FEDERAL SUPPLY CLASS
5935

RATIONALE

TO INCLUDE FINISHES DT, DY AND DZ (FROM TABLE 2) IN THE QUALIFICATION TEST TABLE (TABLE 3). THESE FINISHES WERE INADVERTENTLY LEFT OUT OF TABLE 3.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS50151.

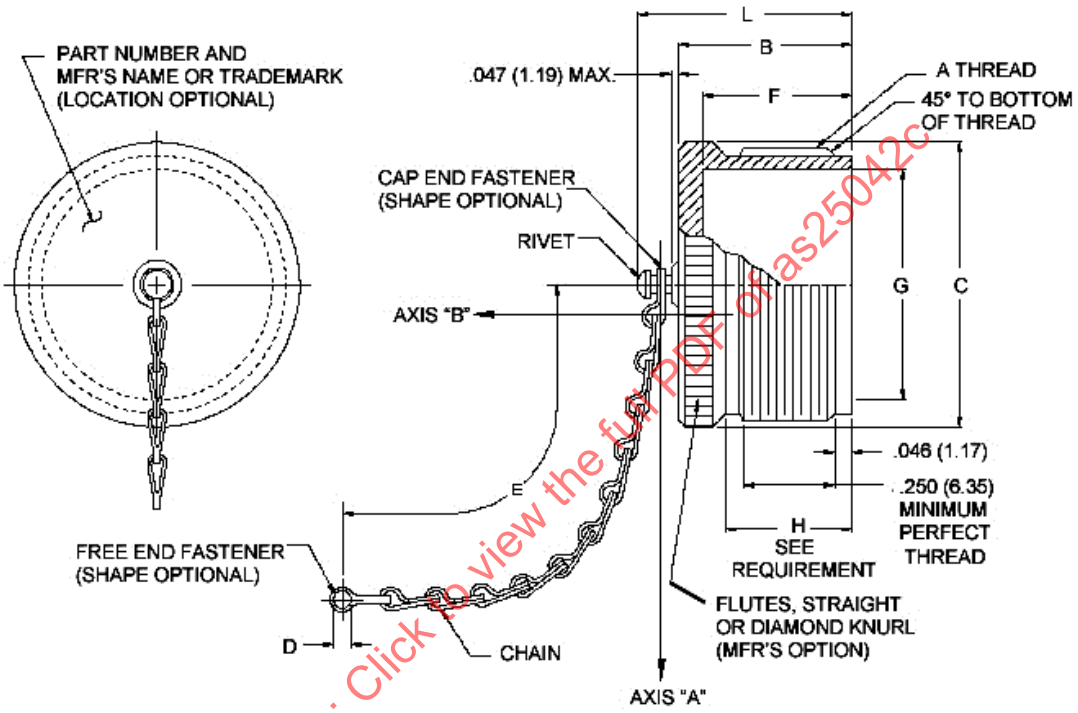
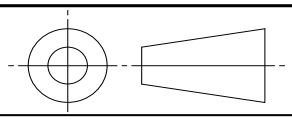


FIGURE 1 - COVER CONFIGURATION

ISSUED 2004-06 REVISED 2014-01

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C1

PROCUREMENT SPECIFICATION: AS50151

SAE INTERNATIONAL

AEROSPACE STANDARD

COVER, ELECTRICAL AS50151 CONNECTOR, PLUG, AN TYPE

AS25042
SHEET 1 OF 5

REV. C

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TABLE 1 - AS25042 DIMENSIONS (SEE FIGURE 1)

DASH NO. (-)	COUPLING SHELL SIZE (REF)	A THREAD (PER AS8879)	B MAX	C MAX DIA	D +.010 (0.27) -.005 (0.12) DIA	E ±1 LINK	F	G DIA	H MIN	L MAX	SHELL SIZE RANGE (REF)
8	8S	.500-28 UNEF-2A	.656 (16.7)	.562 (14.3)	.156 (4.0)	4.000 (101.6)	.562 (14.3)	.375 (9.5)	.380 (9.7)	.969 (24.6)	SMALL
10	10S, 10SL	.625-24 UNEF-2A	.844 (21.4)	.687 (17.4)				.469 (11.9)			
12	12, 12SL	.750-20 UNEF-2A		.812 (20.6)		4.500 (114.3)	.750 (19.1)	.562 (14.3)	.530 (13.5)	1.156 (29.4)	
14	14, 14SL	.875-20 UNEF-2A		.937 (23.8)				.688 (17.5)			
16	16, 16SL	1.000-20 UNEF-2A		1.062 (27.0)				.812 (20.5)			
18	18	1.125-18 UNEF-2A		1.187 (30.1)				.938 (23.8)			MEDIUM
20	20	1.250-18 UNEF-2A		1.312 (33.3)	.187 (4.7)	5.000 (127.0)		1.062 (27.0)			
22	22	1.375-18 UNEF-2A		1.437 (36.5)				1.188 (30.2)			
24	24	1.500-18 UNEF-2A		1.562 (39.7)		5.500 (139.7)		1.312 (33.3)			
28	28	1.750-18 UNS-2A		1.812 (46.0)		7.750 (196.9)		1.531 (38.9)			
32	32	2.000-18 UNS-2A		2.062 (52.4)	.218 (5.5)			1.781 (45.2)			LARGE
36	36	2.250-16 UN-2A		2.312 (58.7)				2.000 (50.8)			
40	40	2.500-16 UN-2A		2.562 (65.1)				2.250 (57.2)			
44	44	2.750-16 UN-2A		2.812 (71.4)				2.500 (63.5)	.590 (15.0)		
48	48	3.000-16 UN-2A		3.062 (77.8)				2.750 (69.9)			

