

MIL-M-17194D  
1 August 1986  
SUPERSEDING  
MIL-M-17194C  
8 March 1955  
(See 6.5)

## MILITARY SPECIFICATION

### METAL, EXPANDED, STEEL

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

#### 1. SCOPE

1.1 Scope. This specification covers expanded metal for general and ship-board use.

1.2 Classification. Expanded metal shall be of the following types, classes, and grades, as specified (see 6.2):

- Type I - Expanded.
- Type II - Expanded and flattened.
- Class 1 - Uncoated.
- Class 2 - Hot-dip zinc (galvanized) coated.
- Class 3 - Corrosion resisting steel.
- Grade A - 0.0025 inch minimum coating thickness.
- Grade B - 0.0012 inch minimum coating thickness.

#### 2. APPLICABLE DOCUMENTS

##### 2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, SEA 5523, Department of the Navy, Washington, DC 20362-5101 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

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MIL-M-17194D

## SPECIFICATIONS

## MILITARY

- MIL-C-16173 - Corrosion Preventive Compound, Solvent Cutback, Cold-Application.
- MIL-C-22235 - Corrosion Preventive Oil, Nonstaining.

## STANDARDS

## MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
- MIL-STD-163 - Steel Mill Products Preparation for Shipment and Storage.

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

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DoDISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- A 167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.  
(DoD adopted)
- A 568 - Standard Specification for Steel, Sheet, Carbon, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for. (DoD adopted)
- A 700 - Standard Practices for Packaging, Marking, and Loading Methods for Steel Products for Domestic Shipment.  
(DoD adopted)

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

## MIL-M-17194D

## 3. REQUIREMENTS

3.1 Material. Expanded metal shall be made from carbon steel sheets UNS Alloy G 1035 or less as specified in ASTM A 568 or corrosion resisting sheet as specified in ASTM A 167.

3.2 General requirements.

3.2.1 Expanded metal shall be either class 1, uncoated, or class 2, hot-dip zinc-coated (galvanized) or class 3, corrosion resisting steel, as specified (see 3.3, 6.2 and 6.3).

3.2.2 Expanded metal shall be manufactured from sheet steel in thicknesses corresponding to tables I, II, III, and IV as specified (see 6.2). Unless otherwise specified (see 6.2), the steel shall be sheared so that each sheet will be expanded into uniform diamond-shaped openings, the longer diagonals of which shall be parallel to the rolling direction of the sheet. The strands which form the sides of the openings shall be straight and shall be rectangular in cross-section. Each opening shall be integral with adjoining openings by means of unsheared bonds (bridges) of the original sheet.

TABLE I. Carbon steel sizes, thickness of sheet, and weight for type 1 (expanded), class 1 (uncoated) (see figure 1).

Commercial style designation	Size of mesh		Width of strand (c)	Weight per square foot uncoated <sup>2</sup>
	Dimensions center to center <sup>1</sup> of bridges			
	Width (a)	Length (b)		
	Inches	Inches	Inch	Pounds
1/2 number 18 _____	0.48	1.2	0.084 - 0.092	(0.70 - 0.77)
3/4 number 13 _____	.92	2.0	.090 - .100	0.80
3/4 number 10 _____	.92	2.0	.136 - .150	1.20
3/4 number 9 _____	.92	2.0	.136 - .150	1.80
	1.33	5.33	.259 - .269	3.00
3 pound grating _____	1.44	5.00	.232 - .242	3.00
4 pound grating _____	1.33	5.33	.292 - .304	4.00
1-1/2 number 13 _____	1.33	3.0	.100 - .116	.60
1-1/2 number 10 _____	1.33	3.0	.130 - .142	.79
1-1/2 number 9 _____	1.33	3.0	.130 - .142	1.20
1-1/2 number 6 _____	1.33	3.0	.195 - .210	2.50
4.27 pound grating _____	1.412	4.0	.292 - .304	4.27
3.14 pound grating _____	2.00	6.00	.305 - .317	3.14

<sup>1</sup> A tolerance of plus or minus 10 percent is permitted in dimensions, center to center.

