



## The CleanAIR ASSURE™ DOC

*Reduces HC, CO and PM*

The ASSURE™ DOC (diesel oxidation converter) for diesel engines is a flow through catalyst designed to reduce carbon monoxide (CO), hydrocarbons (HC) and diesel particulate matter (PM). The high-performance, durable oxidation catalyst is housed within a 304L stainless steel, corrosion resistant package. This unique catalyst technology is available as a standard ASSURE™ DOC unit or packaged as Industrial, Critical or Super-Critical silencer designs. Available with multiple custom configurations, the ASSURE™ DOC can be retrofitted as a direct muffler or silencer replacement.

### **Reduces:**

- HC up to 95%
- CO up to 95%
- PM by 20%

**Achieves NESHAP-CI Emissions Levels  
for Diesel Engines**

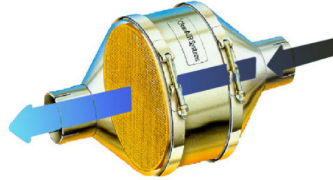
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## Customized to Client's Specifications

- Custom design and fabrication
- Product Optimization for Space Availability
- Does not require regeneration
- Available as a Muffler Replacement or Silencer Unit
- Available with V-Clamp or Welded Design
- Available as Industrial, Critical and Super-Critical Silencer Designs
- Available in Multiple Custom Inlet and Outlet Configurations

## No Health Risk

- Uses non-toxic, non-vanadium catalyst



## Muffler Replacement

The ASSURE™ DOC is packaged inside a 304L stainless steel housing and finished by bead blasting to give a highly corrosion-resistant product that will replace the existing muffler and last for years. The muffler can be clamped together to allow access to the DOC unit for inspection if desired. Slip-on, bolt flanges or other types of connectors can be designed on the unit. In general DOC muffler units are the same size or slightly larger than the original muffler. This is necessary to keep engine backpressure at a low level. Every effort is made to design the ASSURE™ DOC to fit in the smallest possible package while maintaining engine performance.

## Exhaust Temperature Requirements

Temperature of the exhaust is one important factor in the design of the ASSURE™ DOC. Fuel sulfur content also plays an important role. Depending upon these factors, the ASSURE™ DOC will reduce emissions at temperatures as low as 180°C (356°F), increasing rapidly as temperature increases. Consult your sales specialist for expected application activity and ideal operating conditions.

## How Fuel Effects Performance

For the maximum performance in PM removal efficiency, it is recommended that the ASSURE™ DOC operates in conjunction with ultra low sulfur diesel fuel (ULSD), less than 15 ppm sulfur by weight. As the fuel sulfur content increases, the PM removal efficiency decreases. High sulfur fuel, greater than 500 ppm, will not damage the catalyst.

A silencer replacement design is available for applications that require higher levels of sound attenuation or that require multiple ASSURE™ DOCs. The corrosion-resistant stainless steel shell has a removable panel allowing complete access to the converters mounted inside. The fully-insulated, double-walled body also helps keep surface temperature lower. The ASSURE™ DOC/Silencer is available in three sound reduction levels.

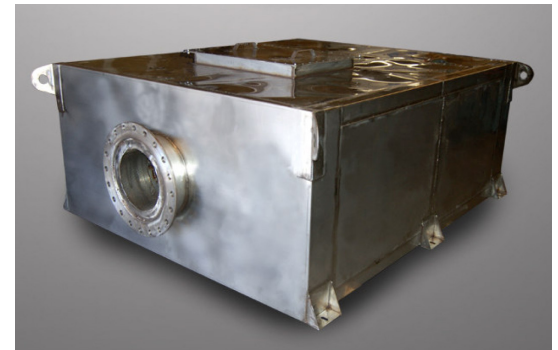
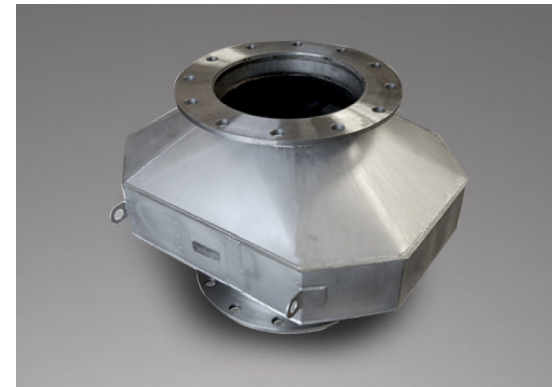
Silencer Type	Typical Attenuation
Industrial Grade	22-29 dBA
Critical Grade	27-35 dBA
Super Critical Grade	30-38 dBA

To submit an online request for pricing, go to [www.cleanairsys.com/rfp.asp](http://www.cleanairsys.com/rfp.asp)

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