV, EA
DLA - IS

TABLE I. DIMENSIONS.

| D NOMINAL BOLT DIA AND THREAD PITCH | A WIDTH ACROSS FLATS | | B WIDTH ACROSS CORNERS | | C WASHER FACE THICKNESS | F UNDER CUT LENGTH | G WASHER FACE DIA | H HEAD HEIGHT | | J UNDERCUT DIAMETER | | R RADIUS OF FILLET | K WRENCH- ING HEIGHT |
|--|-------------------------------|--------|---------------------------------|--------|----------------------------------|-----------------------------|----------------------------|---------------------|-------|---------------------------|-------|-----------------------------|-------------------------------|
| | MAX | MIN | MAX | MIN | MAX | MAX | MIN | MAX | MIN | MAX | MIN | MIN | MIN |
| M5X0.8 | 8.00 | 7.64 | 9.24 | 8.63 | 0.4 | 2.4 | 7.2 | 3.88 | 3.35 | 3.09 | 3.00 | 0.2 | 2.4 |
| M6X1 | 10.00 | 9.64 | 11.55 | 10.89 | 0.4 | 3.0 | 9.1 | 4.38 | 3.85 | 5.32 | 5.21 | 0.3 | 2.8 |
| M8X1 | 13.00 | 12.57 | 15.01 | 14.20 | 0.4 | 3.0 | 11.9 | 5.68 | 5.10 | 7.32 | 7.21 | 0.4 | 3.7 |
| M10X1.25 | 16.00 | 15.57 | 18.48 | 17.59 | 0.4 | 4.0 | 14.7 | 6.85 | 6.17 | 9.16 | 9.04 | 0.4 | 4.5 |
| M12X1.25 | 18.00 | 17.57 | 20.78 | 19.85 | 0.4 | 4.0 | 16.6 | 7.95 | 7.24 | 11.16 | 11.03 | 0.6 | 5.2 |
| M14X1.5 | 21.00 | 20.16 | 24.25 | 22.78 | 0.4 | 4.5 | 19.1 | 9.25 | 8.51 | 12.99 | 12.85 | 0.6 | 6.2 |
| M16X1.5 | 24.00 | 23.16 | 27.71 | 26.17 | 0.4 | 4.5 | 22.0 | 10.75 | 9.68 | 14.99 | 14.85 | 0.6 | 7.0 |
| M20X1.5 | 30.00 | 29.16 | 34.64 | 32.95 | 0.4 | 4.5 | 27.7 | 13.40 | 12.12 | 18.99 | 18.85 | 0.8 | 8.8 |
| M24X2 | 36.00 | 35.00 | 41.57 | 39.55 | 0.5 | 6.0 | 33.2 | 15.90 | 14.56 | 22.66 | 22.49 | 0.8 | 10.5 |
| M30X2 | 46.00 | 45.00 | 53.12 | 50.55 | 0.5 | 6.0 | 42.7 | 19.75 | 17.92 | 28.66 | 28.49 | 1.0 | 13.1 |
| M36X2 | 55.00 | 53.80 | 63.51 | 60.79 | 0.5 | 6.0 | 51.1 | 23.55 | 21.62 | 34.66 | 34.49 | 1.0 | 15.8 |
| M42X2 | 65.00 | 62.90 | 75.06 | 71.71 | 0.6 | 6.0 | 59.7 | 27.05 | 25.03 | 40.66 | 40.49 | 1.2 | 18.2 |
| M48X2 | 75.00 | 72.60 | 86.60 | 82.76 | 0.6 | 6.0 | 68.9 | 31.07 | 28.93 | 46.66 | 46.48 | 1.5 | 21.0 |
| M56X2 | 85.00 | 82.20 | 98.15 | 93.71 | 0.6 | 6.0 | 78.0 | 36.20 | 33.80 | 54.66 | 54.48 | 2.0 | 24.5 |
| M64X2 | 95.00 | 91.80 | 109.70 | 104.65 | 0.7 | 6.0 | 87.2 | 41.32 | 38.68 | 62.66 | 62.48 | 2.0 | 28.0 |
| M72X2 | 105.00 | 101.40 | 121.24 | 115.60 | 0.7 | 6.0 | 96.3 | 46.45 | 43.55 | 70.66 | 70.48 | 2.0 | 31.5 |
| M80X2 | 115.00 | 111.00 | 132.79 | 126.54 | 0.8 | 6.0 | 105.4 | 51.58 | 48.42 | 78.66 | 78.48 | 2.0 | 35.0 |
| M90X2 | 130.00 | 125.50 | 150.11 | 143.07 | 0.8 | 6.0 | 119.2 | 57.74 | 54.26 | 88.66 | 88.48 | 2.0 | 39.2 |
| M100X2 | 145.00 | 140.00 | 167.43 | 159.60 | 0.8 | 6.0 | 133.0 | 63.90 | 60.10 | 98.66 | 98.47 | 2.5 | 43.4 |
| M10X1.25 | 15.00 | 14.57 | 17.32 | 16.46 | 0.4 | 4.0 | 13.6 | 6.85 | 6.17 | 9.16 | 9.04 | 0.4 | 4.5 |

