Noise Control Solutions

For Power Generation, Oil and Gas Applications

iac acoustics

making the world a quieter place

Power Generation Solutions

IAC Acoustics, your leading partner in providing noise control solutions for the power generation, oil and gas industries. IAC Acoustics has solutions for controlling noise at the following facilities:

- Nuclear power plants
- Concentrated polar power
- Thermal power plants (combined cycle, coal fired, gas and oil fired plants)
- LNG trains
- Chemical plants
- Gas pipelines
- FPSO
- Process plants
- Refineries

OEM noise control solutions for:

- Gas Turbines
- Diesel, natural and waste gas engines
- HRSG, WHRB, CFB, super critical and industrial boilers
- Air or Gas Compressors & Blowers
- Flue Gas or Forced Draft Fans
- Pumps
- Gensets

In addition to solutions for the power generation and other associated industries, IAC Acoustics can also provide:

- Silencers - Absorptive, reactive, circular, rectangular, atmospheric or pressurised for any gas and temperature range
- Acoustic enclosures - Outdoor or indoor, on-base or off-base, complete with ancillary equipment
- Acoustic room treatments, including ventilation, acoustic linings, acoustic doors and windows
- Acoustic screens and barriers

Complete Solution Guide

Noise Control Solutions / Applications	Air Intake Systems	Exhaust Systems	Noise Enclosures	Venting to Atmosphere	Ventilation & Accessories	Turnkey
Diesel & Gas Engines	• Sound attenuators • Static or self-cleaning filters • Ducting • Instrumentation	• Standard silencers (15 to 50 dB(A) attenuation) • Custom-made silencers (up to 60 dB(A) attenuation) • Reactive / absorptive silencers • Ducting • Expansion joints • Catalyst filters • External lagging • Stacks	• Gensets / containers		• Air intake and discharge silencers • Duct silencers • Acoustic louvres • Acoustic doors and windows	• Acoustic containers • Gensets • Canopies • Turnkey air intake and exhaust systems
Gas Turbines	• Sound attenuators • Static or self-cleaning filters • Ducting • Instrumentation	• LF and HF primary silencers • Rectangular by-pass silencers • Cylindrical primary silencers • Cartridge inserts • Expansion joints • Stacks	• On base and off-base canopies and enclosures • Acoustic screens	• Start-up vent silencers • Blow-down tanks	• Air intake and discharge silencers • Duct silencers • Acoustic louvres • Acoustic doors and windows	• Complete gas turbine acoustic packages • Complete filter houses • Complete exhaust systems
HRSG / WHRU / Boilers	• ID and FD fan silencers	• Cold stack silencers • Stack insert silencers • Duct silencers	• Inlet duct shrouds	• Safety and start-up vent silencers • Blow-down and flash tank silencers	• Acoustic louvres • Forced ventilation silencers	• Complete acoustic boiler houses
Compressors	• Sound attenuators • Static or self-cleaning filters • Ducting • Instrumentation	• Inline silencers (pressure vessels)	• On base and off-base canopies and enclosures • Acoustic screens	• Blow-off silencers	• Air intake and discharge silencers • Duct silencers • Acoustic louvres • Acoustic doors and windows	• Complete compressor acoustic packages • Complete filter houses
Valves				Vent silencers for any kind of compressed gas including: • H_2 • O_2 • CO_2 • Steam • N^2 • Natural gas		
Large Fans	• Rectangular silencers • Cylindrical silencers • Fibre-free silencers • Resonator silencers (Fine Tuned)		• Motor noise enclosures			
Pumps			• On base and off-base canopies and enclosures • Acoustic screens		• Air intake and discharge silencers • Duct silencers • Acoustic louvres • Acoustic doors and windows	

Vent Silencers

Since 1949, IAC Acoustics has gained a huge amount of experience in producing rugged, high quality vent silencers for the release of compressed gas and steam to atmosphere. Our experience includes silencers made for N_2, O_2, H_2, steam, air and natural gas plus many more.

Vent silencer reliability is highly important due to the pressures encountered in certain applications. This means that products need to be manufactured to set standards, combining high pressure piping to diffuse the gas and absorbing technologies to reduce the amount of noise generated by the release valve.

- Guaranteed noise performance
- Custom made for each specific operating condition
- PED 97/23 EC compliant whenever required
- Mechanical design as per major codes including: ASME, EN and RCC-M

Vent silencers from IAC Acoustics are an approved supplier for some of the most demanding industries and applications available, including nuclear, oil and gas, LNG trains and super critical boilers.

