

MIL-B-2054E

2 May 1969  
 SUPERSEDING  
 MIL-B-2054D  
 29 March 1965

## MILITARY SPECIFICATION

## BOWLS, FOOD MIXING, CORROSION-RESISTING STEEL

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

## 1. SCOPE

1.1 Scope.- This specification covers one type of corrosion-resisting steel food mixing bowl.

\* 1.2 Classification.- The food mixing bowls shall be of the following sizes as specified (see 6.2).

	<u>Diameter</u>	<u>Capacity</u>
Size 1	21 inch	7-1/2 gallons
Size 2	30 inch	20 gallons

## 2. APPLICABLE DOCUMENTS

\* 2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

## SPECIFICATIONS

## FEDERAL

- UU-P-268 - Paper, Kraft, Untreated, Wrapping.
- PPP-B-636 - Box, Fiberboard.
- PPP-F-320 - Fiberboard; Corrugated and Solid, Sheet Stock (Container Grade) and Cut Shapes.

## STANDARDS

## MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
- MIL-STD-129 - Marking for Shipment and Storage.
- MIL-STD-147 - Palletized and Containerized Unit Loads 40" X 48" Pallets, Skids, Runners, or Pallet-Type Base.

FSC 7330

MIL-B-2054E

DRAWING

ARMY NATICK LABORATORIES

5-11-343 - Bowl, Food Mixing.

(Miniature copy of Drawing 5-11-343, identified as figure 1, is attached for information purposes only.)

(Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

- \* 2.2 Other publications.- The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issue in effect on date of invitation for bids or request for proposal shall apply.

NATIONAL SANITATION FOUNDATION (NSF)

Standard No. 2 - Food Service Equipment.

Listing of Food Service Equipment.

(Application for copies should be addressed to the National Sanitation Foundation, P.O. Box 1468, Ann Arbor, Michigan 48106.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

Specification A167-63- Corrosion-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19106.)

NATIONAL CLASSIFICATION BOARD

National Motor Freight Classification.

(Application for copies should be addressed to the National Classification Board, 1616 P Street, N.W., Washington, D. C. 20036.)

MIL-B-2054E

UNIFORM CLASSIFICATION COMMITTEE

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, 202 Union Station, Chicago, Illinois 60606.)

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal Agencies.)

3. REQUIREMENTS

\* 3.1 First article.- When specified (see 6.2) before production is commenced, a sample food mixing bowl of the size required shall be submitted or made available to the contracting officer or his authorized representative for approval in accordance with 4.2. The approval of the preproduction sample authorizes the commencement of production but does not relieve the supplier of the responsibility for compliance with all applicable provisions of this specification. The preproduction sample shall be manufactured in the same facilities to be used for the manufacture of the production items.

3.2 Standard product.- The mixing bowls delivered under this specification shall be the manufacturer's commercially current standard product, except for any changes necessary to comply with specification requirements.

3.3 NSF Standard.- The mixing bowls shall conform to the applicable requirements of NSF Standard No. 2.

3.3.1 NSF Certification.- The supplier shall submit satisfactory evidence to the contracting officer or his authorized representative that the mixing bowls he proposes to furnish under this specification meet the applicable requirement of NSF Standard No. 2 as follows:

(1) A listing in the current edition of the NSF "Listing of Food Service Equipment" or a display of the NSF seal on the finished mixing bowls shall be submitted prior to approval of the preproduction sample, if one is submitted, or prior to approval of the first shipment, or

MIL-B-2054E

(2) A certified test report from a recognized independent testing laboratory acceptable to the medical department of the service for which the mixing bowls are being procured, indicating that the mixing bowls have been tested and conform to NSF Standard No. 2 shall be submitted prior to approval of the preproduction sample, if one is submitted, or prior to commencing production.

