

MIL-W-12133/3  
30 July 1984

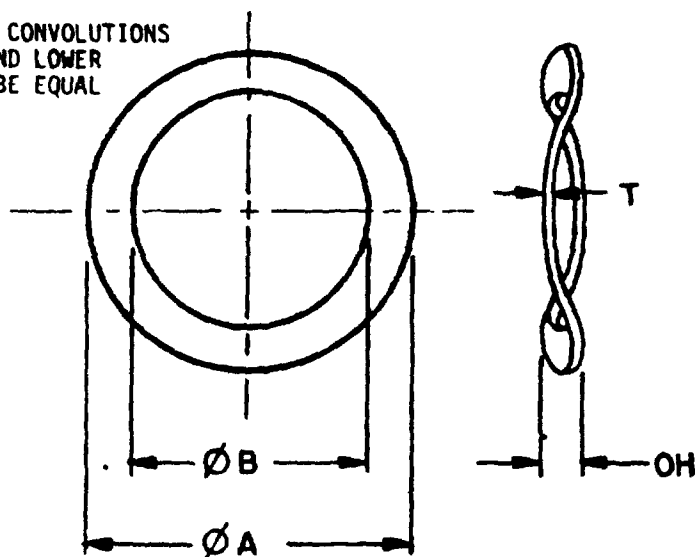
## MILITARY SPECIFICATION SHEET

## WASHER, SPRING TENSION, WAVE, COPPER-BERYLLIUM

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the washers described herein shall consist of this specification and the latest issue of MIL-W-12133.

3 EQUALLY SPACED CONVOLUTIONS  
RADIi OF UPPER AND LOWER  
CONVOLUTIONS TO BE EQUAL



## NOTES:

1. All dimensions are in inches.
2. The dimensions of the finished washers in the unplated condition shall be in accordance with Table I.

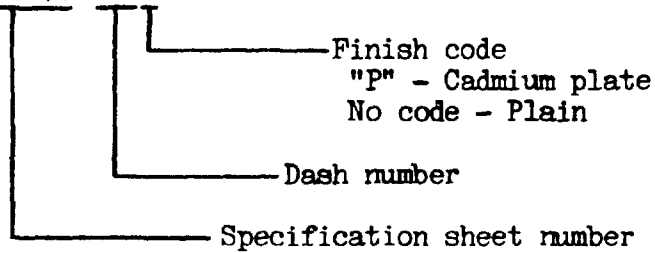
FIGURE 1. WASHER, SPRING TENSION, WAVE, COPPER-BERYLLIUM.

## MIL-W-12133/3

## REQUIREMENTS:

1. Material: Copper-Beryllium, Copper Alloy number 172 (UNS C17200), 1/4H Temper as specified in ASTM B194.
2. Protective coating and finish: Cadmium plate or Plain.
3. Part number: The part number consists of the letter "M", the basic number of this specification sheet, followed by a dash number taken from Table I and a finish code letter, "P" for Cadmium plate, No code for Plain.

EXAMPLE: M12133/3-075P



M12133/3-075P Indicates - Washer, Spring Tension, Wave, Copper-Beryllium; Copper Alloy number 172, (UNS C17200) 1/4H Temper; .155 OD; .075 ID; .006 thick; .017 free height; Cadmium Plate

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TABLE I. DASH NUMBERS AND DIMENSIONS.

DASH NO	$\varnothing$ A		$\varnothing$ B		T		OH		NOMINAL SIZE
	OUTSIDE DIAMETER		INSIDE DIAMETER		THICKNESS		FREE HEIGHT		
	MAX	TOL	MIN	TOL	NOM	TOL	NOM	TOL	
075	.155	+.000 -.005	.075	+.005 -.000	.006	+.0006	.017	+.003	.060
083	.165		.083		.006		.018		
095	.211		.095		.006		.018		
106	.220		.106		.006		.018		
125	.255		.125		.006		.021		
134	.270		.134		.006		.021		
152	.305		.152		.008	+.0008	.028		
176	.345		.176		.011	+.0010	.030		
203	.380		.203		.012	+.0013	.032		
266	.505		.266		.015	+.0013	.042		
332	.605		.332		.015		.052		
406	.705		.406		.022		.064		
469	.825		.469		.022	+.0020	.070		+.005
531	.955		.531		.022		.076		
656	1.175		.656		.028		.090		
781	1.395		.781		.028	+.0025	.095		+.010

MIL-W-12133/3

Custodians:

Army - AR  
Navy - OS  
Air Force - 99

Preparing activity:

Army - AR  
(Project 5310-1235)

Review activities:

Army - AV  
Navy - AS  
Air Force - 11, 82  
DLA - IS

User activities:

Army - AT, ME, MI  
Navy - MC, YD

Agent:

DLA - IS

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**NOTE** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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DEPARTMENT OF THE ARMY



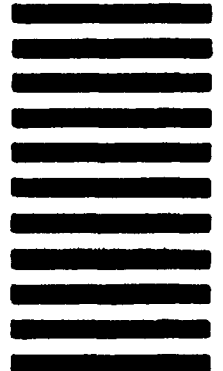
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# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

<b>1. DOCUMENT NUMBER</b> MIL-W-12133/3	<b>2. DOCUMENT TITLE</b> Washer, Spring Tension, Wave, Copper-Beryllium		
<b>3a. NAME OF SUBMITTING ORGANIZATION</b>  		<b>4. TYPE OF ORGANIZATION (Mark one)</b>  <input type="checkbox"/> VENDOR	
<b>b. ADDRESS (Street, City, State, ZIP Code)</b>  		<input type="checkbox"/> USER	
		<input type="checkbox"/> MANUFACTURER	
		<input type="checkbox"/> OTHER (Specify): _____	
<b>5. PROBLEM AREAS</b>			
a. Paragraph Number and Wording:			
b. Recommended Wording:			
c. Reason/Rationale for Recommendation:			
<b>6. REMARKS</b>     			
<b>7a. NAME OF SUBMITTER (Last, First, MI) - Optional</b>		<b>8. WORK TELEPHONE NUMBER (Include Area Code) - Optional</b>	
<b>7b. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional</b>		<b>9. DATE OF SUBMISSION (YYMMDD)</b>	

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