

TEST CERTIFICATE

PSI
Corporati

This Certificate is issued to

Saffire Acoustic Engineering Ltd
6th Floor China Southsea Bank Building
22 - 26 Bonham Strand
Sheng Wah
Hong Kong

FOR

Product: Operable Partition Panel

Brand: "Flexifold" Type B - Tank

Model: -

Standard(s)

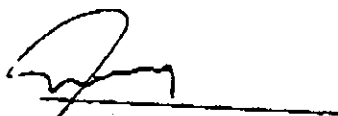
ISO 140 - 3 : 1995

Test Report(s)

54503810/EMK

Summary of Results

"Flexifold" Type B - track operable partition panel has weighted sound reduction index. $R_w(C_1, C_2) = 63 (-1, -6)$.



Vice-President
Certification & Inspection

Certificate No:

00510

Date of Original Issue:

04/10/2001

Date of Last Revision:

-

Date of Expiry:

31/10/2002

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TEST REPORT



Your Ref: HKPO-01/09

Date: 26 Sept 2001

Our Ref: 54S03810/EMK

Page: 1/14

DID: 7747943

Fax: 7793903

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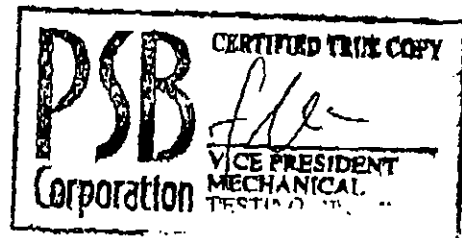
SUBJECT:

Laboratory measurement of weighted sound reduction index, R_w of "Flexifold" Type B-track Operable Partition Panel sample, submitted by Saffire Acoustic Engineering Ltd.

TESTED FOR:

Saffire Acoustic Engineering Ltd
6th Floor, China Southsea Bank Building
22-26 Bonham Strand,
Sheung Wan
Hong Kong

Attn: Mr Brian Gannon



DATE OF TEST:

21st Sept 2001

The test was witnessed by the following persons.

Name of Witness	Company
Mr Bird Andrew Allen	Saffire Acoustic Engineering Ltd
Mr Leslie Lau	Campbell Shillinglaw Lau Ltd
Mr Yan Naing Soc	Dragager Singapore Pte Ltd



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DESCRIPTION OF SAMPLES:

The "Flexifold" Type B-track Operable Partition panel test sample for HKU-Medical Complex consists of 4 pieces of normal panels and 2 pieces of telescopic panels.

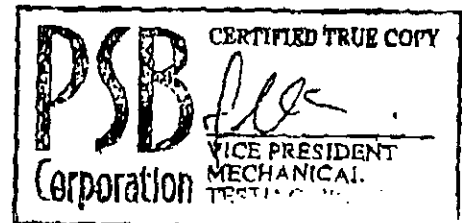
The detailed drawings and general specifications of the test specimen submitted by Saffire Acoustic Engineering Ltd are shown in Appendix.

METHOD OF TEST:

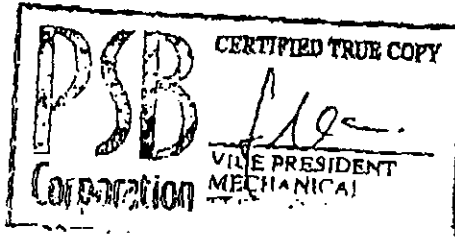
The test was conducted in accordance with ISO 140-3:1995 "Laboratory measurements of airborne sound insulation of building elements".

The test specimen was installed by Saffire Acoustic Engineering Ltd as shown in Photograph 1 and 2. Photograph 3, shows the seal joints (see appendix). GE 2 silicones (Silglaze® N10) were used to seal along the boundaries of the test sample. The test was conducted in the Acoustic Laboratory of PSB Corporation Pte Ltd.

Sample size: 3.275m x 3.075m
 Area of test specimen: 10.07m²
 Air temperature in the test chambers: 23°C
 Air humidity in the test chambers: 65%
 Source chamber volume: 75m³
 Receiving chamber volume: 83m³

TEST EQUIPMENT:

1. An Omni-loudspeaker (B&K Type 4296) was used to generate White Noise in a source room. The loudspeaker was operated at 2 positions during the test.
2. Two rotating microphone (B&K Type 4190) with their preamplifiers (B&K Type 2669) were used for the measurement of sound level difference between the source room and receiving room. The sweep radius was 1m, and the rotating speed was 32s per cycle. The duration for each measurement was 64s.
3. A frequency analyzer (B&K Type 2133) was used to record and analyze the data.