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS50151.

1. DIMENSIONS AND CONFIGURATIONS: SEE FIGURE 1 AND TABLE 1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED AND APPLY AFTER PLATING. TOLERANCES ARE ±.016 (0.41) INCHES. METRIC EQUIVALENTS SHOWN IN PARENTHESES ARE FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1.000 INCH = 25.4 MM.

2. MARKING: MARK COVER IN ACCORDANCE WITH MIL-STD-1285 (SEE FIGURE 1). MANUFACTURER'S SYMBOL SHALL BE IN ACCORDANCE WITH AIR1351.

3. CONSTRUCTION: CAP END FASTENER SHALL ROTATE FREELY AFTER ASSEMBLED TO THE COVER. DIMENSION "H" IS THE MINIMUM ENGAGING DIMENSION.

4. MATERIAL:

   COVER - ALUMINUM ALLOY PER ASTM B211, B221, B26, B26M, B85, OR AMS-QQ-A-225/6, /7 OR /8
   CHAIN - STAINLESS STEEL SASH CHAIN PER RR-C-271, TYPE II, CLASS 3, GRADE B, PASSIVATED
   CHAIN END FASTENERS - COMMERCIAL GRADE OF STAINLESS STEEL, PASSIVATED.

5. FINISH AVAILABILITY (SEE TABLE 2)

TABLE 2 - FINISH

FINISH CODE	FINISH DESCRIPTION
D	CADMIUM OLIVE DRAB OVER SUITABLE UNDERPLATE
DA	BLACK ANODIZE PER AMS-A-8625, TYPE II, CLASS 2
DT	NICKEL FLUOROCARBON POLYMER IN ACCORDANCE WITH AMS2454 OVER A SUITABLE UNDERPLATE.
DY	PURE DENSE ELECTRODEPOSITED ALUMINUM IN ACCORDANCE WITH MIL-DTL-83488, TYPE II. FINAL FINISH SHALL BE NON-REFLECTIVE AND ELECTRICALLY CONDUCTIVE.
DZ	ZINC NICKEL IN ACCORDANCE WITH ASTM B841 OVER SUITABLE UNDERPLATE. FINAL FINISH SHALL BE BLACK AND ELECTRICALLY CONDUCTIVE.

6. CHAIN TENSILE LOAD: THE PROTECTIVE COVER AND CHAIN ASSEMBLY SHALL WITHSTAND A DEAD WEIGHT TENSILE LOAD OF 25 POUNDS APPLIED TO AXIS A AND B FOR A PERIOD OF 5 MINUTES WHEN MOUNTED TO A MODIFIED DUMMY RECEPTACLE. THERE SHALL BE NO SEPARATION OF THE CHAIN ASSEMBLY FROM THE PROTECTIVE COVER OR DAMAGE TO THE CHAIN ASSEMBLY.

7. CORROSION (SALT SPRAY): COVERS SHALL MEET THE REQUIREMENT OF AIR4789.

8. QUALIFICATION: INITIAL QUALIFICATION SHALL BE PERFORMED SEQUENTIALLY IN ACCORDANCE WITH TABLE 3 ON TWO (2) SMALL, MEDIUM, AND LARGE SHELL SIZE SPECIMENS (SEE TABLE 1). TEST SPECIMENS SHALL CONSIST OF EACH FINISH FOR WHICH QUALIFICATION IS DESIRED (SEE TABLE 2).

   a. QUALIFIED BY SIMILARITY WITHOUT TESTING SHALL BE COMPARED TO THE SPECIFICATION DIMENSIONS (CERTIFICATION OF COMPLIANT IS REQUIRED).

   b. PERIODIC QUALIFICATION SHALL BE PERFORMED EVERY 36 MONTHS AFTER INITIAL QUALIFICATION UNLESS SUBMITTAL DATE IS ADJUSTED BY THE QUALIFYING ACTIVITY (SEE APPLICATION NOTE). CORROSION TEST REQUIRED FOR INITIAL QUALIFICATION AND EVERY OTHER RETENTION CYCLE THEREAFTER.

