Unique Design of the **StoveCAT™** Emission Control Device for Wood Burning Stoves

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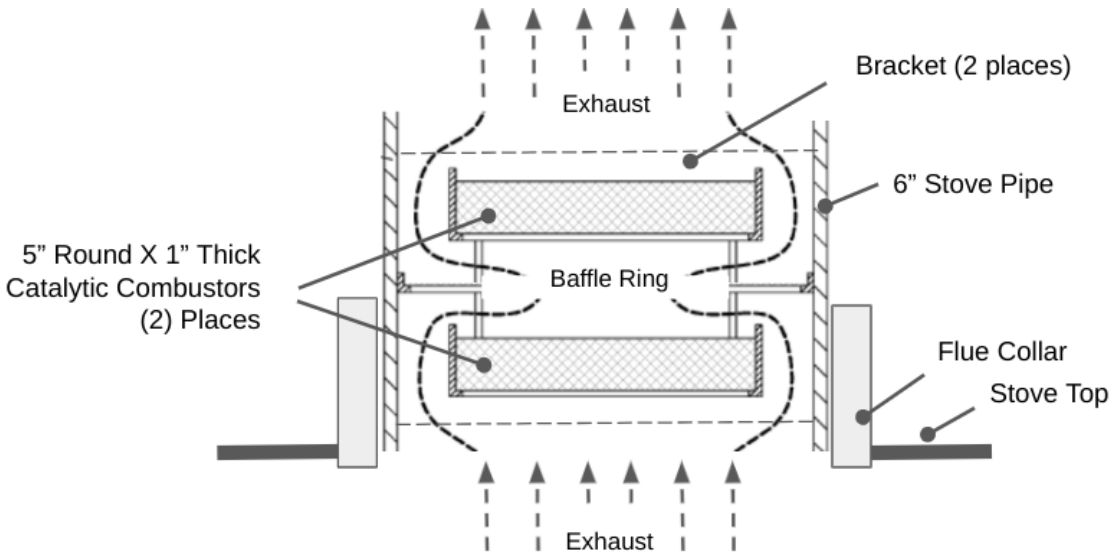
The **StoveCAT™** is a totally passive catalytic device. Unlike other catalytic devices for wood stoves, no action is required on the part of the user. During the low burn phase of a fire or the cool-down phase, lower temperatures and lower exhaust flow can lead to hydrocarbon build up on the catalytic components. Other wood stove catalytic devices in similar conditions require a bypass from the exhaust flow path during start-up (by moving or bypassing the catalytic medium), and then replaced in the exhaust flow path by the user after the wood stove reaches a higher operating temperature.

Other devices have proven to be inefficient and have no suitable mechanism to ensure that the emission reduction device is achieving efficient operation. In contrast, the **StoveCAT™** device remains stationary with no moving parts and enables the wood stove to function properly without any intervention, whether at low or high operating temperatures. The **StoveCAT™** device is totally passive, and requires neither electrical power nor a mechanical or electrical control system.



Wittus Shaker Wood Stove Catalytic System

The design arrangement of the catalytic components in the **StoveCAT™** device as shown above is such that, even if the catalytic components become temporarily totally blocked or clogged with retained organic particulates or products of incomplete combustion, the exhaust gas from the wood stove will continue to flow through the exhaust flue around the catalytic components. The **StoveCAT™** device and the constituent catalyst-coated components remain in place throughout all phases of the fuel burn cycles of the wood heater.

During periods of operation when exhaust gas passing through the exhaust flue exceeds a light off temperature of 320F, the **StoveCAT™** device converts the organic particulates and species gas pollution into water vapor and carbon dioxide. At exhaust gas temperatures below the catalyst light- off temperature, the reticulated catalyst-coated medium acts as a particulate filter to capture and retain organic particulates (e.g., soot particles) or products of incomplete combustion. When the exhaust gas temperature later exceeds the catalyst light-off temperature, the retained organic particulates or products of incomplete combustion are destroyed by the catalytic system. No maintenance required. Minimum 3 year warranty or 5000 hours of operation. Patent pending.