

For every sound challenge BAC offers the perfect solutions



The sound requirements of any heat rejection equipment depend on the actual environment in which it will be located.

Each environment has its own acoustical conditions and can be ranked in five main application areas, ranging from least to most stringent acoustical requirements : these are industrial, urban, suburban, residential and rural.

BAC Product offering - Designed for Silence



BAC offers a complete range of both centrifugal and axial fan products, each having their own specific advantages, and all designed to meet the lowest possible sound emissions. The acoustical achievements of axial and centrifugal fan products are comparable and can be summarised in the following table :

	Acoustical Requirement	Centrifugal Fan Products	Axial Fan Products
	Rural	Heavy sound attenuation	*
	Residential	Medium sound attenuation	Whisper Quiet Fans (without sound att.)
	Suburban	Light sound attenuation	Low noise fan and intake & discharge sound att.
	Urban	Standard (no sound att.)	Standard, low noise fans
	Industrial	Standard BAC centrifugal and axial fan products offer a better sound performance than is typically required for industrial applications.	

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* Rural applications are less frequent and require centrifugal fan units.



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Research and Development for Products Designed for Silence

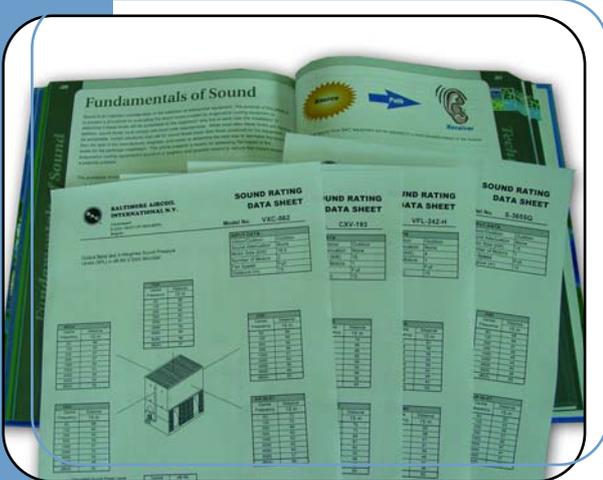
At BAC, thermal rating and acoustical test programs go hand in hand, providing reliable data for a wide range of operating conditions. Sound tests are conducted for all equipment with and without sound attenuation at various directions, distances and fan speeds. Actual sound rating data are then published by BAC for both centrifugal as well as axial fan units.



The result of BAC's extensive R&D sound program is in the broadest and most effective sound reduction offering available in our industry today.

BAC's Sound Data Sheets

BAC provides sound pressure data per octave band and sound power data for all four sides and the top of the unit. For indoor applications BAC provides partial sound power data at both air inlet and discharge.



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BAC's Centrifugal Fan Sound Attenuation Options

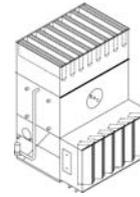


Light Sound Attenuation



VX-product line : XA

- Discharge attenuator with vertical baffles
- Intake attenuator with angled baffles



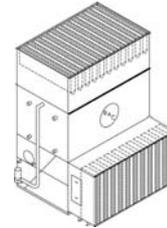
XA

Medium Sound Attenuation

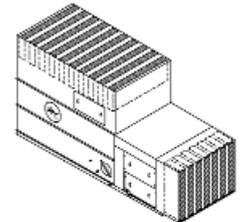


VX-product line : XB

- Discharge attenuator with vertical baffles
- Additional and straight baffles at intake



XB



HS

VL-product line : HS

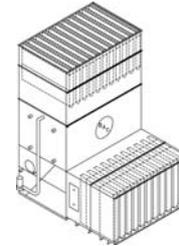
- Discharge attenuator with vertical baffles
- Intake attenuator with straight baffles

Heavy Sound Attenuation

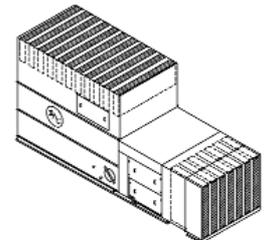


VX-product line : XC

- Double discharge attenuator with vertical baffles
- Double intake attenuator with straight baffles



XC



HD

VL-product line : HD

- Discharge attenuator with vertical baffles
- Double intake attenuator with straight baffles

BAC's axial fan sound reduction options

Low Noise fans with full sound attenuation



S1500 Product Line

- Standard low noise fan
- Cylindrical baffles at intake side
- Insulated discharge attenuator without baffles



S3000D, FXV-D & CXV-D Product Lines

- Standard low noise fan
- Cylindrical baffles at intake sides
- Insulated discharge attenuator without baffles



Whisper Quiet fans



S1500 Product Line

- Single piece steel black hub
- Aluminium hinged blades with unique end caps
- Allowing individual removal at standstill

