

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: Moderco Inc.

Sound Transmission Loss Test
RAL™-TL00-103

ON: Operable 8000 Series Folding Partition

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CONDUCTED: 26 July 2000

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-99 and E413-87, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an operable 8000 Series folding partition. The overall dimensions of the specimen as measured were 4.27 m (168 in.) wide by 2.56 m (100.75 in.) high and 102 mm (4 in.) thick. The specimen was installed by the manufacturer directly into the laboratory's 2.74 m (9 ft) by 4.27 m (14 ft) wood-lined steel frame and was sealed on the periphery (both sides) with a dense mastic.

The manufacturer's description of the specimen was as follows: The test specimen was a top supported, manually operated 8000 series folding partition. The overhead track was covered on both sides by a gypsum board construction bulkhead covered with a dense mastic and was not included in the overall area of the sample. The assembly consisted of a single No. 45 track system with a No. 45 trolley per panel. Each trolley was made of four (4) steel ball bearings with nylon tires. The closure system consisted of a telescopic mechanism made of a "U" shape assembly providing lateral pressure. The specimen wall butted into a two-part wall jamb sealed at the back with caulking. Each panel was constructed of a steel reinforced aluminum full perimeter protective frame that held a layer of 13 mm (.50 in.) thick gypsum board on both sides of a 64 mm (2.5 in.) thick fiberglass acoustical core. Skins of 16 gauge steel were bonded to the inside of the gypsum board faces. The panels were finished with Moderco Class A reinforced vinyl, pressure bonded to the panel faces. The vertical seals were a combination of double tongue and groove systems with voids filled with alignment mouldings and absorbent material. The horizontal top and bottom seals were of the lever operated mechanical type with neoprene gasket. The specimen was opened and closed at least five times, and the test was conducted with no further adjustments.

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NVLAP

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DESCRIPTION OF THE SPECIMEN (Continued)

The specimen consisted of four panels. Three panels measured 1.03 m (40.5 in.) wide by 2.56 m (100.75 in.) high and 102 mm (4 in.) thick. The fourth panel measured 1.03 m (40.5 in.) wide by 2.56 m (100.75 in.) high and had a telescopic end jamb attached. The telescopic end measured 222 mm (8.75 in.) wide by 2.57 m (101 in.) high and 165 mm (6.5 in.) thick.

The weight of the specimen as measured was 626.4 kg (1,381 lbs) an average of 57.4 kg/m² (11.8 lbs/ft²). The transmission area used in the calculations was 10.9 m² (117.5 ft²). The source and receiving room temperatures at the time of the test were 26°C (78±1°F) and 56±3% relative humidity. The source and receive reverberation room volumes were 179m³ (6,298 ft³) and 177 m³ (6,255 ft³), respectively.

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TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-99.

<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	31	0.20	0	800	53	0.30	2
125	34	0.22	3	1000	55	0.28	1
160	39	0.27	1	1250	59	0.23	0
200	39	0.31	4	1600	61	0.18	0
250	44	0.36	2	2000	62	0.19	0
315	45	0.39	4	2500	62	0.14	0
400	47	0.30	5	3150	60	0.13	0
500	49	0.33	4	4000	57	0.13	0
630	51	0.29	3	5000	57	0.12	0

STC = 53

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)
T.L. = TRANSMISSION LOSS, dB
C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
DEF. = DEFICIENCIES, dB<STC CONTOUR
STC = SOUND TRANSMISSION CLASS

Tested by



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Written by



Kimberly Scarano
Secretary

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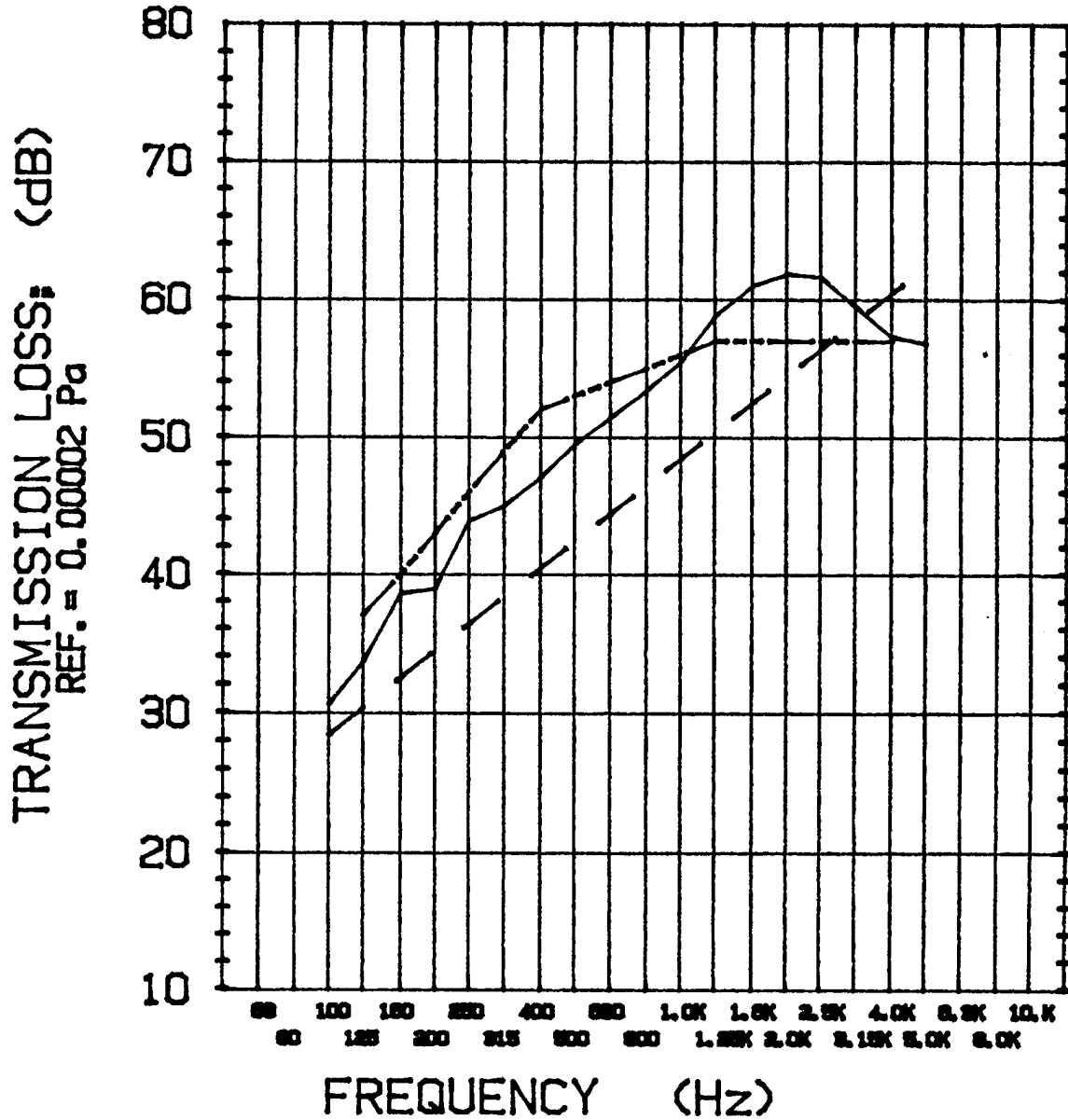
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- . - . MASS LAW CONTOUR

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