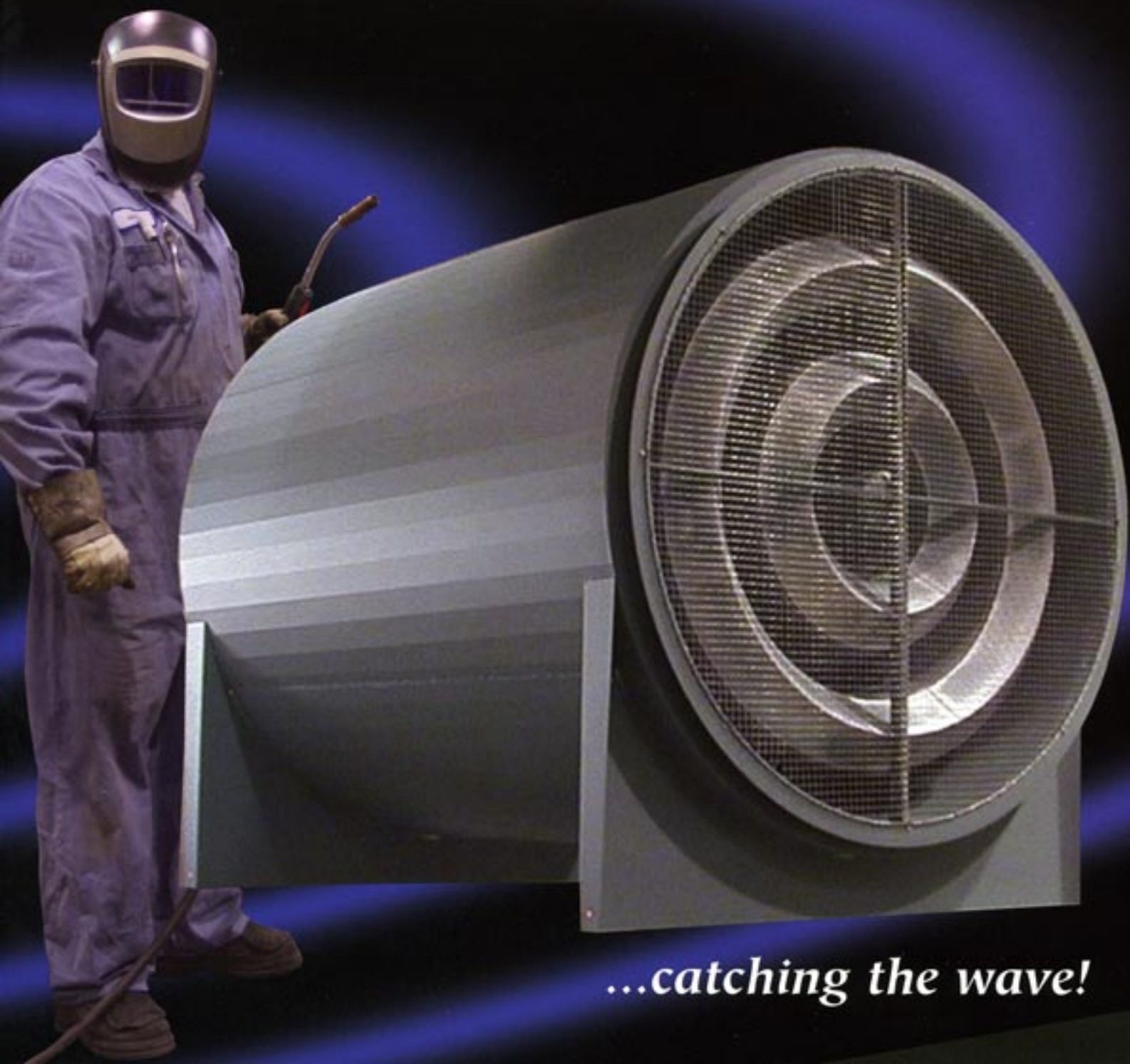


VAW
systems
NOISE CONTROL

INDUSTRIAL NOISE CONTROL PRODUCTS



...catching the wave!

A TRADITION OF EXCELLENCE

PASSION FOR THE CHALLENGE

...it's in everything we do.

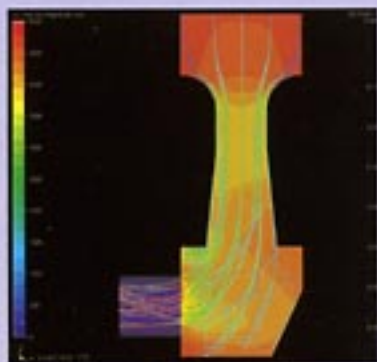
Meeting the challenge of change...

VAW Systems has evolved as a leading designer and manufacturer of industrial noise control and filtration systems. Decades of association with world renowned companies such as Howden, FlaktWoods, Twin City Fan, New York Blower, and others have led to a heritage of engineering excellence and positioned VAW Systems at the forefront of the industry.