* SEE NOTE 2

METRIC

APPROVED 12 AUG 83 REVISED

| | | | | |
|---|----|---------------------------|---|----------------------------------|
| P. A. Other Cust | AR | INTERNATIONAL INTEREST | TITLE BOLT, MACHINE, HEX HEAD FULLY THREADED, FINE THREAD, METRIC | MILITARY STANDARD DS51417(AR) |
| PROCUREMENT SPECIFICATION ANSI B18.2.3.5M-1979 | | | SUPERSEDES: | PAGE 1 OF 3 |

Review activities:
Army - AV, EA
DLA - IS

User activities:
Army - ME

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TABLE II - STANDARD SIZE DASH NUMBERS

| L + .03 | | NOMINAL DIAMETER AND THREAD PITCH | | | | | | | | | | | | | | | | | | |
|------------|-------|-----------------------------------|-------|-------|----------|----------|---------|---------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | | M5X0.8 | M6X1 | M8X1 | M10X1.25 | M12X1.25 | M14X1.5 | M16X1.5 | M20X1.5 | M24X2 | M30X2 | M36X2 | M42X2 | M48X2 | M56X2 | M64X2 | M72X2 | M80X2 | M90X2 | M100X2 |
| 8 | 05008 | 06008 | 08008 | 10008 | 12010 | 14010 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 10 | 05010 | 06010 | 08010 | 10010 | 12012 | 14012 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 12 | 05012 | 06012 | 08012 | 10012 | 12014 | 14014 | 16012 | 20016 | 24016 | 30045 | 36045 | 42045 | 48045 | 56045 | 64045 | 72050 | 80050 | 90050 | -- | -- |
| 14 | 05014 | 06014 | 08014 | 10014 | 12016 | 14016 | 16014 | 20016 | 24016 | 30045 | 36045 | 42045 | 48045 | 56045 | 64045 | 72055 | 80055 | 90055 | -- | -- |
| 16 | 05016 | 06016 | 08016 | 10016 | 12016 | 14016 | 16016 | 20016 | 24016 | 30045 | 36045 | 42045 | 48045 | 56045 | 64045 | 72055 | 80055 | 90055 | -- | -- |
| 20 | 05020 | 06020 | 08020 | 10020 | 12020 | 14020 | 16020 | 20020 | 24020 | 30050 | 36050 | 42050 | 48050 | 56050 | 64050 | 72060 | 80060 | 90060 | -- | -- |
| 25 | 05025 | 06025 | 08025 | 10025 | 12025 | 14025 | 16025 | 20025 | 24025 | 30055 | 36055 | 42055 | 48055 | 56055 | 64055 | 72065 | 80065 | 90065 | -- | -- |
| 30 | 05030 | 06030 | 08030 | 10030 | 12030 | 14030 | 16030 | 20030 | 24030 | 30060 | 36060 | 42060 | 48060 | 56060 | 64060 | 72070 | 80070 | 90070 | -- | -- |
| 35 | 05035 | 06035 | 08035 | 10035 | 12035 | 14035 | 16035 | 20035 | 24035 | 30065 | 36065 | 42065 | 48065 | 56065 | 64065 | 72075 | 80075 | 90075 | -- | -- |
| 40 | 05040 | 06040 | 08040 | 10040 | 12040 | 14040 | 16040 | 20040 | 24040 | 30070 | 36070 | 42070 | 48070 | 56070 | 64070 | 72080 | 80080 | 90080 | -- | -- |
| 45 | 05045 | 06045 | 08045 | 10045 | 12045 | 14045 | 16045 | 20045 | 24045 | 30075 | 36075 | 42075 | 48075 | 56075 | 64075 | 72085 | 80085 | 90085 | -- | -- |
| 50 | 05050 | 06050 | 08050 | 10050 | 12050 | 14050 | 16050 | 20050 | 24050 | 30080 | 36080 | 42080 | 48080 | 56080 | 64080 | 72090 | 80090 | 90090 | -- | -- |
| 55 | 05055 | 06055 | 08055 | 10055 | 12055 | 14055 | 16055 | 20055 | 24055 | 30085 | 36085 | 42085 | 48085 | 56085 | 64085 | 72095 | 80095 | 90095 | -- | -- |
