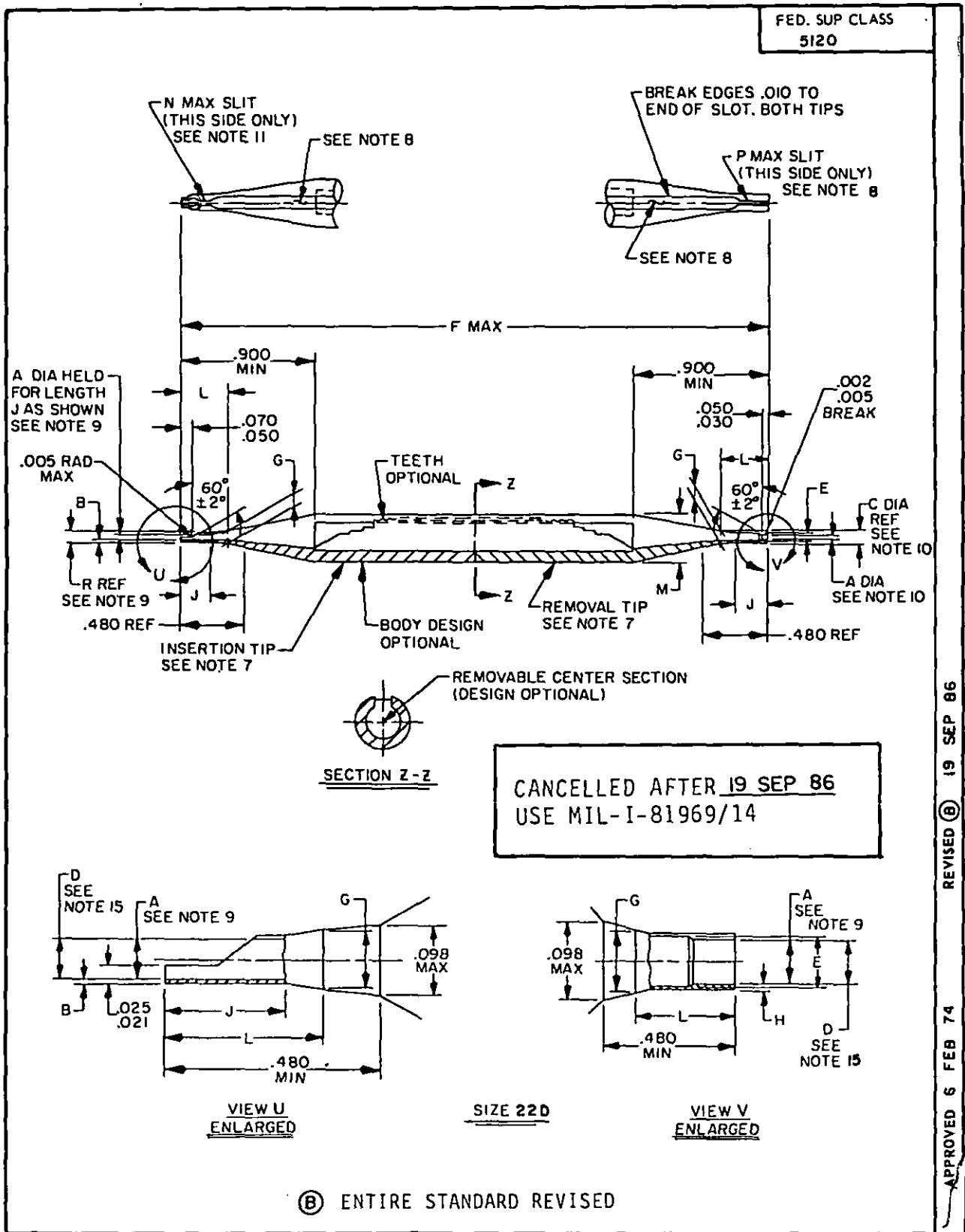


FED. SUP CLASS  
5120

User activities: Army -  
Navy -  
Air Force -

Review activities: Army - CR  
Navy - EC  
Air Force - 85

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P.A. AF-85	International Interest	TITLE TOOL, CONTACT INSERTION-EXTRACTION, ELECTRICAL CONNECTOR	MILITARY STANDARD
Other Cust Army - CR Navy - AS			<b>MS27534</b>
Procurement Specification	SUPERSEDES:		PAGE 1 OF 4