<sup>2</sup> A variation in weight per square foot of plus or minus 5 percent is permissible, based on the weight of any sheet or bundle.

MIL-M-17194D

TABLE II. Carbon steel sizes, strand sizes, and weight for type II (expanded and flattened), class 1 (uncoated)(see figure 2).

Commercial style designation	Size of mesh		Width of strand (c)	Weight per square foot uncoated <sup>2</sup>
	Dimensions center to center <sup>1</sup> of bridges			
	Width (a)	Length (b)		
	Inches	Inches	Inch	Pounds
1/4 number 18 _____	0.25	1.031	0.080	1.08
1/2 number 40 _____	.462	1.26	.065	.38
1/2 number 18 _____	.462	1.26	.100	.70
1/2 number 16 _____	.462	1.26	.089	.80
1/2 number 13 _____	.462	1.26	.111	1.40
3/4 number 16 _____	.850	2.12	.110	.55
3/4 number 13 _____	.923	2.12	.137	.76
3/4 number 9 _____	.923	2.12	.157	1.71
1 number 16 _____	1.05	2.562	.106	.41
1-1/2 number 16 _____	1.33	3.20	.127	.38
1-1/2 number 13 _____	1.33	3.20	.130	.57
1-1/2 number 9 _____	1.33	3.20	.165	1.14

<sup>1</sup> A tolerance of plus or minus 10 percent is permitted in dimensions, center to center.

<sup>2</sup> A variation of weight per square foot of plus or minus 5 percent is permissible, based on the weight of a bundle.

MIL-M-17194D

TABLE III. Stainless steel styles, weights, dimensions and sheet sizes for type 1 (class 3).

Style designation	Weight per square foot <sup>1</sup>	Diamond size <sup>2</sup>		Strand <sup>2</sup> (c)	Standard sheet size		U.S. Standard steel used
		Width (a)	Length (b)		Width	Length	
		Inches	Inches		Feet	Feet	
1/2 No. 18	0.73	0.480	1.20	0.085	3 or 4	8	18
1/2 No. 16	.91	.480	1.20	.085	3 or 4	8	16
3/4 No. 18	.47	.900	2.00	.100	3 or 4	8	18
3/4 No. 16	.60	.900	2.00	.100	3 or 4	8	16
3/4 No. 13	.91	.900	2.00	.100	3 or 4	8	13
3/4 No. 9	2.05	.900	2.00	.150	3 or 4	8	10
1-1/2 No. 16	.43	1.33	3.00	.115	3 or 4	8	16
1-1/2 No. 13	.68	1.33	3.00	.115	3 or 4	8	13
1-1/2 No. 9	1.37	1.33	3.00	.155	3 or 4	8	10

<sup>1</sup> A variation in weight per square foot of plus or minus 5 percent is permissible, based on the weight of any sheet or bundle.

<sup>2</sup> A tolerance of plus or minus 10 percent is permitted in dimensions.

MIL-M-17194D

TABLE IV. Stainless steel styles, weights, dimensions and sheet sizes for type II (class 3).

Style designation	Weight per square foot <sup>1</sup>	Diamond size <sup>2</sup>		Strand <sup>2</sup> (c)	Standard sheet size		U.S. Standard steel used
		Width (a)	Length (b)		Width	Length	
	Pounds	Inches	Inches	Inch	Feet	Feet	Gauge
1/2 No. 18	0.70	0.475	1.24	0.100	3 or 4	8	18
1/2 No. 16	.90	.475	1.24	.100	3 or 4	8	16
3/4 No. 18	.46	.900	2.100	.118	3 or 4	8	18
3/4 No. 16	.57	.900	2.100	.118	3 or 4	8	16
3/4 No. 13	.88	.900	2.100	.118	3 or 4	8	13
3/4 No. 9	1.96	.900	2.100	.165	3 or 4	8	10
1-1/2 No. 16	.42	1.330	3.100	.130	3 or 4	8	16
1-1/2 No. 13	.66	1.330	3.100	.130	3 or 4	8	13
1-1/2 No. 9	1.32	1.330	3.100	.165	3 or 4	8	10

<sup>1</sup> A variation in weight per square foot of plus or minus 5 percent is permissible, based on the weight of any sheet or bundle.