Large Circular Exhaust Silencer built in the late 1960's

Meeting the challenge of innovation...



VAW Systems' system approach requires evaluation of each component of a mechanical system to assure optimum product application, selection and design. This total system evaluation allows "Continuous Improvement" of VAW products to successfully meet the demands of a changing market.

VAW Systems' acoustic and aerodynamic database is the result of numerous tests performed in house and at independent laboratories, to the ASTM E-477 sound standard.

VRSB inlet silencer for a fan application modeled using CFD software to optimize flow characteristics

Meeting the challenge of quality...

VAW Systems has earned a reputation as the quality choice in the noise control industry based on innovative design, selection software, competitive pricing, project management and compliance with certified Quality Assurance and Welder Qualification Programs. Successful Quality Assurance is a corporate philosophy which is executed from the contract bidding stage to final shipment and installation of the equipment. Total company involvement in verifying quality at each step of the order process assures manufacturing excellence and adds to a continuing record of quality service. VAW is ISO 9001 certified and qualified to Canadian Welding Bureau (CWB) welding standards. VAW's quality system has passed many rigorous audits, performed by our customers.

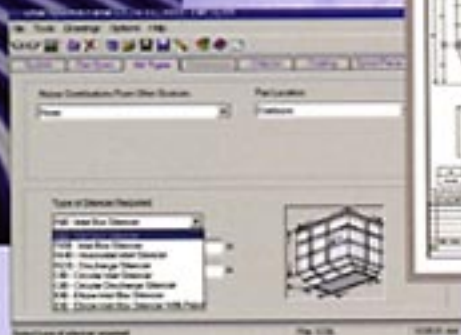


TECHNOLOGY & TECHNIQUE

VAW achieves excellence with the right combination of inspiration, innovation, passion and spirit.

Customer Support

Fundamental to the success of VAW Systems is the project management concept. Our mandate is excellence in client communication, engineering and design, cost management, scheduling and co-ordination of all project activities.



Fansil – Silencer Selection Software

Years of experience have enabled VAW Systems' application engineers to develop sophisticated computer programs and systems, which minimize expensive product design and engineering time. Representatives and engineers agree the software is second to none. Silencer selection, drawings, and pricing are available in just minutes.

Meeting Our Customers Needs:

- Acoustical Performance
- Aerodynamic Requirements
- Structural Requirements
- Cost Effective and Competitive
- Energy Efficiency
- Easy to Use Software

Modern Production Facility

VAW Systems' multi-skilled personnel utilize a modern 64,000 sq. ft. manufacturing facility in Winnipeg, Manitoba, Canada. With manufacturing contacts in Asia and Europe, customers have a choice of economical, efficient shipping locations for their international projects.



VAW Systems' 64,000 sq. ft. Winnipeg Production facility

INLET SILENCERS



VRIB with optional transition



VCIB silencers ready for shipment



VRIB for mine ventilation

VRIB – Rectangular Inlet Box Silencer

VCIB – Circular Inlet Silencer

The VRIB and VCIB silencers are designed to attenuate inlet sound levels to an acceptable decibel level while maintaining proper fan inlet conditions. In some cases, an optional filter box, rainhoods, louvres, support brackets or piezometer flow measurement device can be

installed on the silencer. The silencers are designed for both horizontal and vertical installations utilizing the latest technology to ensure that the design meets or exceeds the customer's requirements.



Custom VRSB Inlet Box silencer on Illinois Blower Fan



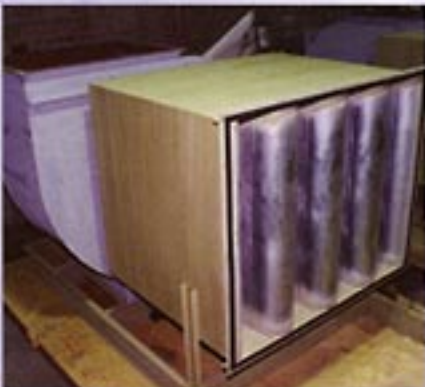
Elbow Inlet Box silencer on Fan Equipment Blower

VRSB and Elbow Rectangular Silencer

The VRSB silencer is a special elbow design furnished to attenuate sound energy emitted at the fan inlet and to turn the air. It combines a conventional silencer section with an inlet box assembly into one freestanding unit. The inlet box assembly includes attenuating, as well as, aerodynamic components to reduce sound energy, and minimize pressure losses. It can be used on both centrifugal and axial fans.

VRHB- Rectangular Horizontal Inlet Box Silencer

The VRHB silencer is designed for horizontal inlet flows and offers a wide range of insertion loss and pressure drops. It is well suited for installation with space limitations. Legs are standard and optional equipment includes filter boxes, rainhoods, louvres, support brackets and piezometer flow measurement devices.