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5120-B090

AMSC N/A

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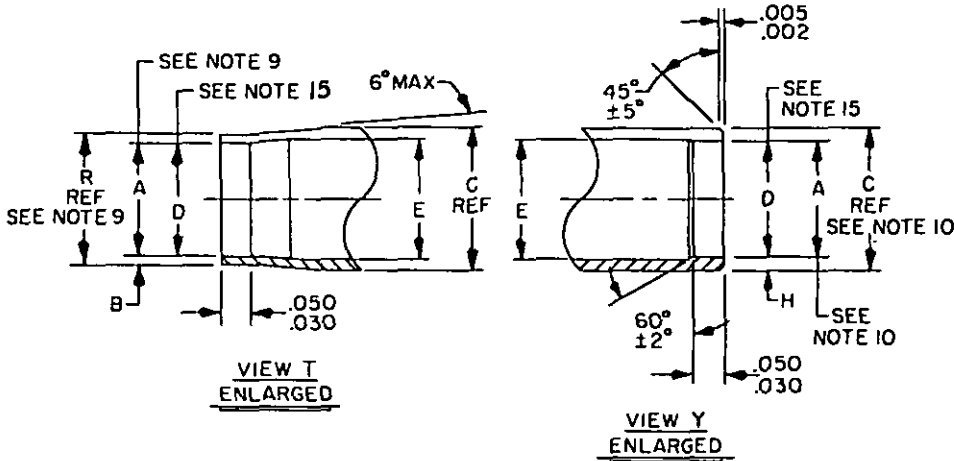
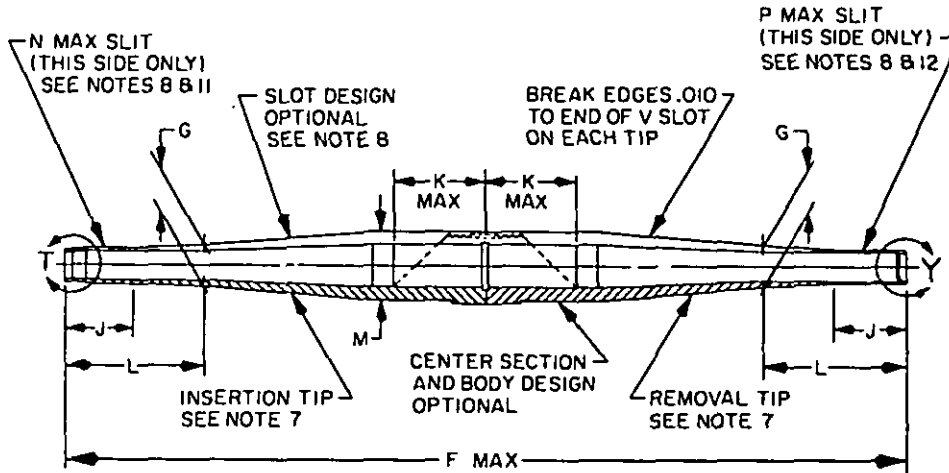
REVISED (B) 19 SEP 86  
APPROVED 6 FEB 74

FED. SUP CLASS  
5120

User activities: Army -  
Navy -  
Air Force -

Review activities: Army - AR  
Navy - EC  
Air Force - 85

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SIZES 20, 16 & 12

APPROVED 6 FEB 74 REVISED (B) ENTIRE STANDARD REVISED.

P.A. AF-85  Other Cust Army - ER Navy - AS	International Informa:	TITLE TOOL, CONTACT INSERTION-EXTRACTION, ELECTRICAL CONNECTOR	MILITARY STANDARD <b>MS27534</b>
Procurement Specification		SUPERSEDES:	PAGE 2 OF 4

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5120

User activities: Army -  
Navy -  
Air Force -

Review activities: Army - AR  
Navy - EC  
Air Force - 85

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Part number	Contact size	A dia max	B dia max	C dia max	D		E min	F max	G max dia	H	J min	K	L min	M dfa max	N max see note 11	P max see note 12	R dfa max ±.0005
					Insert tip max	Remo tip min											
MS27534-22D	22D	.048	.0085 .0075	.0650	.048	.054	.053	4.500	.077	.0085 .0075	.202	--	.31	.290	.009	.009	.0650
MS27534-20	20	.067	.009 .008	.0960	.070	.078	.079	"	.150	.0145 .0135	.310	.505	.760	.290	.009	.009	.0870
MS27534-16	16	.103	.010 .009	.1350	.103	.103	.112	"	.180	.016 .015	.370	.580	.760	.440	.009	.009	.1220
MS27534-12	12	.153	.012 .010	.1890	.151	.151	.160	"	.240	.018 .016	.370	.700	.760	.440	.009	.009	.1770