<sup>2</sup> A tolerance of plus or minus 10 percent is permitted in dimensions.

## MIL-M-17194D

3.2.3 Expanded metal shall be free from burrs and slivers. Type II expanded metal shall be deburred prior to zinc coating.

3.2.4 Type II flattened expanded metal shall have the strands and bonds in the same plane as a result of passing through flattening rolls.

3.2.5 Only mild carbon steels shall be zinc coated.

3.3 Zinc coating. Class 2 zinc coated (galvanized) expanded metal shall be completely and uniformly zinc coated (galvanized) by the hot-dip process, after shearing, expanding and deburring, and shall be free from excessive accumulations of zinc in the apexes of diamond openings, and shall be free from bare spots. The zinc coated (galvanized) surface of the metal shall be uniformly smooth and free from dross, flux, and oxide residue or other discoloration producing material (see 4.6.1). Yellowish discoloration produced by sal ammoniac fumes shall not be cause for rejection. Zinc "feathers" that may be removed as the result of normal handling, which does not result in exposure of the basis metal, shall not be cause for rejection.

3.3.1 Paint or paint-like material shall not be used to coat bare areas. Unless approved for each individual contract or order by the Government inspector, heat-applied galvanizing repair compounds shall not be used to cover bare areas.

3.3.2 Thickness of coating. The thickness of coating shall be 0.0025 inch minimum for grade A expanded metal and 0.0012 inch minimum for grade B expanded metal on all surfaces except at the edges (corners) of the strands when tested as specified in 4.6.1. The requirements for thickness of coating using the microscopic method specified in 4.6.2 shall be 0.0025 inch minimum average thickness for grade A expanded metal and 0.0012 inch minimum average thickness for grade B expanded metal.

3.4 Sheet size. Unless otherwise specified (see 6.2), type I expanded metal shall be furnished in sheets 6 feet wide by 8 feet long and type II, flattened, expanded metal shall be furnished in sheets 4 feet wide by 8 feet long. Type I and type II expanded metal shall be furnished in accordance with the weights and dimensions as specified in tables I, II, III, and IV respectively.

3.5 Tolerances for type I (expanded only).

3.5.1 Strand width. Strand width shall not vary in excess of plus or minus 10 percent of the nominal width.

3.5.2 Sheet width. Sheet width shall be not less than 1/4 inch below ordered width and shall not exceed 1/8 inch per foot of sheet width.

3.5.3 Sheet length. Sheet length on 96-inch length sheets shall not vary by an amount greater than plus 3/4 inch or minus 0 inch.

3.5.4 Sheet camber. The greatest deviation of a side edge from a straight line shall not exceed 1/4 inch in 96 inches.

3.5.5 Sheet taper. Sheet edges shall not deviate from parallel by more than 3/8 inch in 96 inches.

## MIL-M-17194D

3.5.6 Sheet squareness. Sheet edges shall be such that any intersecting side and edge shall not be out of square in excess of 1/8 inch per foot.

3.5.7 Sheet flatness. Sheets shall be free from waves or buckles that are in excess of 3/4 inch from a plane surface.

3.5.8 End openings. Each sheet shall have at least one end with closed diamond openings together with full length bonds.

### 3.6 Tolerances for type II (expanded and flattened).

3.6.1 Strand width. Strand width shall not vary in excess of plus or minus 10 percent of the nominal width.

3.6.2 Sheet thickness. Sheet thickness after flattening shall not be greater than 90 percent and not less than 80 percent of the nominal gauge thickness specified for the steel sheet from which the item was produced.

3.6.3 Sheet width. Sheet width after flattening shall not be less than 1/4 inch below nominal width and shall not exceed 1/8 inch per foot of nominal width.

3.6.4 Sheet length. Sheet length after flattening shall not vary from the nominal length by an amount greater than plus 1/4 or minus 0 inch.

3.6.5 Sheet camber. The greatest deviation of a side edge from a straight line after flattening shall not exceed 1/4 inch in 96 inches.

