INCH-POUND

MIL-DTL-24044/1C
15 September 2011
SUPERSEDING
MIL-DTL-24044/1B
10 January 2000

DETAIL SPECIFICATION SHEET

FLANGES, FIXED, COAXIAL LINE, RIGID

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

The requirements for acquiring the product listed herein shall consist of this specification sheet and MIL-DTL-24044.

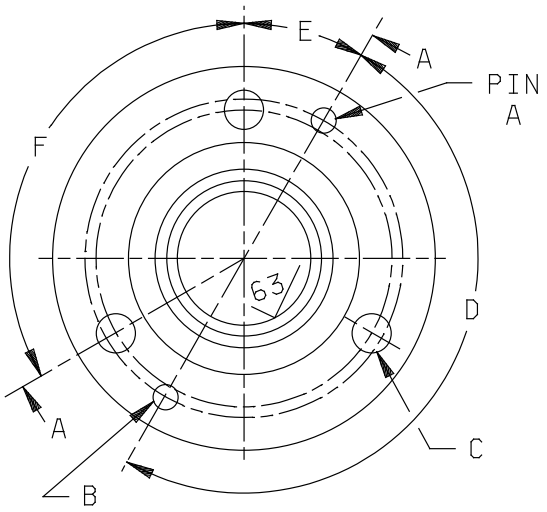


FIGURE 1. 7/8 flange.

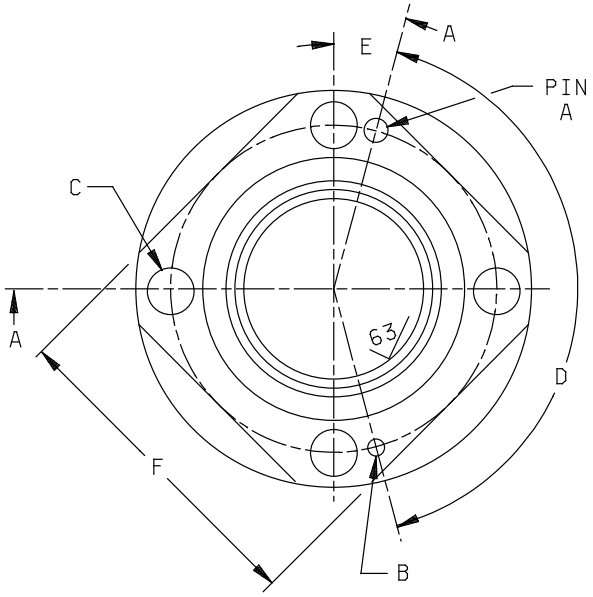


FIGURE 2. 1-5/8 flange.

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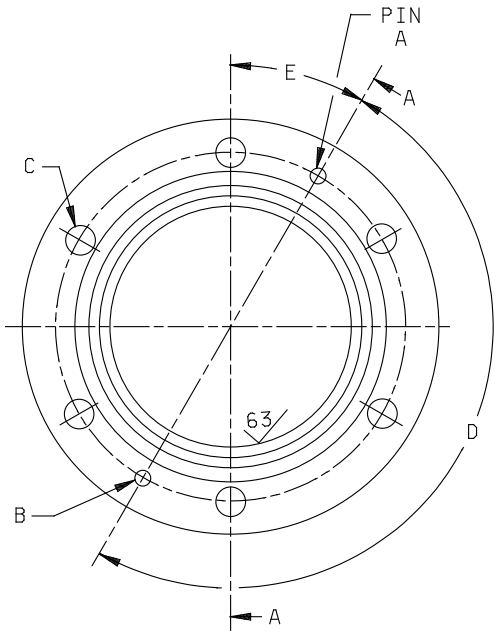


FIGURE 3. 3-1/8 flange.