VRHB silencer on the inlet of a fan

DISCHARGE SILENCERS



VRDS for an automotive plant



VCIB repackable discharge silencer

VRDS - Rectangular Discharge Silencer

VCIB - Circular Discharge Silencer

The VRDS and VCIB silencers are custom designed for discharge applications. Optional repackable or cleanable configurations are available in both designs where environments may contain contaminants or particulate. The silencers can be installed both vertically and horizontally. Aerodynamic modeling and testing ensures proper flow through the discharge, specified pressure drop and desired acoustic performance.



Stack Insert Silencer

VCRS- Concentric Ring Silencer

VRPB- Rectangular Parallel Baffle

The stack insert's can be used where existing stacks are a source of noise concern. No retrofit is needed as the baffles are supplied with brackets ready for installation on site. The baffles are lowered into place and secured by welding or bolting. Stack inserts can be used in a variety of applications (HRSG, Exhaust Bypass, Selective Catalytic Reducers, etc.).



Engine / Blow Off / Vent Silencers

VAW has supplied Blow Off Silencers for a variety of applications including compressed gas, high temperature steam, and condensing chemical environments. Engine silencers are available for reciprocating and turbo machines. Silencers are designed to attenuate and suppress peak frequencies to meet OSHA criteria or equivalent standards.



Compressor Vent Silencer

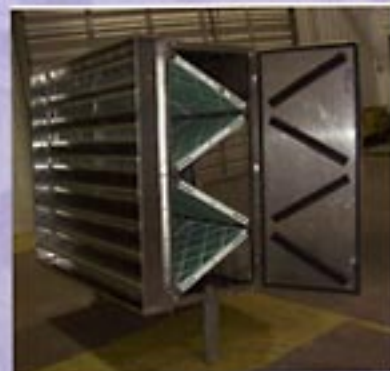
FILTER HOUSES

Indoor / Outdoor Vertical / Horizontal Installation Options for 1,2,3 & 4 Sided Inlet

Filter houses are utilized to ensure that the entering air stream meets certain cleanliness standards. Filter houses are designed to accept rainhoods, louvres, support brackets or piezometer flow measurement devices and can be equipped with:

- Pre-filters – Merv 1 to 8
- Final filters – Merv 9 to 16

All designs incorporate sloped roofs to prevent water accumulation and come with vertical or horizontal outlets. Larger units are of modular design for the addition of system options depending on environmental needs.



Custom Filter Houses in Aluminum and Stainless Steel

CUSTOM APPLICATIONS

Tuned Resonant / Tuned Dissipative Baffles

The VTRS silencer is a non-plug baffle design that incorporates media (dissipative) or no media (resonant) and are specifically designed for high temperature, dirty air stream stack discharge applications where the baffles are tuned to remove the tonal blade pass frequency of a constant speed fan. The unit is fabricated in sections for ease of transport and assembly.



TIG welding is used for precise manufacturing specifications.



Clean Room sound measurement

Clean Room Attenuation

Clean Room Attenuation must be manufactured and packaged in a clean room environment to prevent contamination before installation on site. AMD and Applied Materials utilized VAW to solve noise control problems in their clean rooms, and we used our Class 10,000 clean room to manufacture their product.



TUNED RESONANT Baffles for an INJECTED DRIFT Fan WITH POTENTIAL PARTICULATE LOADING. FLEX GAS/DAIRY/ALUMINUM REACTION EGGBOROUGH POWER STATION

VTRS Baffles for Eggborough Power Station, UK.

Enclosures / Barriers / Shrouding

Enclosures are designed and built to customer specifications and range from light, knock down, tongue and groove panel construction to heavy duty turbine housings. Accessories available are ventilation, cooling, silencing, filtration, lighting systems, access doors/panels and acoustic louvres. Enclosures can be fabricated from hot rolled steel, galvanized steel, stainless steel or aluminum. Typical applications include fan, compressor, engine, turbine and pump enclosures.



ACCESSORIES AND OPTIONS

Weather Hood Styles



VRH-1



VRH-2



VRH-3

Hoods and Louvres

VAW Systems offers a number of devices for weather protection to minimize the entry of precipitation. These include the standard VRH-1 (gable end) and VRH-2 (gooseneck) rain hoods for vertical applications, the VRH-3 and VRH-6 for horizontal applications. In-house designed louvres can also be used when interference issues are encountered.

Flow Measurement

Flow measurement used for process control can be provided with Piezometer Tubes, Piezometer Rings or Voluprobes, located at the inlet where air flow is laminar.



FD Fan with Inlet
Piezometer Ring



Volu-Probes



Flexible Connections for China.

Flexible Connections

Flexible connectors are available in circular or rectangular geometries for inlet or outlet applications. Options available:

- High/Low temperature
- Chemical Resistant
- Acoustical / Non-Acoustical
- High Velocity Internal Deflector Plates

Custom Coatings

VAW Systems is capable of applying a variety of air-dried custom coating systems. VAW Systems' facilities include a large 26' x 33' blast booth and a 40' x 41' paint bay. We use the latest technology, including electrostatic and airless paint equipment.



VAW Systems strives for excellence in adapting to customers' Noise Control and Filtration needs with proven custom products and unique computerized engineering solutions.



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