3.6.6 Sheet taper. Sheet edges shall not deviate from parallel by more than 3/8 inch in 96 inches.

3.6.7 Sheet squareness. Ends of sheets, after shearing, shall not be more than 1/16 inch per foot out of square, in relation to the side of the sheet used to gauge the shearing.

3.6.8 Sheet flatness. Sheets shall be free from waves or buckles that are in excess of 3/8 inch from a plane surface.

3.6.9 End openings. After flattening each sheet shall be sheared on one end as close as practicable to the centerline of a row of bonds.

3.7 Workmanship. The strands shall be substantially uniform in width and thickness and shall be smooth and free from sharp edges. Broken strands, weld-repaired strands, laminations, irregular-shaped openings, and any other defects which may affect serviceability shall not be acceptable.

## 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor 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

## MIL-M-17194D

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.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

#### 4.2 Sampling.

4.2.1 Inspection lot. Expanded metal sheets of the same material, type, class, and grade and of the same dimensions, presented at one time and manufactured under essentially the same conditions shall be considered a lot for purposes of acceptance inspection and tests.

4.2.2 Sampling procedures for visual and dimensional inspection. Plans A, B, or C shall be used as specified by the contracting agency (see 6.2). When no plan is specified, plan C is invoked.

4.2.2.1 Plan A, inspection at time and place of manufacture. The inspection shall include measuring any dimensions of the product which are not controlled by automatic devices attached to the process machinery, as well as checking the controlled dimension or dimensions by examination of at least one-fifth of the number of sample pieces as specified in table V. If this production inspection shows that objectionable defects are present or that one or more dimensions are outside the specification limits, the entire production lot shall be inspected for those defects under the warehouse procedures specified in 4.2.2.2.

TABLE V. Sampling for visual and dimension inspection AQL  
(approx.) = 1.5 percent defective.

Number of expanded metal sheets in inspection lot	Number of expanded metal sheets in sample	Acceptance number (defectives)	Rejection number (defectives)
15 and under	5	0	1
16 to 40	7	0	1
41 to 110	10	0	1
111 to 300	15	0	1
301 to 500	25	1	2
501 to 800	35	1	2
801 to 1300	50	2	3
1301 and over	75	3	4

## MIL-M-17194D

4.2.2.2 Plan B, inspection of manufacturer's finished stock and inspection at a warehouse. A random sample of expanded metal sheets shall be selected from each inspection lot in accordance with table IV for the inspection specified in 4.4.

4.2.2.3 Plan C. When plan C is specified, material shall be inspected in conformance with MIL-STD-105, inspection level II, acceptable quality level (AQL) of 1.5 percent, unless otherwise specified.

4.3 Sampling for coating thickness test. A random sample of expanded metal sheets shall be selected from each inspection lot of class 2 material, in accordance with table VI, and subjected to the zinc-coating thickness test specified in 4.6 and 4.6.1.

TABLE VI. Sampling for lot acceptance test.

Number of expanded metal sheets in inspection lot	Number of expanded metal sheets for test
40 or under	1
41 to 300	2
301 to 1300	3
1301 and over	4

#### 4.4 Inspection.

4.4.1 Visual and dimensional inspection. Each of the sample expanded metal sheets selected in accordance with table V shall be visually and dimensionally inspected to verify compliance with this specification. Any expanded metal sheet in the sample containing one or more visual or dimensional defects shall be rejected, and if the number of defective expanded metal sheets in any sample exceeds the acceptance number for that sample, the lot represented by the sample shall be rejected.

#### 4.5 Lot acceptance test for thickness of zinc-coated expanded metal.

4.5.1 Testing of sample expanded metal sheets for lot acceptance. Each of the sample expanded metal sheets selected in accordance with table VI shall be thickness tested in accordance with 4.6 and 4.6.1 to verify compliance with the zinc-coating requirement of this specification. Any sample expanded metal sheet which does not meet the requirement for zinc-coating thickness as determined by the microscopic method of 4.6.2 shall cause rejection of the lot represented by the sample.