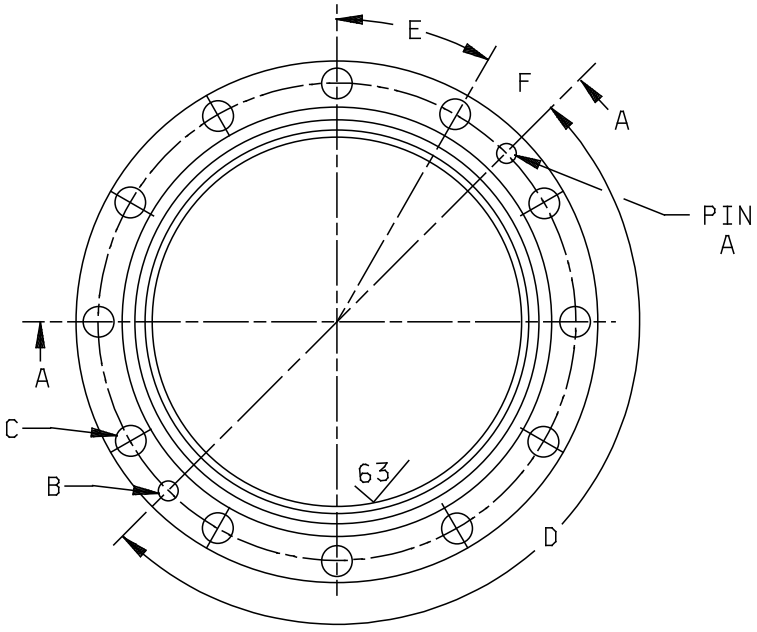


FIGURE 4. 6-1/8 flange.

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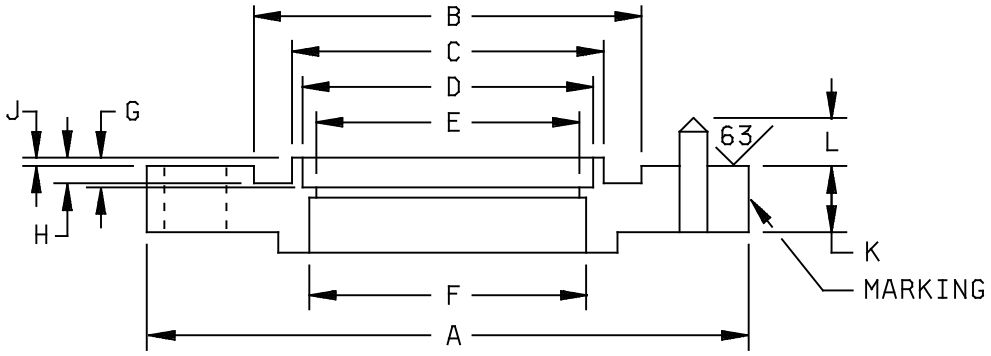


FIGURE 5. Section A-A.

