

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION: NONE

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

Form Approved  
OMB No. 0704-0188

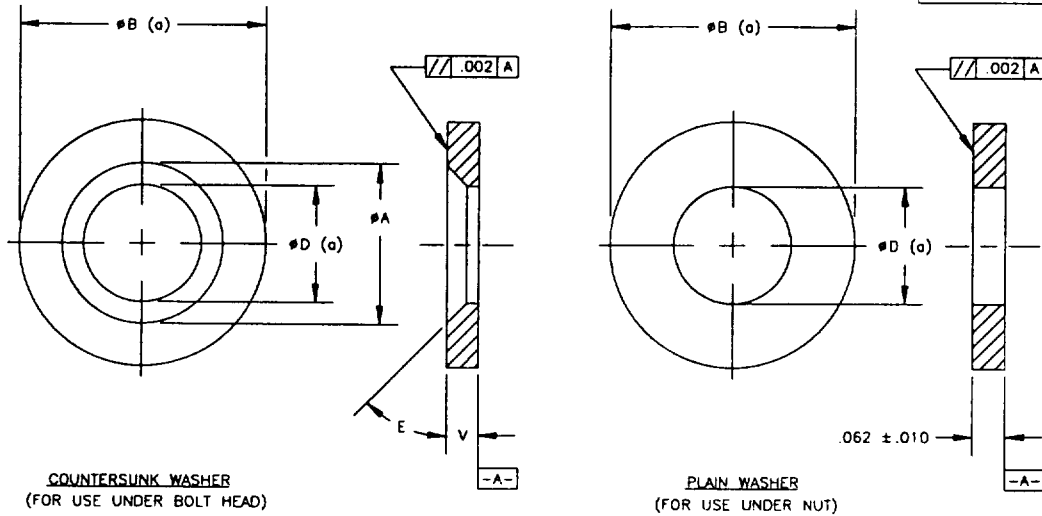


TABLE I. WASHER DIMENSIONS AND WEIGHTS

| NOMINAL SIZE | DASH NUMBER |       | $\phi B (a)$ |       | $\phi D (a)$ |       | $\phi A$ |       | V    |      | E        | FLATNESS<br>MAX | WASHER APPROX. WEIGHT LBS/100 |       |
|--------------|-------------|-------|--------------|-------|--------------|-------|----------|-------|------|------|----------|-----------------|-------------------------------|-------|
|              | CSK         | PLAIN | MAX          | MIN   | MAX          | MIN   | MAX      | MIN   | MAX  | MIN  | $\pm 1'$ |                 | CSK                           | PLAIN |
| .1900        | C3          | 3     | .387         | .377  | .195         | .191  | .290     | .280  | .069 | .057 | 45       | .007            | .15                           | .15   |
| .2500        | C4          | 4     | .491         | .481  | .255         | .251  | .350     | .340  | .069 | .057 | 45       |                 | .23                           | .24   |
| .3125        | C5          | 5     | .598         | .588  | .318         | .314  | .412     | .402  | .069 | .057 | 45       |                 | .33                           | .35   |
| .3750        | C6          | 6     | .712         | .702  | .380         | .376  | .507     | .497  | .085 | .071 | 45       |                 | .56                           | .49   |
| .4375        | C7          | 7     | .831         | .821  | .443         | .439  | .569     | .559  | .085 | .071 | 45       |                 | .79                           | .67   |
| .5000        | C8          | 8     | .950         | .940  | .505         | .501  | .632     | .622  | .085 | .071 | 45       |                 | 1.03                          | .88   |
| .5625        | C9          | 9     | 1.069        | 1.059 | .568         | .564  | .694     | .684  | .085 | .071 | 45       | .010            | 1.30                          | 1.12  |
| .6250        | C10         | 10    | 1.192        | 1.182 | .631         | .627  | .788     | .778  | .085 | .071 | 45       |                 | 2.31                          | 1.40  |
| .7500        | C12         | 12    | 1.433        | 1.423 | .756         | .752  | .913     | .903  | .085 | .071 | 45       |                 | 3.32                          | 2.03  |
| .8750        | C14         | 14    | 1.668        | 1.658 | .881         | .877  | 1.038    | 1.028 | .085 | .071 | 45       |                 | 6.71                          | 2.75  |
| 1.0000       | C16         | 16    | 1.905        | 1.895 | 1.006        | 1.002 | 1.163    | 1.153 | .119 | .099 | 45       |                 | 8.71                          | 3.59  |
| 1.1250       | C18         | 18    | 2.150        | 2.140 | 1.131        | 1.127 | 1.288    | 1.278 | .119 | .099 | 45       |                 | 11.00                         | 4.48  |
| 1.2500       | C20         | 20    | 2.391        | 2.381 | 1.256        | 1.252 | 1.445    | 1.435 | .119 | .099 | 45       | 13.61           | 5.68                          |       |
| 1.3750       | C22         | 22    | 2.637        | 2.627 | 1.381        | 1.377 | 1.570    | 1.560 | .119 | .099 | 45       | .015            | 19.84                         | 6.93  |
| 1.5000       | C24         | 24    | 2.884        | 2.874 | 1.506        | 1.502 | 1.695    | 1.685 | .119 | .099 | 45       |                 | 23.69                         | 8.31  |

(a) MINIMUM BEARING AREA BASED ON A BEARING STRESS OF 125% OF MATERIAL COMPRESSION YIELD (=45 KSI) AND 67% OF BOLT ULTIMATE TENSILE VALUE OF 260 KSI.

(A) ENTIRE SPECIFICATION REVISED

INCH-POUND

PREPARING ACTIVITY: DLA-IS  
CUSTODIANS: ARMY- AV NAVY- AS  
AIR FORCE- 11 DLA-

REVIEW:  
USER:  
PROJECT NUMBER: 5310-2001

DISTRIBUTION STATEMENT

MILITARY SPECIFICATION SHEET

TIT E

WASHER, COUNTERSUNK AND PLAIN,  
FOR USE WITH BOLTS AND NUTS UP  
TO AND INCLUDING 260 KSI F<sub>tu</sub>

SPECIFICATION SHEET NUMBER

MS21299

30 SEP 1994  
REV A

SUPERSEDING  
MS21299 28 JAN 1972

AMSC- N/A

FSC 5310

A. Approved for public release; distribution is unlimited.

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