

FED. SUPPLY CLASS

5320

1. SCOPE

1.1 Scope. This specification covers the preparation for and installation of self-plugging blind rivets.

2. APPLICABLE DOCUMENTS

2.1 Government documents

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

TT-P-1757 Primer Coating Zinc Chromate, Low-Moisture-Sensitivity

Copies can be obtained from the Department of Defense Single Stock Point (DODSSP). <http://dodssp.daps.dla.mil>

STANDARDS

AEROSPACE INDUSTRIES ASSOCIATION

NASM20600 Rivet, Blind, Structural Pull Stem, Self-Plugging, Protruding Head, Type II

NASM20601 Rivet, Blind, Structural Pull Stem, Self-Plugging, 100° Flush Head, Type II

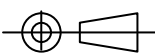
NASM20605 Rivet, Blind Nonstructural, 100° Flush Head

Copies can be obtained from the Aerospace Industries Association, 1000 Wilson Blvd., Suite 1700, Arlington, VA 22209. www.aia-aerospace.org

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

① COMPLETELY REVISED

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MIL-R-47195, REVISION A.

THIRD ANGLE PROJECTION 	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 1
PROCUREMENT SPECIFICATION NONE	TITLE RIVETS, BLIND, SELF-PLUGGING, PREPARATION FOR AND INSTALLATION OF ①	CLASSIFICATION SPECIFICATION NASM47195 SHEET 1 OF 7

3. REQUIREMENTS

3.1 Rivets. The rivet type, size, and material shall be as specified on the engineering drawing, parts list or specification.

3.1.1 Rivet handling. The rivets, as furnished, shall be free from dust, dirt or grease. If the rivets are furnished with a special lubricant coating the coating shall not be removed by solvents or staining. Lubricant removal will result in faulty pull stem operation.

3.2 Equipment. Equipment for installation of self-plugging blind rivets shall be standard header tools as recommended by rivet manufacturer.

3.3 Rivet holes (countersunk rivets)

3.3.1 Drilling. Drilling of rivet holes shall be as follows:

- a. Oversize, oblong, and irregular shaped holes shall be cause for rejection.
- b. All holes shall be drilled normal (at 90°) to the working surface.
- c. Extreme pressure shall not be applied and holes shall not be punched through with the drill.
- d. When drilling through more than one sheet, hold the sheets securely together so there is no misalignment of holes due to shifting or separation of the sheets.
- e. Before parts are riveted together, all chips, burrs, and foreign material shall be removed from mating surfaces. Burrs may be removed from rivet holes by chamfering to a depth not to exceed 10 percent of the stock thickness or .032 inches, whichever is less.

3.3.2 Hole size. Pilot drill parts in accordance with Table I and hold together with skin fasteners in alternate holes. After installation of fasteners, finish drill holes not obstructed by fasteners in accordance with Table I.

TABLE I – RIVET DRILL SIZES

Rivet Diameter (Inches)	Pilot Drill	MS20600, MS20601, MS20605	
		Pre drill	Finish Drill And Tolerance
.094	#49 (.073)	.43 (.098)	#40 (.096) .097 .101
.125	#40 (.098)	#32 (.116)	#30 (.1285) .128 .132
.156	#30 (.1285)	#26 (.147)	#20 (.161) .160 .164
.187	#20 (.161)	#16 (.177)	#10 (.1935) .192 .196
.250	#1 (.073)	#15/64 (.234)	#F (.257) .256 .261

3.3.3 Countersinking. Unless otherwise specified on the engineering drawing or specification countersinking shall be used for all flush type rivets and countersinking size and dimensional limitations shall be in accordance with Figure 1 and Table II. Countersinks shall be produced with a tool that incorporates an automatic stop countersinking feature. The Countersinking tool shall be at 90° to the work surface and held steady throughout the cutting cycle. The holes shall be clean and concentric. Countersinks shall be free of chatter marks and concentric with the rivet holes.

① COMPLETELY REVISED

REVISION
1
NAS 47195
SHEET 2



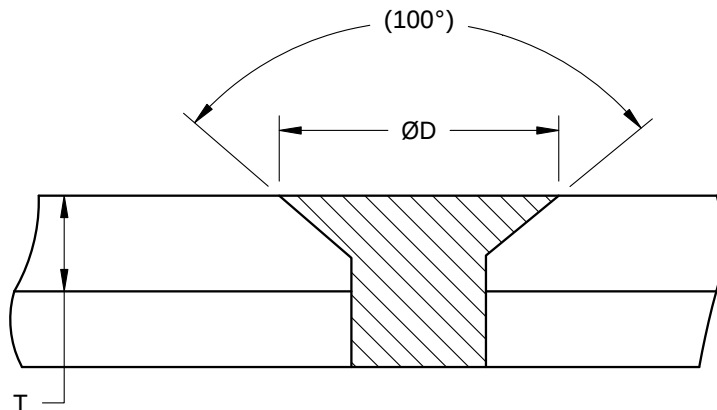


FIGURE 1 – COUNTERSINK HOLES

TABLE II – COUNTERSINK DIAMETERS (See Figure 1)

Rivet Size (Inches)	ØD +.003 -.000 MS20601 MS20605	"T" Minimum MS20601 MS20605
.094	.176	.040
.125	.228	.050
.156	.289	.063
.187	.357	.071
.250	.480	.100

- 3.3.4 **Piercing.** Piercing tools which produce true and clear holes equivalent to acceptable drilled holes may be used with written approval from the procuring activity.
- 3.3.5 **Edge margin.** The rivet edge margin (the distance from the center of the rivet hole to the nearest edge of the part to be riveted) shall be not less than 2 times the diameter of the rivet unless otherwise specified on applicable drawings or specifications.
- 3.4 **Shaving.** All flush head rivets of the self-plugging blind type shall be shaved with a rivet head shaver which will not cause loosening of the stem. All self-plugging blind rivets shall be inspected before and after shaving.
- 3.5 **Riveting**
- 3.5.1 **Installation grip.** Verify grip length specified on drawing before installing rivet since the length is based on nominal material grip. Do not install specified rivet where actual material grip is greater than that shown on the rivet selector gage.