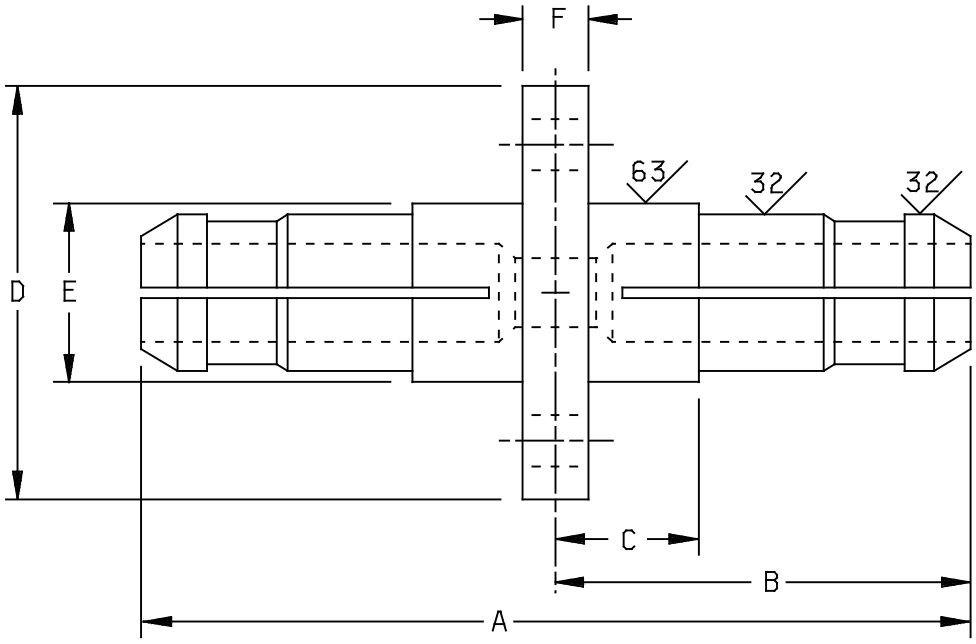


FIGURE 6. Inner connector.

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REQUIREMENTS:

Dimensions and configuration:

See figures 1 through 6 and table IA, IB, and IC.

Materials and reference data: See table II.

TABLE IA. Dimensions for figures 1 through 4.

		Figure 1			Figure 2			Figure 3			Figure 4		
Dim		Inches	mm	Degrees and minutes	Inches	mm	Degrees and minutes	Inches	mm	Degrees and minutes	Inches	mm	Degrees and minutes
A	Min	.1218	3.09		.1218	3.09		.2465	6.26		.2465	6.26	
	Nom	.1218			.1218			.2470			.2470		
	Max	.1223	3.11		.1223	3.11		.2470	6.27		.2470	6.27	
B	Min	.129	3.28		.129	3.28		.253	6.43		.253	6.43	
	Nom	.129 1/			.129 3/			.253 6/			.253 8/		
	Max	.133	3.38		.133	3.38		.257	6.53		.257	6.53	
C	Min												
	Nom	.281 2/	7.14		.343 4/	8.71		.406 7/	10.31		.406 9/	10.31	
	Max												
D	Min			179°53’			149°55’			179°57’			179°58’
	Nom			180°			150°			180°			180°
	Max			180°7’			150°5’			180°3’			180°2’
E	Min			29°40’			14°48’			29°52’			29°55’
	Nom			30°			15°			30°			30°
	Max			30°20’			15°12’			30°8’			30°5’
F	Min				2.734	69.44							14°55’
	Nom			120°	2.750 5/								15°
	Max				2.766	70.26							15°5’

1/ B diameter drill on 1.809 to 1.815 inches (45.95 to 46.10 mm) circle.

2/ C diameter drill: 3 holes equally spaced (120° apart ±15’, not cumulative) on 1.747 to 1.753 inches (44.37 to 44.53 mm) circle.

3/ B diameter drill on 2.809 to 2.815 inches (71.35 to 71.50 mm) circle.

4/ C diameter drill: 4 holes equally spaced (90° apart ±15’, not cumulative) on 2.809 to 2.815 inches (71.35 to 71.50 mm) circle.

5/ Square flange optional.

6/ B diameter drill on 4.372 to 4.378 inches (111.05 to 111.20 mm) circle.

7/ C diameter drill: 6 holes equally spaced (60° apart ±15’, not cumulative) on 4.370 to 4.380 inches (111.00 to 111.25 mm) circle.

8/ B diameter drill on 7.372 to 7.378 inches (187.25 to 187.40 mm) circle.

9/ C diameter drill: 12 holes equally spaced (30° apart ±5’, not cumulative) on 7.370 to 7.380 inches (187.20 to 187.45 mm) circle.

10/ Metric equivalents tabulated and in parentheses are for general information only.

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TABLE IB. Dimensions for figure 5.