Vent silencers are typically used on safety valves, control valves, snort valves and ejectors.

In addition to manufacturing vent silencers, IAC Acoustics also offers a range of accessories, including flanges, rain hoods, sliding inlets, multiple inlets, bird screens, supporting brackets and external lagging.

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Splitter Silencers

Splitter silencers are made of parallel baffles inserted into a duct (rectangular or cylindrical) or in a separate casing with connecting flanges for easy installation.

Depending on the application, the casing material can be carbon, galvanised, stainless or cor-ten steel. Other materials can also be used to suit the application requirements or to meet specific operating conditions.

All of the acoustic material used is asbestos free and selected depending on the application (HVAC, hot gas, dirty) and can can be protected with a mix of glassfiber cloth and/or metallic wire mesh.

For flue gases charged with dust or particles, resonator silencers can be provided for maintenance free applications.

- Guaranteed noise performance.
- Guaranteed pressure drop.

Typical applications include: Air intakes for ID and FD fans, gas turbine exhaust by-pass stacks, HRSG stacks, FGD systems.

Availability: Complete silencers with separate casing, stack or duct inserts and loose baffles.

Accessories: Supporting brackets for hot or cold casing designs, welded or bolted construction.

Inline and Cylindrical Silencers

Inline Silencers

Inline silencers are usually located downstream of compressor outlets and are used to control the noise radiated by large pipe networks.

IAC Acoustics has a wealth of experience in providing noise control solutions for both reciprocal and centrifugeal compressors. Through measurement, analysis and modelling, IAC Acoustics can also control and help prevent pipe network pulsation problems by defining the right place to insert the silencer in the pipework for optimised efficiency.

- Guaranteed noise reduction performance
- Guaranteed pressure drop
- PED 97/23 EC compliant whenever required
- Mechanical design as per major codes, including ASME, EN and RCC-M

Inline silencers are typically used on compressor outlets, pipe networks and ejectors among other applications.

In addition to providing inline silencers, IAC Acoustics, can also offer accessories including water or oil removal fittings and sand traps.

