



ACOUSTIC ENCLOSURE

Custom built acoustic enclosures for Steam Turbines, Gas Turbines, Boiler Feed Pump, Compressors, Turbo Blowers, Bolt Makers and Nut Formers and any other noisy machines

Acoustics India

Acoustics India Private Limited is an ISO 9001 certified full service solution driven engineering company with a manufacturing capability of manufacturing noise pollution control equipment since 1988. With a vast experience and a clientele across disciplines, our range of products encompass Steam Vent Silencers, Acoustic enclosures, Diesel generator noise control packages, Compressor noise control packages, Silencers for compressors/ fans/ blowers, Sound proof doors, Acoustic treatment for buildings/ ducting/ test facilities and design of complete noise control packages, comprehensive noise survey and analysis.



Description

Acoustic Enclosure comprises of modular structural frames made out of M.S. angles and pre-fabricated high performance acoustic panels. The enclosure is designed acoustically and mechanically to the desired noise level specified by the customer. The thickness of the panel is based on the design requirement. The modular structural frame could be easily assembled since they are constructed as bolted structure. The construction is so designed to facilitate easy dismantling. Acoustic panels are designed in such a way that it can be easily dismantled with the help of quick releasing clamps. This facilitates easy maintenance.

The enclosure is provided with sound reducing doors. In order to view the critical areas of the machine, double glazed glass window is provided. To take away the heat built up inside the enclosure, ventilation air intake and exhaust silencers are provided with blower for forced ventilation. The acoustic enclosures are provided for compressors, gas turbines, fans, Diesel Generator sets, press and any other noisy machine.

Case Study

Noise Reduction of Compressor - BHILAI STEEL PLANT

AIPL designed a suitable noise control system to reduce the noise emanated from the compressor well within 85 dBA limit. The temperature level inside the acoustic enclosure was to be maintained below 50°C. The compressor package consists of a large multi-stage compressor, 9500 KW motor, after coolers, intercoolers and moisture separator.

The noise control scheme consisted of acoustic enclosure for the compressor, brick walled enclosure for the intercoolers and after coolers with sound proof industrial doors with a suitable ventilation system to remove the heat dissipated from the compressors, motors, after coolers, intercoolers and moisture separators.

The ventilation air sucked through the intake silencers takes away the heat dissipated by all the coolers and moves up through the floor grills and gets inside the compressor acoustic enclosure to take away the heat from the compressor and motor and escape through the exhaust blowers mounted on the roof of the enclosure with ventilation exhaust silencers.

After installing the system, the noise level was found to be within 85 dBA around the enclosure. The temperature was measured inside the enclosure and found to be within 50°C.



NOISE D

Acoustic Enclosure

In addition to the above, we have built an ACOUSTIC ENCLOSURE FOR ROLLER TEST CHAMBER for DURR India Pvt Ltd, for their Project at BMW Car Plant, Chennai and an ACOUSTIC ENCLOSURE FOR 40MW MOTOR DRIVEN COMPRESSOR for Blast Furnace for JSW Limited, Bellary.

Acoustic Roller Test Chamber

Customer: Durr India Pvt Ltd

Project: BMW Car Plant, Chennai.

AIPL designed,engineered and supplied a noise control system for controlling the noise generated during roller testing of cars. The acoustic roller test chamber was designed to limit the noise level within 75 dBA. The chamber was provided with forced ventilation system consisting of centrifugal blowers and the exhaust ducted to outside.The acoustic chamber was provided with automatic sliding doors at both the ends of the chamber for facilitating movement of cars in & out of the chamber. The acoustic chamber had interlocks to ensure testing is done only if both the entry and exit doors are at closed position. After installing the system, a noise survey was conducted and the noise level was found to be within the specified limits.



Acoustic Enclosure for 40MW Motor Driven Turbo Blower

Customer: JSW Limited, Bellary

Project: Blast Furnace 3 & 4

AIPL designed, engineered and supplied a noise control package to reduce noise emanated from a 40MW motor driven turbo blower. The noise control package consists of acoustic enclosure for the turbo blower with sound proof doors, ventilation system to remove the heat dissipated from turbo blower and blow-off silencers to control blow off noise.

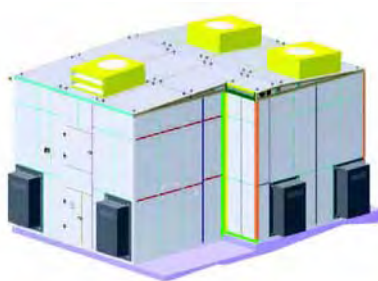
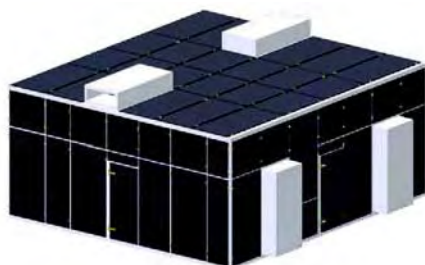
Acoustic Enclosure under Installation around the turbo blower



Acoustic Enclosure Installed around the turbo blower



3D MODELS



CLIENT LIST

Steel & Power	Engineering	Chemical & Fertilizers	Oil / Petro Chemical
Tata Steel	EIL	FEDO	GAIL
IISCO	RIL BECHTEL	HFCL	KRL
SAIL	Andrew Yule & Co	CFCL	HPCL
Visag/Bokaro/Bhilai Steel	Linde/BOC India	SPIC	BPCL
Jindal/Durgapur Steel	L&T/L&T MHI	RCFL	BRPL
JSPL	UHDE/UHDE GMBH	MFL	MRPL
BHEL HYD/HWR/BPL	Technimont ICB	EID Parry	ONGC
NTPC	BHPV	GNFC	RIL
MSEB/KSEB/TNEB	SABIC	Indo-Gulf	IOCL
Korea Heavy Industries	KTI	IFFCO	ESSAR Oil
Alstom Projects	MECON	GFCL	Quippo Infrastructure
BSES	Indian Railways	GSFC	Adyard Abu Dhabi
Deutsche Babcock	Howden India	Ultra Tech Cements	PetroFac International
Thermax Babcock	Siemens	Heidelberg Cements	Southern Petrochemical
Mitsui Babcock	Atlas Copco	MCSC	Haldia Petrochemicals
IJT	Air Liquide	FLSmidth	Heurtey Petrochemicals
Torrent Power	Thyssen Krupp Industries	Jubilant Organosys	Numaligarh Refinery
ESSAR Steel	Praxair India Pvt Ltd	Ranbaxy Laboratories	
Mono Steel	Copes-Vulcan	Sudha Agro	
METSO Power	Jubail Chemicals	Shree Cements	
Belleli Energy	Ansaldo Caldaie Boilers	Saurashtra Chemicals	
Deutz	Tata Motors Limited		
Mazagon Dock	SPX Process Equipment		
Stewards & Llyods	Downer Energy Systems		
GIPCL	GALFAR Engineering/PDO		
Hindalco	TOPS Technologies / CTCI		
INOX AIR Products	ABB		
BGR Energy	Bateman Engineering		
Caterpillar	DRDL		
DF Power Systems	Punj Llyod		
TD Power Systems	Spirax Marshall		
	Samsung Engineering		

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