		M-24044/1-1 and 2 7/8 50 ohm		M-24044/1-3 and 4 7/8 75 ohm		M-24044/1-5 and 6 1-5/8 50 ohm		M-24044/1-7 and 8 1-5/8 75 ohm		M-24044/1-9 and 10 3-1/8 50 ohm		M-24044/1-11 and 12 3-1/8 75 ohm		M-24044/1-13 and 14 6-1/8 50 ohm	
Dim		Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
A	Min	2.235	56.77	2.235	56.77	3.484	88.50	3.484	88.50	5.1719	131.36	5.1719	131.36	8.109	205.97
	Nom	2.250	57.15	2.250	57.15	3.5	88.90	3.5	88.90	5.1875	131.76	5.1875	131.76	8.125	206.38
	Max	2.265	57.53	2.265	57.53	3.516	89.30	3.516	89.30	5.2031	132.16	5.2031	132.16	8.141	206.78
B	Min	1.350	34.29	1.350	34.29	2.305	58.55	2.305	58.55	3.805	96.65	3.805	96.65	6.795	172.59
	Nom	1.350	34.29	1.350	34.29	2.310	58.67	2.310	58.67	3.810	96.77	3.810	96.77	6.800	172.72
	Max	1.355	34.42	1.355	34.42	2.315	58.80	2.315	58.80	3.815	96.90	3.815	96.90	6.805	172.85
C	Min	1.025	26.04	1.025	26.04	1.815	46.10	1.815	46.10	3.320	84.33	3.320	84.33	6.215	157.86
	Nom	1.030	26.16	1.030	26.16	1.820	46.23	1.820	46.23	3.325	84.46	3.325	84.46	6.220	157.99
	Max	1.030	26.16	1.030	26.16	1.825	46.36	1.825	46.36	3.330	84.58	3.330	84.58	6.225	158.12
D	Min	.815	20.70	.815	20.70	1.647	41.83	1.647	41.83	3.203	81.36	3.203	81.36	6.075	154.31
	Nom	.815	20.70	.815	20.70	1.647	41.83	1.647	41.83	3.203	81.36	3.203	81.36	6.075	154.31
	Max	.820	20.83	.820	20.83	1.652	41.96	1.652	41.96	3.208	81.48	3.208	81.48	6.080	154.43
E	Min	.782	19.86	.782	19.86	1.524	38.71	1.524	38.71	3.022	76.76	3.022	76.76	5.973	151.71
	Nom	.785	19.94	.785	19.94	1.527	38.79	1.527	38.79	3.027	76.89	3.027	76.89	5.981	151.92
	Max	.788	20.02	.788	20.02	1.530	38.86	1.530	38.86	3.032	77.01	3.032	77.01	5.989	152.12
F	Min	.878	22.30	.878	22.30	1.628	41.35	1.628	41.35	3.130	79.50	3.130	79.50	6.130	155.70
	Nom	.878	22.30	.878	22.30	1.628	41.35	1.628	41.35	3.130	79.50	3.130	79.50	6.133	155.78
	Max	.881	22.36	.881	22.36	1.631	41.43	1.631	41.43	3.133	79.58	3.133	79.58	6.138	155.91
G	Min	.093	2.36	.093	2.36	.125	3.18	.125	3.18	.187	4.75	.187	4.75	.218	5.54
	Nom	.093	2.36	.093	2.36	.125	3.18	.125	3.18	.187	4.75	1.87	4.75	.218	5.54
	Max	.098	2.49	.098	2.49	.130	3.30	.130	3.30	.192	4.88	.192	4.88	.223	5.66
H	Min	.048	1.22	.048	1.22	.077	1.96	.077	1.96	.077	1.96	.077	1.96	.110	2.79
	Nom	.053	1.35	.053	1.35	.080	2.03	.080	2.03	.080	2.03	.080	2.03	.115	2.92
	Max	.053	1.35	.053	1.35	.080	2.03	.080	2.03	.080	2.03	.080	2.03	.120	3.05
J	Min	.005	0.13	.005	0.13	.005	0.13	.005	0.13	.004	0.10	.004	0.10	.008	0.20
	Nom	.005	0.13	.005	0.13	.010	0.25	.010	0.25	.010	0.25	.010	0.25	.014	0.35
	Max	.015	0.38	.015	0.38	.015	0.38	.015	0.38	.016	0.41	.016	0.41	.020	0.51
K	Min	.3125	7.94	.3125	7.94	.375	9.53	.375	9.53	.4375	11.11	.4375	11.11	.531	13.49
	Nom	.3125	7.94	.3125	7.94	.375	9.53	.375	9.53	.4375	11.11	.4375	11.11	.531	13.49
	Max	---	---	---	---	---	---	---	---	---	---	---	---	---	---
L	Min	.140	3.56	.140	3.56	.234	5.94	.234	5.94	.359	9.12	.359	9.12	.359	9.12
	Nom	.156	3.96	.156	3.96	.250	6.35	.250	6.35	.375	9.53	.375	9.53	.375	9.53
	Max	.172	4.37	.172	4.37	.266	6.76	.266	6.76	.391	9.93	.391	9.93	.391	9.93