Color chart (see note 7)	
22D	Green
20	Red
16	Blue
12	Yellow

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.0005	0.01	.018	0.46	.067	1.70	.103	2.62	.1890	4.80	.202	5.13	.240	6.10
.002	0.05	.021	0.53	.070	1.78	.105	2.67	.202	5.13	.109	2.77	.240	6.10
.005	0.13	.025	0.64	.077	1.96	.109	2.77	.240	6.10	.112	2.84	.290	7.37
.0075	0.19	.030	0.76	.078	1.98	.112	2.84	.290	7.37	.112	2.84	.290	7.37
.008	0.20	.040	1.02	.079	2.01	.1220	3.10	.310	7.87	.135	3.43	.310	7.87
.0085	0.22	.048	1.22	.081	2.06	.142	3.61	.370	9.40	.142	3.61	.440	11.18
.009	0.23	.050	1.27	.083	2.11	.150	3.81	.440	11.18	.150	3.81	.480	12.19
.010	0.25	.051	1.30	.085	2.16	.151	3.84	.505	12.83	.151	3.84	.505	12.83
.012	0.30	.053	1.35	.0870	2.21	.153	3.89	.580	14.73	.158	4.01	.700	17.78
.0135	0.34	.054	1.37	.0960	2.44	.160	4.06	.700	17.78	.160	4.06	.900	22.86
.0145	0.37	.060	1.52	.097	2.46	.165	4.19	.900	22.86	.1770	4.50	114.30	
.015	0.38	.063	1.60	.098	2.49	.180	4.57	.900	22.86	.180	4.57	114.30	
.016	0.41	.0650	1.65	.099	2.51								

P.A. AF 85

International interest

TITLE

TOOL, CONTACT  
INSERTION-EXTRACTION,  
ELECTRICAL CONNECTOR

MILITARY STANDARD

Other Cust:  
Army-ER  
Navy-AS

**MS27534**

Procurement Specification

SUPERSEDES:

PAGE 3 OF 4

APPROVED

REVISED (B) ENTIRE STANDARD REVISED.

FED. SUP CLASS  
5120

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Material: Acetal Co-polymer.
4. For design feature purposes, this standard takes precedence over acquisition documents referenced herein.
5. Referenced Government documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.
6. Tips must be capable of being separated from center section.
7. Each tool shall be permanently marked with the assembly part number. Vendor markings are permissible. Insertion tip to be color indicated in the color chart; removal tip to be white.
8. Design for slot optional. Slot design must allow easy entry of all applicable wire sizes.
9. Circumferential dimension. Part requirement: tip of tool must be capable of accepting a pin of "A" max diameter after being inserted into a "R" diameter hole.
10. Circumferential dimension. Part requirement: tip of tool must be capable of accepting a pin of "A" max diameter after being inserted in to a "C" diameter hole
11. "N" max slit is measured with tip of tool in "R" diameter hole.
12. "P" max slit is measured with tip of tool in "C" diameter hole.
13. Tips must be smooth and free from burns and sharp edges.
14. Tools are used to insert and remove contacts from connectors conforming to the following. Wire acceptance ranges are given for information only.

Applicable Military Specification	Contact size	Wire size (OD)
MIL-C-005015 (NAVY)	16	.053 - .103
MS-3450's	12	.085 - .158
MIL-C-24308	22D	.054 max
MIL-C-0026482 (NAVY)	20	.040 - .083
Series 2	16	.053 - .103
	12	.099 - .158
MIL-C-38999	22D	.030 - .060
	20	.040 - .083
	16	.065 - .109
	12	.097 - .142
MIL-STD-1549 Components using MIL-C-39029/22 contacts	22	.030 - .060
	20	.040 - .083
	16	.065 - .109
	12	.097 - .142
MIL-C-0081511 (NAVY)	22	.030 - .054
MIL-C-81703 (NAVY)	20	.040 - .083
Series 2	16	.053 - .103
	12	.099 - .158
MIL-C-83723	20	.040 - .083
	16	.053 - .103
	12	.097 - .158
MIL-C-83733 (USAF)	22D	.030 - .060
	20	.040 - .083
	16	.063 - .103
	12	.081 - .158

15. D diameter represents tool tip I.D. in free state.

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Procurement Specification		SUPERSEDES:	PAGE 4 OF 4

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1 MAY 73User activities: Army -  
Navy -  
Air Force -Review activities: Army - AR  
Navy - EC  
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APPROVED 6 FEB 74  
REVISED 6 ENTIRE STANDARD REVISED.