3.4 Materials.- Corrosion-resisting steel shall conform to the chemical composition of type 302 or 304 of ASTM A167-63.

\* 3.5 Design and construction.- The design and construction of the bowls shall conform to Drawing 5-11-343 and as specified herein, except the bowls may have a 1-inch vertical flat at the top edge under the bead and may have a flat bottom. The bowls shall be formed from a single sheet of metal specified in 3.4 and shall be seamless and without welds.

3.6 Marking for identification.- The manufacturer's name, trade name, or trade-mark of such known characters as to be readily identifiable with the manufacturer shall be placed on all bowls in accordance with the manufacturer's standard practice. The surface opposite markings shall show no signs of penetration, unevenness, or distortion.

\* 3.7 Finish.- All burrs, rough edges, and slivers shall be removed. The bowls shall be finished in accordance with the manufacturer's standard practice, provided this conforms to NSF Standard No. 2.

\* 3.8 Workmanship.- The finished bowls shall have no die, trimming, or tool marks and shall not be dented, fractured, or punctured. There shall be no scratches, scale, or laminations on the bowls and the bead shall be evenly rolled. Metal forming shall not cause wrinkles or waves.

#### 4. QUALITY ASSURANCE PROVISIONS

\* 4.1 Responsibility for inspection.- Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

MIL-B-2054E

- \* 4.2 First article inspection.- When a preproduction sample is required, it shall be examined for defects listed in table I and dimensions specified. The presence of any defects listed in table I or any dimensions not within specified requirements shall be cause for rejection of the preproduction sample as part of the overall contract.
- \* 4.3 Inspection.- Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.
- \* 4.3.1 Component and material inspection.- In accordance with 4.1 above, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.
- 4.3.2 End item inspection.- The inspection lot shall consist of all bowls of one size submitted for inspection at one time. The sample unit for this inspection shall be one finished bowl.
- \* 4.3.2.1 Visual examination.- Examination of the end item shall be in accordance with the classification of defects set forth in table I. The inspection level shall be level II with an acceptable quality level (AQL) of 2.5 for major defects and 6.5 for total defects, expressed in terms of defects per hundred units.

TABLE I.- Classification of defects

Examine	Defect	Classification	
		Major	Minor
Finish	Burrs, rough edges, or slivers.	X	
Construction and workmanship (general)	Not one piece construction.	X	
	Scale or lamination.	X	
	Trimming marks, die marks, or tool marks.		X
	Dent, puncture, or fracture.	X	
	Edge not evenly rolled around top.		X
	Wrinkles or waves in metal forming.	X	
	Deep scratch (finger nail will catch), or gouge on inside of bowl.	X	
	Light scratch, handling marks, or not clean.		X

MIL-B-2054E

TABLE I.- Classification of defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Identification marking	Missing, illegible, or incorrect.		X
	Indented marking penetrates through metal, or is uneven or distorted.	X	

4.3.2.2 Dimensional examination.- Dimensional examination shall be made of the end item to determine compliance with this specification. Any dimension that is not within the specified requirements shall constitute a defect. The inspection level shall be S-2 and the AQL shall be 4.0, expressed in terms of defects per hundred units.

- \* 4.3.3 Examination of preparation for delivery.- An examination shall be made to determine that packaging, packing, and marking as required by section 5 of this specification are complied with. Defects shall be scored in accordance with table II. The sample size shall be one shipping container fully prepared for delivery. The inspection lot shall be the number of containers offered for inspection at one time. The inspection level shall be S-2 and the AQL shall be 4.0, expressed in terms of defects per hundred units.

TABLE II.- Examination of preparation for delivery

Examine	Defect
Markings	Missing; incorrect; illegible; or improper size, location, sequence, or method of application.
Materials	Component missing, damaged, or otherwise defective.
Contents	Number per container is more or less than required.

4.3.3.1 Examination of shipping containers.- When shipping containers are required to be in accordance with PPP-B-636, examination for defects in closure, waterproofing, and strapping shall be in accordance with PPP-B-636.