1/ Metric equivalents tabulated for general information only.

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TABLE IC. Dimensions for figure 6.

		M-24044/1-1 and 2 7/8 50 ohm		M-24044/1-3 and 4 7/8 75 ohm		M-24044/1-5 and 6 1-5/8 50 ohm		M-24044/1-7 and 8 1-5/8 75 ohm		M-24044/1-9 and 10 3-1/8 50 ohm		M-24044/1-11 and 12 3-1/8 75 ohm		M-24044/1-13 and 14 6-1/8 50 ohm	
Dim		Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
A	Min	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Nom	2.688	68.28	2.688	68.28	3.250	82.55	3.250	82.55	4.250	107.95	4.250	107.95	5.50	139.70
	Max	2.688	68.28	2.688	68.28	3.250	82.55	3.250	82.55	4.250	107.95	4.250	107.95	5.50	139.70
B	Min	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Nom	1.344	34.14	1.344	34.14	1.625	41.28	1.625	41.28	2.125	53.98	2.125	53.98	2.750	69.85
	Max	1.344	34.14	1.344	34.14	1.625	41.28	1.625	41.28	2.125	53.98	2.125	53.98	2.750	69.85
C	Min	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Nom	.433	11.00	.433	11.00	.573	14.55	.573	14.55	.893	22.68	.893	22.68	1.221	31.01
	Max	.433	11.00	.433	11.00	.573	14.55	.573	14.55	.893	22.68	.893	22.68	1.221	31.01
D	Min	.810	20.57	.810	20.57	1.640	41.66	1.640	41.66	3.195	81.15	3.195	81.15	6.067	154.10
	Nom	.812	20.63	.812	20.63	1.645	41.78	1.645	41.78	3.198	81.23	3.198	81.23	6.072	154.23
	Max	.812	20.63	.812	20.63	1.645	41.78	1.645	41.78	3.198	81.23	3.198	81.23	6.072	154.23
E	Min	.339	8.61	.224	5.69	.6615	16.80	.436	11.07	1.312	33.33	.8665	22.01	2.596	65.94
	Nom	.341	8.66	.226	5.74	.6640	16.86	.438	11.13	1.315	33.40	.8690	22.07	2.600	66.04
	Max	.343	8.71	.228	5.79	.6665	16.93	.440	11.18	1.318	33.48	.8715	22.14	2.604	66.14
F	Min	.183	4.65	.183	4.65	.244	6.20	.244	6.20	.367	9.32	.367	9.32	.429	10.90
	Nom	.185	4.70	.185	4.70	.249	6.32	.249	6.33	.372	9.45	.372	9.45	.434	11.02
	Max	.185	4.70	.185	4.70	.249	6.32	.249	6.33	.372	9.45	.372	9.45	.434	11.02

1/ Figure 6 for assurance of interchangeability only of inner connector.

2/ All diameters to be concentric within .005 inch (0.13 mm) except stock size (O.D.).