| 60 | 05060 | 06060 | 08060 | 10060 | 12060 | 14060 | 16060 | 20060 | 24060 | 30090 | 36090 | 42090 | 48090 | 56090 | 64090 | 72100 | 80100 | 90100 | -- | -- |
| 65 | 05065 | 06065 | 08065 | 10065 | 12065 | 14065 | 16065 | 20065 | 24065 | 30095 | 36095 | 42095 | 48095 | 56095 | 64095 | 72105 | 80105 | 90105 | -- | -- |
| 70 | 05070 | 06070 | 08070 | 10070 | 12070 | 14070 | 16070 | 20070 | 24070 | 30100 | 36100 | 42100 | 48100 | 56100 | 64100 | 72110 | 80110 | 90110 | -- | -- |
| 75 | 05075 | 06075 | 08075 | 10075 | 12075 | 14075 | 16075 | 20075 | 24075 | 30105 | 36105 | 42105 | 48105 | 56105 | 64105 | 72115 | 80115 | 90115 | -- | -- |
| 80 | 05080 | 06080 | 08080 | 10080 | 12080 | 14080 | 16080 | 20080 | 24080 | 30110 | 36110 | 42110 | 48110 | 56110 | 64110 | 72120 | 80120 | 90120 | -- | -- |
| 90 | 05090 | 06090 | 08090 | 10090 | 12090 | 14090 | 16090 | 20090 | 24090 | 30115 | 36115 | 42115 | 48115 | 56115 | 64115 | 72125 | 80125 | 90125 | -- | -- |
| 100 | 05100 | 06100 | 08100 | 10100 | 12100 | 14100 | 16100 | 20100 | 24100 | 30120 | 36120 | 42120 | 48120 | 56120 | 64120 | 72130 | 80130 | 90130 | -- | -- |
| 110 | -- | -- | 08110 | 10110 | 12110 | 14110 | 16110 | 20110 | 24110 | 30125 | 36125 | 42125 | 48125 | 56125 | 64125 | 72135 | 80135 | 90135 | -- | -- |
| 120 | | | | 10120 | 12120 | 14120 | 16120 | 20120 | 24120 | 30130 | 36130 | 42130 | 48130 | 56130 | 64130 | 72140 | 80140 | 90140 | -- | -- |
| 130 | | | | 10130 | 12130 | 14130 | 16130 | 20130 | 24130 | 30135 | 36135 | 42135 | 48135 | 56135 | 64135 | 72145 | 80145 | 90145 | -- | -- |
| 140 | | | | 10140 | 12140 | 14140 | 16140 | 20140 | 24140 | 30140 | 36140 | 42140 | 48140 | 56140 | 64140 | 72150 | 80150 | 90150 | -- | -- |
| 150 | | | | 10150 | 12150 | 14150 | 16150 | 20150 | 24150 | 30145 | 36145 | 42145 | 48145 | 56145 | 64145 | 72155 | 80155 | 90155 | -- | -- |
| 160 | | | | -- | 12160 | 14160 | 16160 | 20160 | 24160 | 30150 | 36150 | 42150 | 48150 | 56150 | 64150 | 72160 | 80160 | 90160 | -- | -- |
| 180 | | | | -- | -- | 14180 | 16180 | 20180 | 24180 | 30155 | 36155 | 42155 | 48155 | 56155 | 64155 | 72165 | 80165 | 90165 | -- | -- |
| 200 | | | | | | 14200 | 16200 | 20200 | 24200 | 30160 | 36160 | 42160 | 48160 | 56160 | 64160 | 72170 | 80170 | 90170 | -- | -- |
| 220 | | | | | | 14220 | 16220 | 20220 | 24220 | 30165 | 36165 | 42165 | 48165 | 56165 | 64165 | 72175 | 80175 | 90175 | -- | -- |
| 240 | | | | | | 14240 | 16240 | 20240 | 24240 | 30170 | 36170 | 42170 | 48170 | 56170 | 64170 | 72180 | 80180 | 90180 | -- | -- |
| 260 | | | | | | 14260 | 16260 | 20260 | 24260 | 30175 | 36175 | 42175 | 48175 | 56175 | 64175 | 72185 | 80185 | 90185 | -- | -- |
| 280 | | | | | | 14280 | 16280 | 20280 | 24280 | 30180 | 36180 | 42180 | 48180 | 56180 | 64180 | 72190 | 80190 | 90190 | -- | -- |
| 300 | | | | | | 14300 | 16300 | 20300 | 24300 | 30185 | 36185 | 42185 | 48185 | 56185 | 64185 | 72195 | 80195 | 90195 | -- | -- |

