Acoustic Enclosure

Product Data

ISTIQ Acoustic Enclosure are available in modular forms and they come in various designs such as frameless, welded and bolted concepts. The panels are which make the installation at site fast and easy. The enclosure are provided with hinged doors, windows, ventilation systems and any other features which may be specified. The panels can be installed and disassembled as required to accommodate future changes in plant layout.

Applications

ISTIQ Acoustic Enclosure are one of the most effective means for containment of excessive noise and for isolation of workers from the noise. Even where silencers are used, these can treat only the air-borne noise. The treatment of mechanical noise from the blower, motor etc. is beyond the scope of the silencer. Thus, in order to achieve low noise levels that are often specified, noise enclosures are required. **ISTIQ Acoustic Enclosure** are individually designed to give the required noise attenuation and ease of accessibility. A well designed enclosure can help reduce the noise created to acceptable limits.

Typical application are on Press Machines, Compressors, Pumps, Generator Sets, Control Rooms and Sound Measuring Rooms.

Selection Guidelines

When designing an enclosure as acoustic treatment system, there are a number of factors that should be considered to maximize the design in terms of performance and cost. A few of the items that should be taken into consideration include:

- Acoustic Environment into which machine need to be enclosed
- Noise level to be achieved i.e. - at 1 or 3 meter away
- Heat rejection of the equipment to be enclosed Maintenance accessibility requirement
- Numbers and size for observation windows
- Ventilation requirement and arrangement within the room
- Lighting and power points
- Overall Dimension of the enclosure
- Consideration on the aesthetic look

Construction

ISTIQ ACOUSTIC ENCLOSURE are made of from metal sheet and perforated sheet. In between, acoustic infill (rockwool or fiber glass) is used to absorb noise. The thickness of these panels are available in 50mm, 100mm and 150mm. Different acoustic infill and different thickness of metal sheet are used depending on the application to ensure excellent performance and cost effectiveness without sacrificing quality.

Specific percentage of perforation of galvanized sheets, which hold the infill, is specially selected to give the optimum overall noise absorption coefficient.

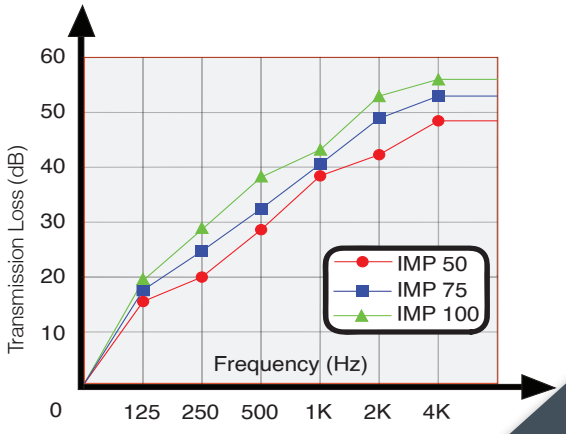
Features

Some of the popular features acoustic enclosures on ISTIQ include:

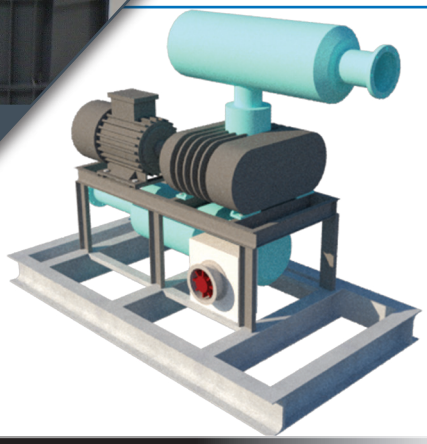
Material Specifications	
A. Outer casing	1.2 mm thk. Mild Steel Plate
B. Inner casing	0.5 mm thk. Perforated G.I
C. Percentage of perforation	10% to 40%
D. Panel thickness	50 mm to 150 mm thk.
E. Frame and support	2.3 - 3.2 mm M.S Hollow Section
F. Intermediate	2 x 9 mm thk Gypsum Board and 40 to 100 kg/m3 density Rockwool
G. Rockwool Thermal Conductivity	0.034 W/mK at 20 deg C
H. Observation Panel	2 x 5 mm thk transparent plexiglass
I. Glass panel rubber	14 'L Normal type
J. Lock set	Takigen design w/o key
K. Door hinges	4" stainless steel
L. Acoustic Seal	Rubber c/w magnetic seal
M. Finishing	2 coat colour of choice

