THE SOUNDS OF SILENCE

"In restless dreams I walked alone
Narrow streets of cobblestone
'Neath the halo of a street lamp
I turn my collar to the cold and damp
When my eyes were stabbed by the flash of a neon light
That split the night
And touched the sound of silences"

Paul Simon, 1964

The search for silence knows no age, gender, race or other barrier. Unwanted sound is a form of pollution that some consider deadly. Unwanted sound can be ruinous: it can ruin a beautiful concert; it can disturb a good night's sleep; it can reduce security; it can compromise the workplace; and it will cause hearing loss in certain instances.

Keeping sound out of an area, and keeping sound in another, is a major concern of architects, engineers, acoustic consultants' and, at one time or other, just about every human being on this earth. Manipulating the transmission of sound, (sound attenuation), is an exact science. Commonly referred to as "noise control" or "sound proofing", sound transmission control is an issue which must be addressed in the design of any structure. Whether a two bedroom row house, a university performing arts centre, a business tower, an airport terminal, or a board room the transmission of sound is consistently a major design concern.

Jack Shinder, President AMBICO Limited

In an article published in the international trade magazine, *Door & Hardware Institute Magazine,* "Crashing Through The Sound Barrier", Jack Shinder, President of AMBICO Limited, notes that, "sound seeps through walls and floors, as well as doors. Noise control in doors is particularly difficult to achieve because a door, unlike a wall or floor, must be operable. Further, walls and floors have the luxury of achieving their acoustic goals in a 6" to 9" thick space, whereas architectural aesthetics demand that an acoustic door appear and function as a normal 1-3/4" (44 mm) thick door. It must be understood that in order to meet and maintain the STC rating required, the door and frame, seals and hardware, must act as one unit or assembly, with each element performing at the required level. Few firms in North America possess the knowledge and the manufacturing capability to develop a door and frame product which meets the performance standards required by architects and engineers."

Shinder believes that, generally speaking, many professionals involved in the construction industry, fail to comprehend the concept of "Sound Transmission Class" (STC), and the intricacies of designing door and frame assemblies which will maintain a required performance rating, while at the same time, meeting all other design criteria. The article, which provides details and technical information regarding the science of sound attenuation, can be accessed directly on the AMBICO Limited web site at:
http://www.ambico.com/news/crashing.asp

Typical product CAD details can be viewed at:

http://www.ambico.com/products/w_acoustic_cad.asp

As well, photographs of several acoustic doors may be viewed at:
http://www.ambico.com/gallery/index.asp

For several decades, AMBICO Limited has been engineering acoustic door and frame assemblies to meet exacting standards. These products are manufactured in wood or steel, and are performance-rated at leading independent laboratories to an optimum ("Sound Transmission Class") rating of STC 53. Higher ratings have been obtained in specific instances where door thicknesses exceed 1 3/4". Although there are "standard" acoustic doors, in most cases, almost every project requiring "STC" products will include an intricacy here or a nuance there which will require that the manufacturer put to work its design capabilities to provide the exact door and frame assemblies specified. The majority of the projects specified require full design and engineering expertise. As a result Because of the range of this expertise found "in house", AMBICO Limited has the ability to deliver the most complex door and frame assemblies specified by engineers, architects and acoustic consultants.

The support team located at AMBICO's office headquarters and manufacturing facility includes professional engineers, draftsmen, and estimators, all working with leading edge modeling software and independent engineering consultants. Both the President (Jack Shinder) and Vice-President (Judah Silverman) of AMBICO Limited have years of experience with the complexities inherent in the design and manufacture of acoustic door and frame assemblies. In fact, the members of the design team average over 15 years experience in the specialized acoustic door/frame industry.

Judah Silverman, Vice-President
AMBICO Limited

Jean-Guy Prud&#65533;homme, Plant Manager
AMBICO Limited

Once the design aspects of the door and frame assembly are completed, the action moves to the manufacturing plant, where the visions of the project owners, architects, and engineers, will become a reality. There is no assembly line found at AMBICO Limited. Each individual is an expert in his particular area of the manufacturing process. Jean-Guy Prud'homme has overseen the manufacturing of doors and frames for AMBICO for nearly four decades.