

FIGURE 1. CONDUIT, FLEXIBLE, RADIO FREQUENCY SHIELDING

MS PART NO.	INSIDE DIA (NOMINAL)	A		B		BENDING RADIUS (INSIDE) MAX	WEIGHT MAX LB PER FT
		MAX	MIN	MAX	MIN		
MS25064-3	3/16	.373	.350	.188	.172	1.625	.140
MS25064-4	1/4	.435	.401	.250	.235	2.000	.180
MS25064-5	5/16	.513	.490	.328	.313	2.000	.205
MS25064-8	3/8	.560	.538	.375	.360	2.125	.242
MS25064-10	5/8	.833	.810	.625	.610	2.500	.406
MS25064-12	3/4	.958	.935	.750	.745	3.000	.457
MS25064-16	1	1.256	1.236	1.000	.985	3.875	.710
MS25064-18	1-1/8	1.411	1.387	1.156	1.141	5.125	.820
MS25064-22	1-3/8	1.688	1.658	1.375	1.360	5.625	.950

NOTES:

1. DIMENSIONS IN INCHES.
2. FOR CONDUIT ASSEMBLY SEE DRAWING MS25067.

ⓑ DENOTES CHANGE

PREPARING ACTIVITY: NAVY -AS

CUSTODIANS:

NAVY - AS
USAF - 85
ARMY - ER

PROJECT NUMBER 5975-1131

MILITARY SPECIFICATION SHEET
TITLE:

CONDUIT, FLEXIBLE, RADIO FREQUENCY SHIELDING

SPECIFICATION SHEET NUMBER 10 FEB 95
MS25064 REV BSUPERSEDING
MS25064 A 11 JULY 1980

AMSC- N/A FSC 5975

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DOUBLE AMPLITUDE - INCHES

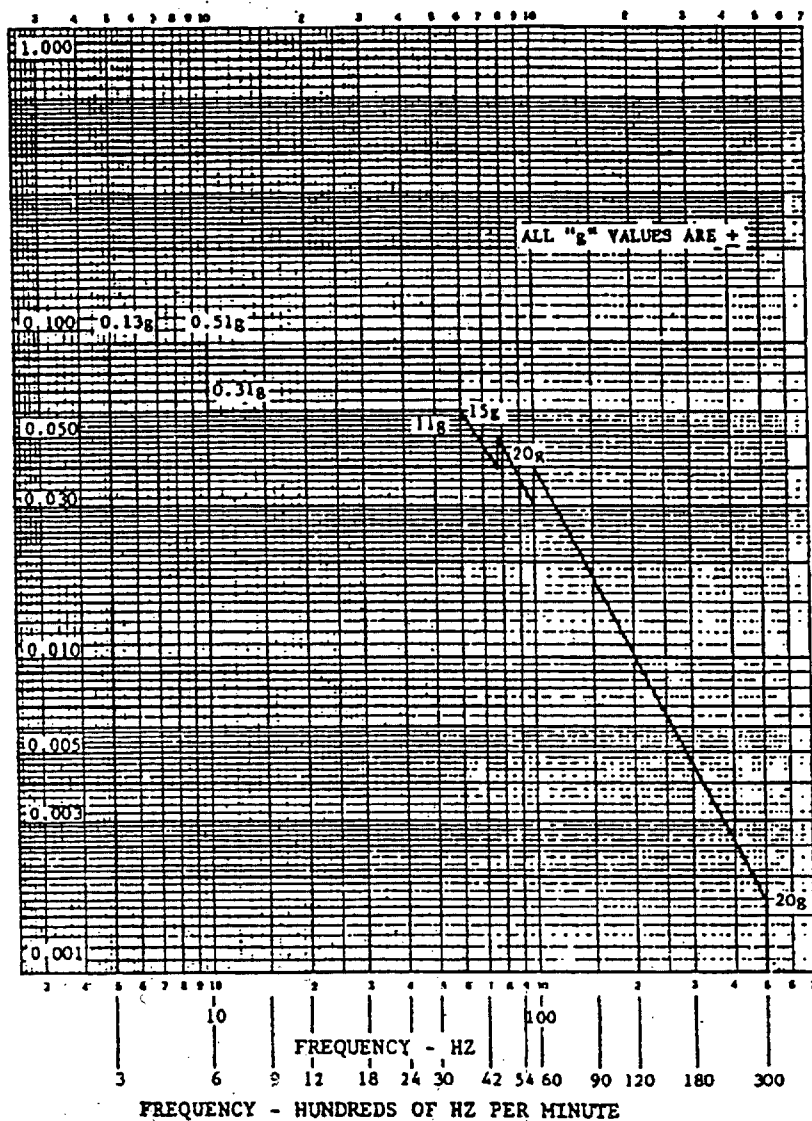


FIGURE 2. RANGE CURVES FOR VIBRATION TESTS

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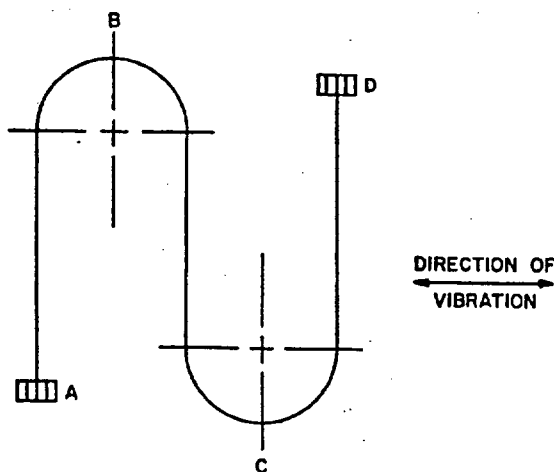
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CONDUIT AND FERRULES CLAMPED TO VIBRATION STAND AT POINTS A, B, C, AND D.