STC Rating & Sound Absorption

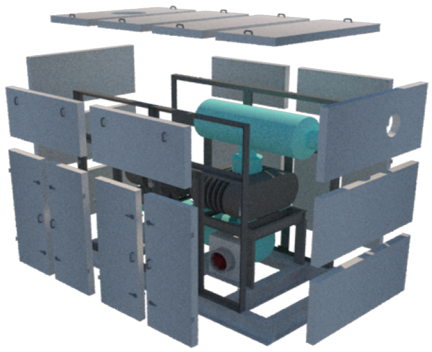
Model	STC	NRC
IP 50	35	0.95
IP 75	38	0.95
IP 150	42	1.00



From Design to Reality



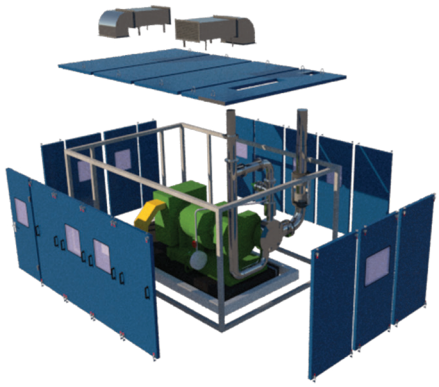
Blower Noise Soure



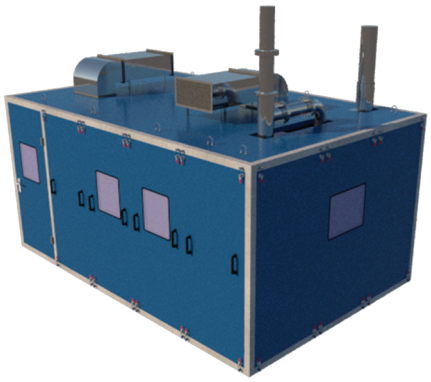
Test room Assembly

Blower Enclosure

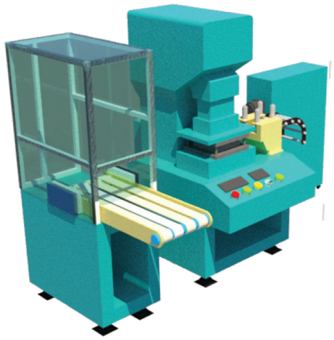
Compressor air flux



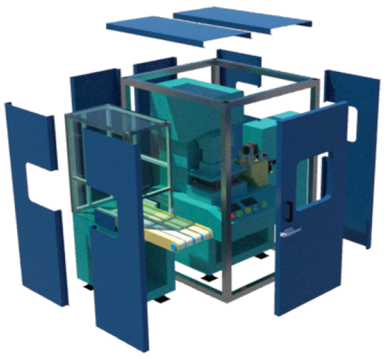
Frame & Panel Assembly



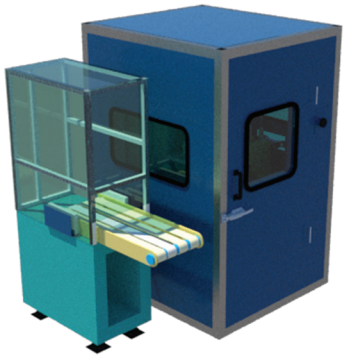
Actual Enclosure



Feeder Machine



Bolted Concepts



Enclosure is ready

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