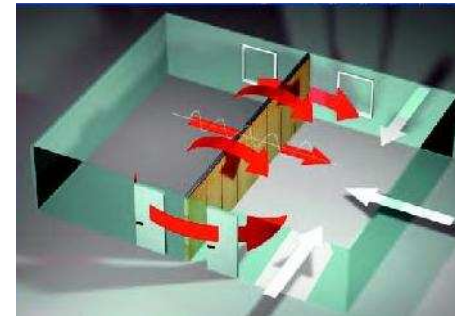


A GUIDE TO ACOUSTICS AND MOVABLE WALLS



www.brockhouse.net

Gunshot	140	Intolerable	Examples to assist selection of the correct sound insulation for the mobile partition:
Jet Engine at 30m			
Jack Hammer	130	Pain: Fireworks	
Pneumatic Drill at 1m			
High-Hat Symbol	120	Pain: Live Rock Band at 1m	Classroom lesson involving Video Presentation at approx : 75 dB
Sandblasting			
Full Symphony Orchestra Chainsaw	110	Very Noisy: Nightclub	Laboratory Test Rated Movable Wall Rw 59dB
Power Tools - General			Average Flanking Losses - 10dB
Drummer/Guitarist Piano Fortissimo	100	Very Noisy: Concert	Remaining Levels 26dB
Hair Dryers			Low Flanking Losses - 5dB
Average Personal Stereo	90	Loud: Normal Piano Practise	Remaining Levels 21dB
Busy Street			
Amplified Television/Radio	80	Loud: Amplified Radio / Television	Classroom lesson involving Amplified Speech : 70dB
City Traffic			
Vacumn Cleaner	70	Moderate-Loud: Amplified Speech	Laboratory Test Rated Movable Wall Rw 57dB
Normal Conversation - Close			Average Flanking Losses - 10dB
Soft Radio	60	Moderate: Normal Conversation at 1m	Remaining Levels 23dB
Normal Television			Low Flanking Losses - 5 dB
Washing Machine	50	Moderate-Quiet: Average Office Noise	Remaining Levels 18dB
Dish Washer			Meeting -Training Rooms/ Boardrooms : 65 dB
Quiet Conversation	40	Quiet: Low Conversation	Laboratory Test Rated Movable Wall Rw 52 dB
Rain fall			Average Flanking Losses - 10dB
Air Conditioning	30	Faint : Quiet Office or Library	Remaining Levels 23 dB
Whispering			Low Flanking Losses - 5 dB
Rustling Leaves	20	Faint: Whisper	Remaining Levels 18dB
	10	Very Faint: Recording Studio	As indicated in these examples it is important to recognise the potential losses from laboratory ratings to on-site levels. It is also important to ascertain the site performance of the product through test data.
	0		



Mobile partitions are used for sharing space for conferences, training or classrooms, etc. This kind of spatial separation requires a specific sound insulation to make optimum use of the separate rooms. The result of the sound insulation in the installed state depends largely on four factors which must be taken into consideration:

- 1) The operable wall system including fully functioning retractable seals on at least 3 standard panels and 1 closure panel has been tested in laboratory conditions in accordance with EN ISO 20 140. The test must comply with EN ISO 140-3 and the resulting measurement should be calculated in accordance with EN ISO 717-1
- 2) Sound insulation loss between laboratory and site- According to BB93 providing guidance on construction standards the average classroom requires dividing walls to attain R'w 45 dB. With site flanking losses from perfect laboratory conditions resulting at an average of 10dB the movable wall specification must be correspondingly higher, Rw 55 dB minimum.
- 3) Sound transmissions leak through areas such as ceilings, ceiling voids, floors, floor voids, adjacent walls, m&e services, windows, etc. The sound insulation of the mobile partition in the closed position is only as good as its surrounding conditions. To minimize losses through site conditions please request assistance from your local technical manager for advice on ensuring losses of over 10dB are avoided.
- 4) Access passdoors, vision units, track junction intersections in your movable partition specification will lead to losses from the standard product tested in laboratory conditions. If they are needed a solution can be found, assistance should be requested from your local movable wall technician.

Movable Acoustic Walls & Sliding Folding Partitions