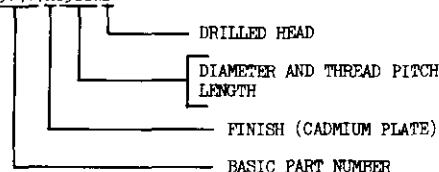
FED. SUP CLASS
5306

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|--|----|------------------------|---|--|
| P. A. Other Cust | AR | INTERNATIONAL INTEREST | TITLE BOLT, MACHINE, HEX HEAD FULLY THREADED, FINE THREAD, METRIC | MILITARY STANDARD DS51417(AR) |
| PROCUREMENT SPECIFICATION ANSI B18.2.3.5M-1979 | | SUPERSEDES: | | PAGE 2 OF 3 |

REQUIREMENTS:

1. MATERIAL. STEEL, PROPERTY CLASS 10.9, IN ACCORDANCE WITH ANSI B18.2.3.5M-1979.
2. FINISH. CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 3 (5.1 μ m THICK).
3. THREADS. STANDARD FINE PITCH M PROFILE TOLERANCE CLASS 6g, IN ACCORDANCE WITH FED-STD-H28/21. ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 21.
4. PART NUMBER. THE BASIC PART NUMBER IS FOLLOWED BY A FINISH CODE LETTER ("A" - CADMIUM PLATE), FOLLOWED BY A FIVE DIGIT NUMBER INDICATING DIAMETER AND THREAD PITCH AND LENGTH (TABLE II), FOLLOWED BY THE LETTER "D" IF A DRILLED HEAD IS REQUIRED, FOLLOWED BY THE LETTER "F" IF THE 15 mm HPX WIDTH ACROSS FLATS IS REQUIRED FOR THE M10 DIAMETER SIZE.

EXAMPLE: DS51417A0500RD



DS51417A0500RD INDICATES BOLT, MACHINE, HEX HEAD, FULLY THREADED, FINE THREAD, METRIC, M5X0.8 DIAMETER AND THREAD PITCH, 8 mm LENGTH, CADMIUM PLATED WITH DRILLED HEAD.

5. QUALITY ASSURANCE PROVISIONS. QUALITY ASSURANCE PROVISIONS IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
6. PACKAGING. PACKAGING IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
7. "E" DIMENSION SHALL BE 1/2 OF "H" DIMENSION. WHEN SPECIFIED, DRILL HEAD HOLES AS FOLLOWS:
 FOR 5 mm DIAMETER - DRILL THREE HOLES COUNTERSUNK 90° X 1 mm MINIMUM DIAMETER, WITHIN 0.3 mm OF CENTER OF HEX FLATS.
 FOR 6 mm AND 8 mm DIAMETERS - DRILL THREE HOLES COUNTERSUNK 90° X 1.4 mm MINIMUM DIAMETER, WITHIN 0.3 mm OF CENTER OF HEX FLATS.
 FOR 10 mm DIAMETER AND LARGER - DRILL THREE HOLES COUNTERSUNK 90° X 1.6 mm MINIMUM DIAMETER, WITHIN 0.3 mm OF CENTER OF HEX FLATS.
8. MAXIMUM DIAMETER OF WASHER FACE SHALL NOT EXCEED WIDTH ACROSS FLATS OF HEX HEAD OR BE LESS THAN THE "G" VALUES LISTED IN TABLE I.
9. HEAD MARKING SHALL BE IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.

NOTES:

1. DIMENSIONS. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS.
2. THIS SIZE IS NOT AN ISO STANDARD. UNLESS M10 BOLTS WITH 15 mm WIDTH ACROSS FLATS ARE SPECIFICALLY ORDERED, M10 BOLTS WITH 16 mm WIDTH ACROSS FLATS SHALL BE FURNISHED.
3. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON THE DATE OF INVITATIONS FOR BIDS, OR REQUEST FOR PROPOSAL.
4. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

| | | | | |
|---|----|---------------------------|---|----------------------------------|
| P. A. Other Cust | AR | INTERNATIONAL INTEREST | TITLE BOLT, MACHINE, HEX HEAD FULLY THREADED, FINE THREAD, METRIC | MILITARY STANDARD DS51417(AR) |
| PROCUREMENT SPECIFICATION ANSI B18.2.3.5M-1979 | | | SUPERSEDES: | PAGE 3 OF 3 |

User activities:
Army-MEReview activities:
Army-AV/EA
DLA-IS

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