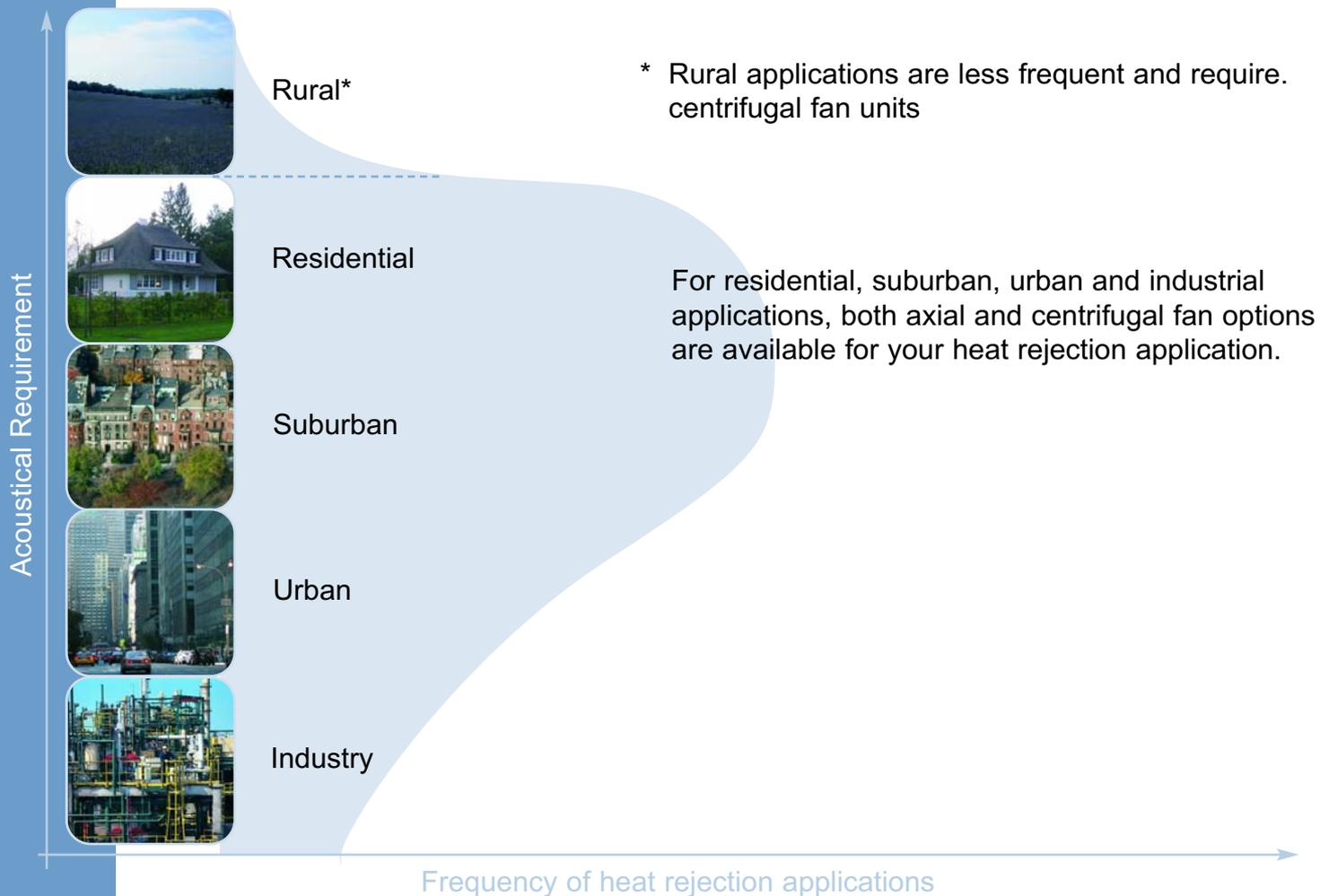


S3000D, FXV-D & CXV-D Product Lines

- FRP multi-blade aerofoil fan design
- Exceptionally wide chord and high solidity
- Allowing individual removal at standstill



"Don't let sound be the judge of your fan type"



Why Centrifugal Fans ? – Why Axial Fans ?

Axial fan products typically consume 50 % lower energy than comparable centrifugal fan products and are therefore the obvious preference for your heat rejection application. Centrifugal fan products however offer some specific advantages and are therefore often used :

- ✓ For indoor installations
- ✓ For low height requirements (VL-line)
- ✓ In installations with high External Static Pressures (e.g. ductwork)
- ✓ To avoid plume (in combination with plume abatement coils)
- ✓ For specific lay-out restrictions (e.g. single side air inlet)

Conclusion

BAC offers a wide range of centrifugal and axial fan products designed for silence providing reliable acoustical and thermal data for a wide range of environmental and operating conditions.

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