FIGURE 3. VIBRATION ENDURANCE TEST SETUP

APPLICABLE DOCUMENTS:

MIL-I-6051	ELECTROMAGNETIC COMPATIBILITY REQUIREMENTS, SYSTEMS
MS25065	FERRULE, FLEXIBLE CONDUIT, RADIO FREQUENCY SHIELDING
MS25066	NUT, FLEXIBLE CONDUIT, RADIO FREQUENCY SHIELDING
MS25067	CONDUIT ASSEMBLY, FLEXIBLE, RADIO FREQUENCY SHIELDING

REQUIREMENTS:

- (B) 1. IN ADDITION TO THE REQUIREMENTS OF A-A-52440 (*CID=COMMERCIAL ITEM DESCRIPTION), THE FOLLOWING REQUIREMENTS FORM A PART OF THIS MILITARY SPECIFICATION SHEET:

a. **RADIATED INTERFERENCE.** THE SHIELDING PROPERTIES TEST OF THE CONDUIT SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST REQUIREMENTS FOR RADIATED INTERFERENCE LIMITS OUTLINED IN MIL-I-6051. A 10-FOOT LENGTH OF CONDUIT, HAVING A MS25065 FERRULE AND A MS25066 NUT ASSEMBLED ON EACH END, SHALL BE INSERTED IN A SIMULATED ENGINE TEST SETUP. THE TEST SHALL CONSIST OF REPEATEDLY FIRING A SHIELDED SPARK PLUG WITH THE CONDUIT IN THE HIGH-TENSION SIDE OF THE SETUP. THE SPARK PLUG SHALL BE OPERATED IN A PRESSURE BOMB UNDER A SPARK PLUG SETTING AND BOMB PRESSURE APPROXIMATING THAT NORMALLY ENCOUNTERED IN AN ENGINE. THE MAGNETO USED SHALL BE A BENDIX-SCINTILLA MODEL NO. DF18LN, OR EQUAL, AND SHALL BE SUITABLY SHIELDED. THE CONDUIT SHALL BE CAPABLE OF SATISFACTORILY LIMITING ANY RADIATED INTERFERENCE TO WITHIN THE LIMITS SPECIFIED.

b. **VIBRATION ENDURANCE.** THE VIBRATION APPARATUS SHALL CONSIST OF A SUITABLE DEVICE FOR MOUNTING AND VIBRATING THE CONDUIT ASSEMBLY THROUGH THE FOLLOWING RANGES:

- (a) 0.100-INCH DOUBLE AMPLITUDE (TOTAL EXCURSION) FROM 5 TO 10 HZ.
- (b) 0.060-INCH DOUBLE AMPLITUDE FROM 10 TO 60 HZ.
- (c) +11g VIBRATORY ACCELERATION FROM 60 TO 75 HZ.
- (d) +15g VIBRATORY ACCELERATION FROM 75 TO 100 HZ.
- (e) +20g VIBRATORY ACCELERATION FROM 100 TO 500 HZ.

c. THE SAME CONDUIT SAMPLE AS USED IN THE SHIELDING PROPERTIES TEST SHALL BE MOUNTED ON THE VIBRATION STAND AS SHOWN IN FIGURE 3. THE CONDUIT SHALL BE SECURED TO THE STAND AT THE TWO BENDING POINTS AND AT THE FERRULES ON EACH END. THE FREQUENCY OF VIBRATION SHALL BE VARIED SLOWLY FROM 5 TO 500 AND BACK TO 5 HZ WITH THE AMPLITUDES SHOWN IN FIGURE 2. IF RESONANT FREQUENCIES ARE ENCOUNTERED, THE STAND SHALL BE VIBRATED FOR A PERIOD OF 12 HOURS WITH THE APPLIED DOUBLE AMPLITUDE OR VIBRATORY ACCELERATION AS SHOWN ABOVE. WHEN MORE THAN ONE RESONANT FREQUENCY IS ENCOUNTERED, THE TEST MAY BE CARRIED OUT AT THE MOST SEVERE RESONANCE, OR THE PERIODS MAY BE DIVIDED AMONG THE RESONANT FREQUENCIES, WHICHEVER IS CONSIDERED MOST LIKELY TO PRODUCE FAILURE. AT THE END OF THE 12-HOUR PERIOD, THE STAND SHALL BE VIBRATED WITH AN APPLIED DOUBLE AMPLITUDE OF 0.018 INCH AND A FREQUENCY OF 150 HZ FOR AN ADDITIONAL PERIOD OF 138 HOURS. AT THE END OF THIS TEST, THE CONDUIT SHALL BE AGAIN SUBJECTED TO THE SHIELDING PROPERTIES TEST AND SHALL MEET THE REQUIREMENTS SPECIFIED THEREIN.

2. **QUALITY ASSURANCE** - FOR EACH DELIVERY, THE SUPPLIER MUST CERTIFY ALL REQUIREMENTS OF PARAGRAPHS 2.3 TO 2.6.2 OF A-A-52440 AND REQUIREMENTS 1A AND B OF THIS SPECIFICATION SHEET HAVE BEEN VERIFIED BY TEST DATA GENERATED NO LONGER THAN 2 YEARS PRIOR TO PRODUCTION OF THE PART SUPPLIED.

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