4.6 Coating thickness test specimens. Three test specimens in the form of single strands having a length of one or more sides of diamond openings shall be selected from each sample sheet at or near diagonally opposite corners and at the center of the sheet. The specimen strands shall be selected on the basis of visual appearance to represent the minimum coating thickness in the specified location. When specified (see 6.2), each sample sheet from which strands have been removed may be included in the lot to be shipped provided they meet the requirements of this specification. Such sheets shall be distinctly tagged to indicate that they shall be used for construction requiring less than a full size sheet.

## MIL-M-17194D

4.6.1 Coating thickness test method for lot acceptance. Each single strand test specimen shall be visually inspected and that surface of the strand observed to have the most nearly uniform coating shall be the tension surface when the strand is subjected to bending. Each specimen shall be deformed by bending so that the zinc-coating is separated from the basis metal at the approximate midpoint of the strand. The separated zinc-coating may be further stripped from the basis metal by means of a knife or similar instrument until a flake of convenient size is obtained. The thickness of the zinc-coating particle shall be determined in at least four locations by measurement with micrometer calipers of which the spindle and anvil are flat or conical in shape and the ends are ground to 1/16 inch maximum radius. If the zinc-coating particle is not of sufficient size to permit four measurements, an additional particle may be removed from the strand in the same area and the thickness determined. If all measurements on each sample specimen conform to the minimum thickness requirement for the particular grade represented, the lot shall be considered satisfactory. If any measurement fails to conform to the minimum thickness requirement for the particular grade it represents, an equal number of sample strands, similar in appearance and selected adjacent to the original sample strands shall be sent to a Government laboratory designated by the bureau or agency concerned for the microscopic measurement method of coating thickness (see 4.6.2).

4.6.2 Microscopic test method. The test specimens representing lots failing to meet the thickness of coating requirements using the method of 4.6.1 shall be prepared for microscopic measurement of coating thickness. The strand specimens shall be cut so that cross-section surfaces are exposed at approximately the midpoint of the strand length. The specimens shall be prepared, using acceptable metallographic methods and the coating thickness measured microscopically at a suitable magnification. The minimum and maximum coating thicknesses shall be measured on each of the four exposed surfaces, but not at the corners. The average coating thickness of each specimen shall be computed and compared with the requirement. If any average thickness value is less than the specified thickness, the lot represented by the specimen shall be rejected.

4.7 Examination of preparation for delivery. An examination shall be made to determine that preservation, packaging, packing, and marking requirements of the applicable contract or order are complied with. Defects shall be scored in accordance with the list below. The lot size shall be the number of shipping containers fully prepared for delivery, with the exception that containers need not be sealed or closed, non interior containers or case liners sealed (if applicable). Examination shall be made in two phases; first an interior examination, and second an examination of containers fully prepared for delivery. The sample unit for each of the two phases shall be one container fully prepared for delivery as set forth above. The inspection level shall be S-2 in accordance with MIL-STD-105, with an AQL of 4.0 defects per 100 units.

<u>Examine</u>	<u>Defects</u>
Marking (interior package or container and exterior container as applicable)	Omitted, incorrect, illegible, improper size, location, sequence or method of application.
Materials	Component missing, damaged, defective or not as specified.

MIL-M-17194D

ExamineDefects

Workmanship (as applicable)	Inadequate or improper packaging or packing, such as closure of interior packages or containers, closure of case liners or container flaps, taping of seams, corners, and manufacturer's joint, closure of alternate containers; loose strapping or tape banding; inadequate stapling; bulging or distortion of containers.
Contents (interior and exterior container as applicable)	Number per container not as specified.
Weight (exterior containers)	Weight per container not as specified.
Preservation (as applicable)	Preservation missing, improperly applied or incorrect type.

4.8 Inspection of packaging. Sample packages and packs, and the inspection of the preservation-packaging, packing and marking for shipment and storage shall be in accordance with the requirements of section 5 and the documents specified therein.

## 5. PACKAGING

(The packaging requirements specified herein apply only for direct Government acquisition.)

5.1 Preservation. Preservation shall be level A or C, as specified (see 6.2). Class 3, corrosion resisting steel shall not be coated with preservative compound.

