

Donaldson is now offering Oxidation Catalysts for Compressed Natural Gas Engines

One approach to reducing diesel emissions is to employ engines powered with alternative fuels, such as compressed natural gas (CNG). While quite different in how they operate, alternative fuels can provide good reductions of PM and NO_x when compared to diesel.

For example, CNG engines can emit a third of the PM emissions and half to a third of the NO_x emissions compared to a diesel engine. However, they produce more carbon monoxide (CO) and hydrocarbons (HC) than diesel engines, and the hydrocarbon content includes polycyclic aromatic hydrocarbons (PAH) compounds which have carcinogenic potential.

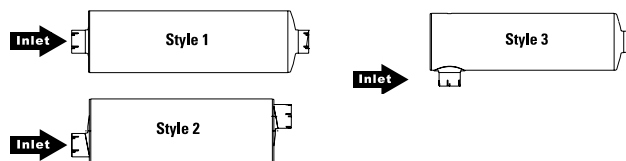
Special oxidation catalysts have been developed for CNG engines to reduce CO and HC emissions, as well as additional PM reductions. These catalysts typically use much higher precious metal loadings than a diesel oxidation catalyst (DOC) to break down methane, aldehydes and other hydrocarbon emissions. For example, a CNG catalyst may require 150-350 g/ft³, compared to 2-10 g/ft³ for a DOC.

While these platinum loadings may drive up the cost, they provide significant emissions benefits (80+% methane reductions and 90+% aldehydes reductions) and it is prudent to apply them when possible.

Donaldson is now offering EPA-certified CNG catalysts for natural gas engines. They can be installed on new engines or retrofit to existing engines.

Oxidation Catalyst Selection Chart for CNG Engines

Using the chart below, select the item number that matches your current muffler style, size, engine horsepower.



Style	Max. H.P. Rating ⁽¹⁾	Dimensions (in inches)					Item No.
		Inlet I.D.	Outlet I.D.	Body Dia.	Body Length	Overall Length	
1	400	4.0	4.0	10.0	44.5	51.0	M101373
2	400	4.0	4.0	11.0	32.0	38.0	M111252
3	250	4.0	4.0	11.0	33.0	36.0	M111114

1 - Higher horsepower engines (>450 hp) may need larger diameter converter mufflers or dual mufflers to accommodate the higher airflows and backpressure associated with those engines.



Donaldson®

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