**RESULTS:**

Sound reduction index (R) values of the operable partition was tabulated in table 1: Rating was computed according to ISO 717-1 : 1996 "Acoustics- Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation".


Table 1 (The results are plotted as in Fig. 1)

Frequency (Hz) One-third octave Band.	R (dB)	$R_w - 63$ (dB)	Deficiency
100	42.9	44.0	1.1
125	50.8	47.0	0.0
160	54.1	50.0	0.0
200	49.9	53.0	3.1
250	49.1	56.0	6.9
315	51.9	59.0	7.1
400	56.8	62.0	5.2
500	60.5	63.0	2.5
630	63.3	64.0	0.7
800	65.9	65.0	0.0
1000	67.6	66.0	0.0
1250	69.8	67.0	0.0
1600	71.9	67.0	0.0
2000	73.8	67.0	0.0
2500	74.3	67.0	0.0
3150	74.7	67.0	0.0
4000	74.3	67.0	0.0
total deficiency:			26.6

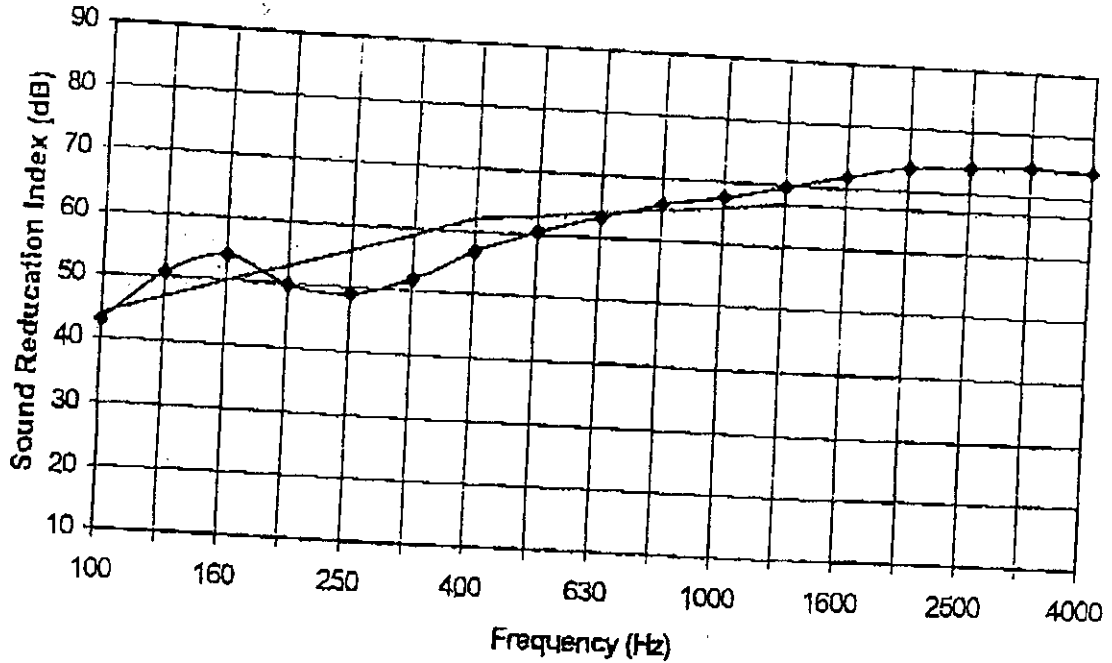
Remarks:

The Sound reduction index (R) of "Flexifold" Type B-track operable Partition panel test sample at 500Hz is 60.5 dB and the weighted sound reduction index, $R_w (C, C_T) = 63 (-1, -6)$.


Ee Min Kuen
Technical Executive


Seah Chong An
Assistant Vice President
Acoustic & Vibration Products
Testing Group

Rw of "Flexfold" Type B track Operable Partition panel sample



—●— Measured Values, R — Shifted Reference Curve, Rw63

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