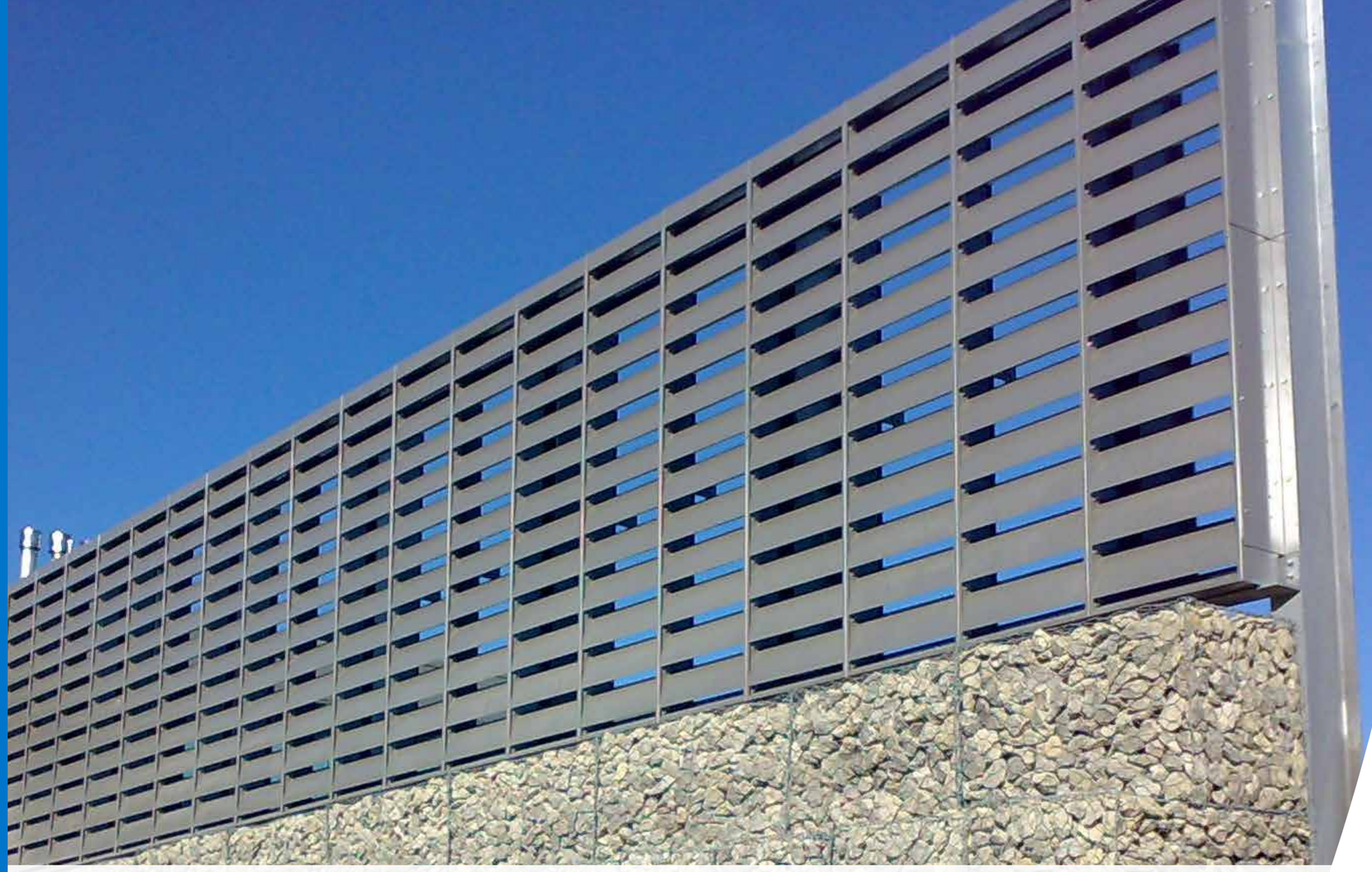
Cylindrical Silencers

Cylindrical silencers provide a compact and reliable solution for reducing noise in ducts with relatively small diameters.

- Guaranteed noise reduction performance
- Guaranteed pressure drop
- Standard or custom-made depending on the application
- Approved supplier for most the most demanding applications, including nuclear, oil and gas, LNG trains and super critical boilers

Cylindrical silencers are typically used in engine exhausts, air intake systems, ventilation intakes and air discharges.

Accessories available for cylindrical silencers include, expansion joints, raincaps, filters, external lagging, spark arrestors, elbows and anti-vibration mounts.



Acoustic Louvres

Where natural ventilation is required in noisy environments, acoustic louvres can provide aesthetic and efficient solutions.

- Guaranteed noise performance
- Guaranteed pressure drop.
- Standard design and modules
- Various materials of construction

For use on : Diesel or gas plants, compressors, noise enclosures, acoustic buildings.

Acoustic Louvres and Enclosures

Acoustic Enclosures

To prevent airborne noise transmission, the best solution is to use an acoustic enclosure around the noisy equipment. Besides the noise performance, IAC Acoustics will also take into account your needs for maintenance, weather protection, fire protection and ventilation.
All acoustic enclosures designed and manufactured by IAC are complemented by over 60 years in designing high performance acoustic doors and windows, ensuring noise is reduced to an absolute minimum.

- On skid or off base design
- Modular and pre-cut design for easy erection on site
- Integration of IAC proven solutions for acoustic doors, windows, ventilation systems and ancillary equipment
- Turnkey Solutions
- Product Development with OEM Customers for specific demands

For use on: Generators, compressors, gas turbines, pumps, fans and motors.

Enclosures can be delivered as: Modular systems in kit-form, containerised turnkey solutions or complete acoustic buildings.

Accessories available include: Acoustic doors and windows, HVAC silencers, fire supression systems, lighting, cranes and fuel tanks.

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Customers

OEM Equipment Contractors

- Alstom
- Ansaldo
- Caterpillar
- Centrax
- CMI
- Cummins
- Deutz
- Eneria
- F G Wilson
- Finanzauto
- Gascor
- General Electric Power Systems
- Jenbacher
- John Deere
- Kilorskar
- MTU
- Mitsubishi
- Nooter Eriksen
- Paxman
- Perkins
- Pratt & Whitney
- SDMO
- Sulzer Diesel
- SEMT Pielstick
- Turbomach
- STF
- Thermax
- Wartsila
- Waukesha
- 2H Energy

Contractors

- Chiyoda
- Fauche
- Foster Weeler
- Japan Gas Corporation
- Kellogg
- Snamprogetti
- Technip
- Total
- Nuovo Pignone
- Spie Trindel

End Users

- ERDF
- Exxon Mobil
- GRT GAZ
- Reliance
- Shell
- Total
- Qatar Gas
- Qatar Petroleum

(Non-exhaustive list)

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