3/ Metric equivalents tabulated for general information only.

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TABLE II. Requirements.

PIN	Type	Size (inches)	Nominal impedance (ohms)	Material	Figure no.	Mates with self and	Hi. pot. test (kv)	"O" ring data	Bolt data	Inner connector PIN	Type	Figure
M-24044/1-01	CG-3030/U	7/8	50	Copper-base alloy	1 and 5	M-24044/2-01	5	O.D. 1.324 inch	3 each	M-24044/1-01C	UG-1164/U	6
M-24044/1-02	CG-3006/U	7/8	50	Aluminum-base alloy	1 and 5	M-24044/2-02	5	(33.63 mm)	1/2-20 x 1	M-24044/1-01C	UG-1164/U	6
M-24044/1-03	CG-3007/U	7/8	75	Copper-base alloy	1 and 5	M-24044/2-03	5	I.D.1.046 inch	long	M-24044/1-03C	CG-3036/U	6
M-24044/1-04	CG-3008/U	7/8	75	Aluminum-base alloy	1 and 5	M-24044/2-04	5	(26.57 mm)	Inch (min)	M-24044/1-03C	CG-3036/U	6
M-24044/1-05	CG-3032/U	1-5/8	50	Copper-base alloy	2 and 5	M-24044/2-05	10	O.D. 2.270 inch	4 each	M-24044/1-05C	UG-1161/U	6
M-24044/1-06	CG-3012/U	1-5/8	50	Aluminum-base alloy	2 and 5	M-24044/2-06	10	(57.66 mm)	5/16-18	M-24044/1/05C	UG-1161/U	6
M-24044/1-07	CG-3013/U	1-5/8	75	Copper-base alloy	2 and 5	M-24044/2-07	10	I.D.1.850 inch	x 1-1/2	M-24044/1-07C	CG-3037/U	6
M-24044/1-08	CG-3014/U	1-5/8	75	Aluminum-base alloy	2 and 5	M-24044/2-08	10	(46.99 mm)	long	M-24044/1-07C	CG-3037/U	6
									Inch (min)			
M-24044/1-09	CG-3018/U	3-1/8	50	Copper-base alloy	3 and 5	M-24044/2-09	20	O.D. 3.770 inch	6 each	M-24044/1-09C	CG-3034/U	6
M-24044/1-10	CG-3020/U	3-1/8	50	Aluminum-base alloy	3 and 5	M-24044/2-10	20	(95.76 mm)	3/8-16	M-24044/1-09C	CG-3034/U	6
M-24044/1-11	CG-3019/U	3-1/8	75	Copper-base alloy	3 and 5	M-24044/2-11	20	I.D.3.350 inch	x 1-1/2	M-24044/1-11C	CG-3038/U	6
M-24044/1-12	CG-3021/U	3-1/8	75	Aluminum-base alloy	3 and 5	M-24044/2-12	20	(85.09 mm)	long	M-24044/1-11C	CG-3038/U	6
									Inch (min)			
M-24044/1-13	CG-3026/U	6-1/8	50	Copper-base alloy	4 and 5	M-24044/2-13	20	O.D. 6.775 inch	12 each	M-24044/1-13C	CG-3035/U	6
M-24044/1-14	CG-3027/U	6-1/8	50	Aluminum-base alloy	4 and 5	M-24044/2-14	20	(172.09 mm)	3/8-16	M-24044/1-13C	CG-3035/U	6
								I.D.6.225 inch	x 1-3/4			
								(158.12 mm)	long			
									Inch (min)			

1/ Flange size is defined by the nominal outside diameter of the line with which it is used.
2/ "C" on PIN denotes inner connector used with flange.
3/ Metric equivalents tabulated in parentheses are for general information only.

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Referenced documents: This document references only the following: MIL-DTL-24044.

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5985-2011-031)

Review activities:
Navy - AS, MC, OS

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.daps.dla.mil.

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