5.1.1 Level A. Unless otherwise specified in the contract or order, class 1 expanded metal shall be coated with a preservative compound in accordance with grade 3 of MIL-C-16173 or type A of MIL-C-22235.

5.1.2 Level C. Expanded metal shall be preserved for shipment in accordance with ASTM A 700.

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

5.2.1 Level A. Expanded metal, separated for size, class, type, and grade shall be packed for shipment in secured lifts on nominal 2 by 4 inch skids. Skidding, strapping, and maximum permissible weight of the lifts shall be in accordance with MIL-STD-163.

5.2.2 Level C. Expanded metal shall be packed in accordance with ASTM A 700.

5.2.3 Marking. In addition to any special marking required by the contract or order (see 6.2), marking for shipment shall be in accordance with MIL-STD-163.

MIL-M-17194D

## 6. NOTES

6.1 Intended use. Expanded metal covered by this specification is intended for partition bulkheads (nonstructural), top side stowage baskets, floor gratings, and other general uses.

6.2 Ordering data. Acquisition documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Type, class, grade and AISI or UNS designation required (see 1.2, 3.2 and 6.3).
- (c) Direction of shear, if not as specified (see 3.2.2).
- (d) The length, width, and thickness of uncoated mesh, and weight per square foot uncoated (see tables I, II, III, and IV).
- (e) Size of sheet required if other than sizes specified in 3.4.
- (f) Inspection plan (see 4.2.2).
- (g) Whether or not sheets from which samples have been selected for coating thickness test may be included as part of material shipped (see 4.6).
- (h) Whether for domestic shipment, immediate use; or for overseas shipment or domestic shipment involving storage (see 5.1 and 5.2).
- (i) Special marking required (see 5.2.3).

6.3 For Naval shipboard applications of class 2, galvanized expanded metal grade A thickness of coating should be ordered.

6.4 Subject term (key word) listing.

Carbon steel  
Expanded metal  
Stainless steel  
Zinc-coated carbon steel

6.5 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

## Custodians:

Army - MR  
Navy - SH  
Air Force - 99

## Preparing activity:

Navy - SH  
(Project 5680-0122)

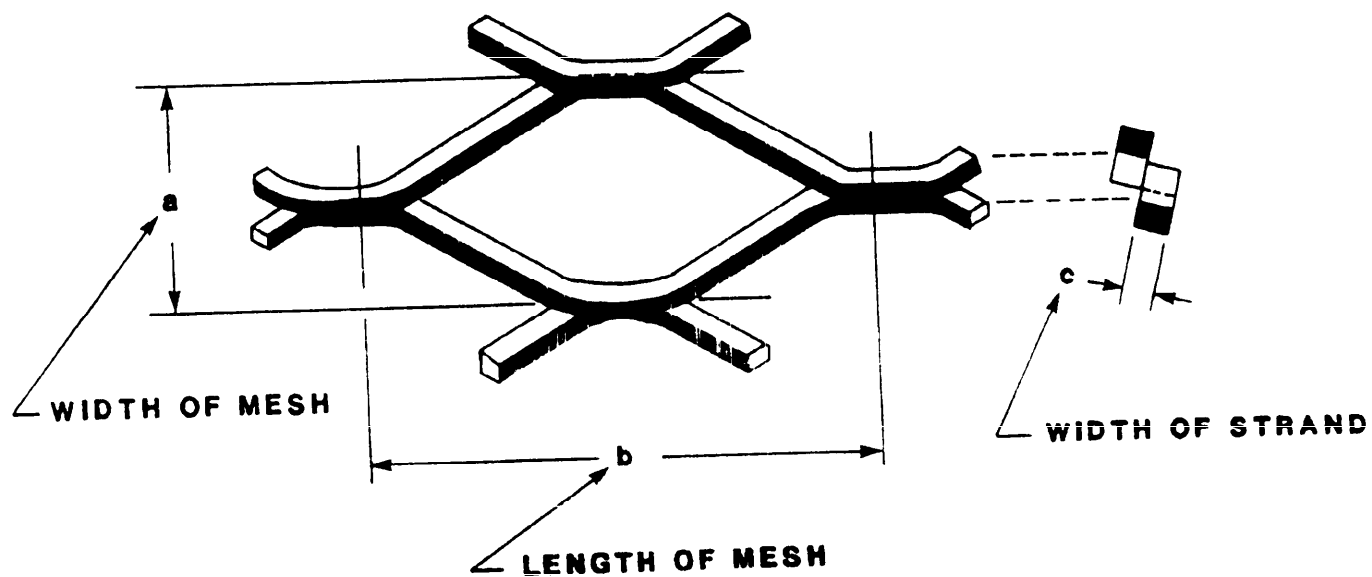
## Review activities:

Army - MI, ER, AR, ME  
Air Force - 84

## User activities:

Navy - OS  
Army - EA

MIL-M-17194D



SH 131860

FIGURE 1. Type I, class 1.

MIL-M-17194D

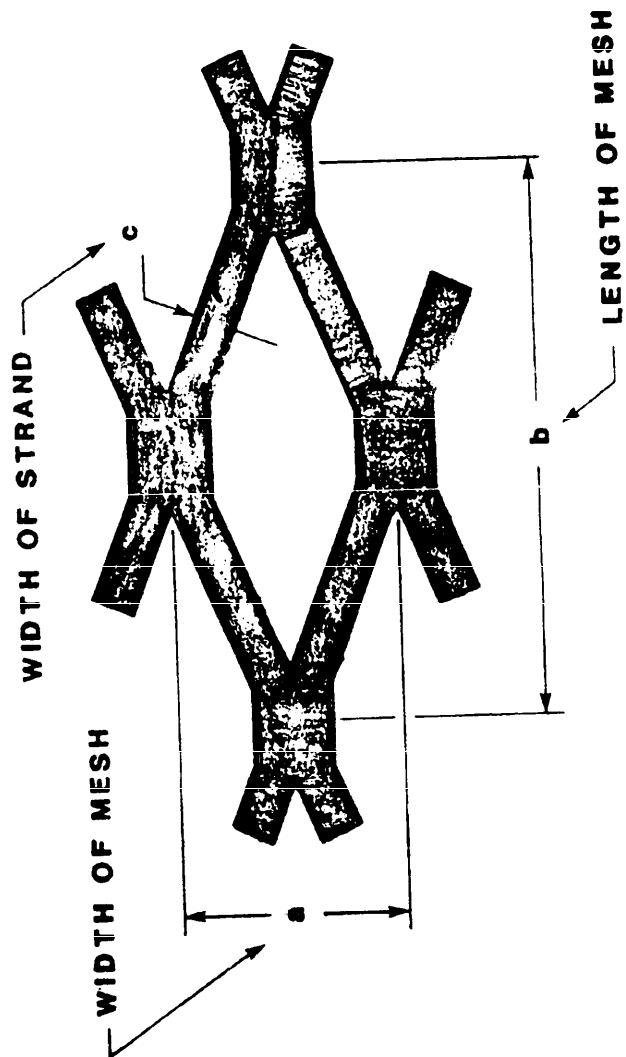


FIGURE 2. Type II, class 1.

SH 131861



**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

**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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## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER MIL-M-17140		2. DOCUMENT TITLE META, EXPANDED, STEEL	
3a. NAME OF SUBMITTING ORGANIZATION		4. TYPE OF ORGANIZATION (Mark one)	
4. ADDRESS (Street, City, State, ZIP Code)		<input type="checkbox"/> VENDOR	
		<input type="checkbox"/> USER	
		<input type="checkbox"/> MANUFACTURER	
		<input type="checkbox"/> OTHER (Specify) _____	
5. PROBLEM AREAS			
a. Paragraph Number and Wording			
b. Recommended Wording			
c. Reason/Rationale for Recommendation:			
6. REMARKS			
7a. NAME OF SUBMITTER (Last, First, MI) - Optional		7b. WORK TELEPHONE NUMBER (Include Area Code) - Optional	
8. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional		8. DATE OF SUBMISSION (YYMMDD)	

(TO DETACH THIS FORM, CUT ALONG THIS LINE.)