MIL-B-2054E

- \* 4.4 Code and standards compliance.- Proof of compliance with NSF requirements of 3.3 shall be available to the Government representative.

## 5. PREPARATION FOR DELIVERY

5.1 Packaging.- Packaging shall be level A or C as specified (see 6.2).

5.1.1 Level A.- Six size 1 or four size 2 bowls shall be nested, with each bowl interleaved with minimum 40 basis weight kraft paper conforming to grade B of UU-P-268.

5.1.2 Level C.- The bowls shall be packaged to afford adequate protection against damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

5.2 Packing.- Packing shall be level A, B, or C as specified (see 6.2).

5.2.1 Level A.- Six size 1 bowls or four size 2 bowls, packaged as specified in 5.1, shall be packed inverted in a snug-fitting fiberboard shipping container conforming to style RSC-L, V2s of PPP-B-636. The inside of each shipping container shall be fitted with a taped liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-F-320. Each shipping container shall be closed, waterproofed by means of tape, and reinforced with flat strapping or tape banding in accordance with the appendix of PPP-B-636.

5.2.2 Level B.- Six size 1 bowls or four size 2 bowls, packaged as specified in 5.1, shall be packed inverted in a snug-fitting fiberboard shipping container conforming to style RSC-L, type CF, variety SW, or type SF, class domestic of PPP-B-636. The inside of each shipping container shall be fitted with a taped liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Each shipping container shall be closed in accordance with method II of the appendix of PPP-B-636.

5.2.2.1 When specified (see 6.2) the shipping container shall be V3c or V3s, fabricated and closed in accordance with the appendix of PPP-B-636. The shipping container material may also be grade V4s of PPP-F-320.

5.2.3 Level C.- Bowls, packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such supplies. Containers shall be in accordance with Uniform Freight Classification Rules or National Motor Freight Rules, as applicable.

MIL-B-2054E

5.3 Palletization.- Unless otherwise specified (see 6.2) bowls packed as specified shall be palletized in accordance with load type I of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern used shall be approved by the contracting officer.

5.4 Marking.- In addition to any special marking required by the contract or order, shipping containers shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use.- The mixing bowls covered herein are intended primarily for hand mixing and preparing foods such as salads in permanent and temporary installations.

\* 6.2 Ordering data.- Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Size of bowl required (see 1.2).
- (c) First article.- When a preproduction sample is required (see 3.1).
- (d) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- (e) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- (f) When palletization is not required (see 5.3).

6.3 The margins of this specification are marked with an asterisk (\*) to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and suppliers are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.



MIL-B-2054E

Custodians:

Army - GL

Navy - SA

Air Force - 84

Review activities:

Army - MD

Navy - SA, MC

Air Force - 84

User activities:

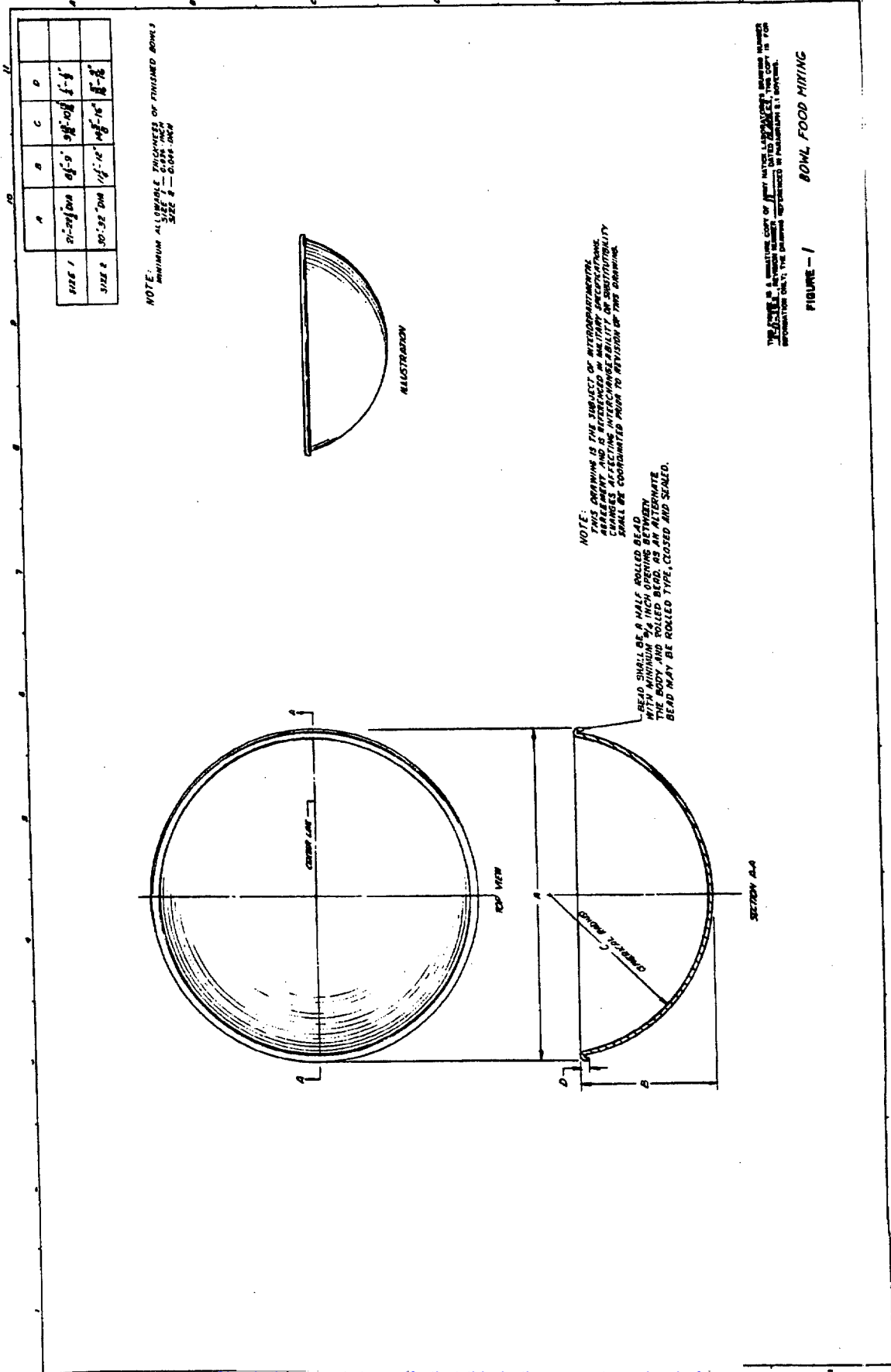
Navy - MS, CG

Preparing activity:

Army - GL

Project No. 7330-0314

MIL-B-2054E



<b>SPECIFICATION ANALYSIS SHEET</b>		Form Approved Budget Bureau No. 22-R255
<p><b>INSTRUCTIONS:</b> This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
<p><b>SPECIFICATION</b> Bowls, Food Mixing, Corrosion-Resisting Steel MIL-B-2054E</p>		
<p><b>ORGANIZATION</b></p>		
<p><b>CITY AND STATE</b></p>		<p><b>CONTRACT NUMBER</b></p>
<p><b>MATERIAL PROCURED UNDER A</b>  <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT      <input type="checkbox"/> SUBCONTRACT</p>		
<p><b>1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?</b>  <b>A. GIVE PARAGRAPH NUMBER AND WORDING.</b></p>		
<p><b>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</b></p>		
<p><b>2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</b></p>		
<p><b>3. IS THE SPECIFICATION RESTRICTIVE?</b>  <input type="checkbox"/> YES      <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<p><b>4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)</b></p>		
<p><b>SUBMITTED BY (Printed or typed name and activity - Optional)</b></p>		<p><b>DATE</b></p>

DD FORM 1426  
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.