TABLE 3 - QUALIFICATION AND QUALITY ASSURANCE (QA) TESTS

QUALIFICATION TESTS	REQUIREMENT	TEST METHOD	QC TESTS
CONSTRUCTION	2, 3	VISUAL EXAMINATION	REQUIRED
DIMENSIONS	FIGURE 1 & TABLE 1	MEASURE & RECORD	REQUIRED
MATERIALS	4	CERTIFICATION	
FINISH	5 & TABLE 2	CERTIFICATION	
CHAIN TENSILE STRENGTH	6	SEE REQUIREMENT	
CORROSION (FINISH CODE D, DT, AND DZ)	7	EIA 364-26 TEST CONDITION D	
CORROSION (FINISH CODE DA)	7	EIA 364-26 TEST CONDITION B	
CORROSION (FINISH CODE DY)	7	EIA 364-26 TEST CONDITION C	

9. QUALITY CONFORMANCE (QC) TESTS: SAMPLING SHALL BE 100%.

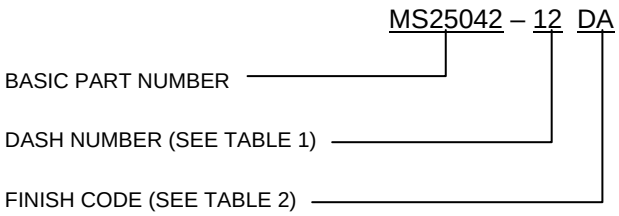
   a. INSPECTION LOT: AN INSPECTION LOT SHALL CONSIST OF ALL COVERS OF THE SAME TYPE PRODUCED UNDER ESSENTIALLY THE SAME CONDITIONS, AND OFFERED FOR INSPECTION AT ONE TIME.

   b. SAMPLING PLAN: STATISTICAL SAMPLING AND INSPECTION SHALL BE IN ACCORDANCE WITH ANSI/ASQ Z1.4 FOR GENERAL INSPECTION LEVEL II. THE ACCEPTABLE QUALITY LEVEL (AQL) SHALL BE 1.0 FOR MAJOR DEFECTS AND 4.0 FOR MINOR DEFECTS. MAJOR AND MINOR DEFECTS SHALL BE AS DEFINED IN MIL-STD-105/ANSI/ASQC 71.4.

   c. REJECTED LOTS: IF AN INSPECTION LOT IS REJECTED, THE CONTRACTOR MAY REWORK IT TO CORRECT THE DEFECTS, OR SCREEN OUT THE DEFECTIVE UNITS AND RESUBMIT FOR INSPECTION. RESUBMITTED LOTS SHALL BE INSPECTED IN ACCORDANCE WITH ANSI/ASQ Z1.4, TIGHTENED INSPECTION. SUCH LOTS SHALL BE SEPARATE FROM NEW LOTS AND SHALL BE CLEARLY IDENTIFIED AS INSPECTED LOTS. THE CONTRACTOR SHALL NOTIFY THE QUALIFYING ACTIVITY (SEE APPLICATION NOTE 3) IMMEDIATELY OF ANY QUALITY CONFORMANCE INSPECTION FAILURES WHICH RESULT IN A CHANGE IN CONTROL DRAWINGS OR PROCESS CONTROL INSPECTION POINTS. FAILURE TO NOTIFY THE QUALIFYING ACTIVITY MAY RESULT IN LOSS OF QUALIFICATION OF THAT PRODUCT.

   d. DISPOSITION OF SAMPLE UNITS: SAMPLE UNITS WHICH HAVE PASSED QUALITY CONFORMANCE INSPECTION MAY BE DELIVERED ON THE CONTRACT IF THE LOT IS ACCEPTED AND THE SAMPLE UNITS ARE STILL WITHIN SPECIFIED TOLERANCES.

10. PART NUMBER EXAMPLE (MS25042-12DA):



THE EQUIVALENT PROTECTIVE COVER SAE SPECIFICATION WHICH HAS SUPERSEDED THE MS25042 PART SPECIFICATION SHALL HAVE THE CORRESPONDING MS25042 PART NUMBER MARKED ON THE PART.

11. SUPERSESSION PART NUMBERS: PART NUMBER SUPERSESSION FOR MILITARY APPLICATIONS (SEE TABLE 4).

TABLE 4 - PART NUMBER SUPERSESSION

MS25042 DASH NO. (-)	MS25042 SUPERSEDED DASH NO. (-)	
8DA	8C	8D
10DA	10C	10D
12DA	12C	12D
14DA	14C	14D
16DA	16C	16D
18DA	18C	18D
20DA	20C	20D
22DA	22C	22D
24DA	24C	24D
28DA	28C	28D
32DA	32C	32D
36DA	36C	36D
40DA	40C	40D
44DA	44C	44D
48DA	48C	48D