

SMOG Master®

An Unique and Total Solution to SMOG

Made in KOREA

Eco-Driving
→



**Sung Gwang Smog Control Co.,
Ltd**

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1. Company Profile

The fossil fuel is mainly used to the devices invented for human-beings' convenience and, in this case, toxic and harmful substances are produced, leading to the tragic consequences of fatal environmental pollution to humans, animals and plants.

We, at **Sung Gwang Smog Control Co., Ltd**, initiated intensive research with the goal of minimizing environmental pollution, and adapted Tornado's theory which brings enormous power and continued research and development for many years.

In the long run, we found that **SMOG Master®** showed wonderful and dramatic effects not only to **reduce SMOG** but also to **improve fuel efficiency, good driving performance and vehicle life extension**, from all kinds of internal combustion engines (**Automobiles, Ships, Heavy Equipments, Electric Generators, etc**) using diesel as fuel.

We firmly believe and it is obvious that **SMOG Master®** will play a great role in the banishment of pollution and will dedicate to maintain the Earth clean and green.

2. Products



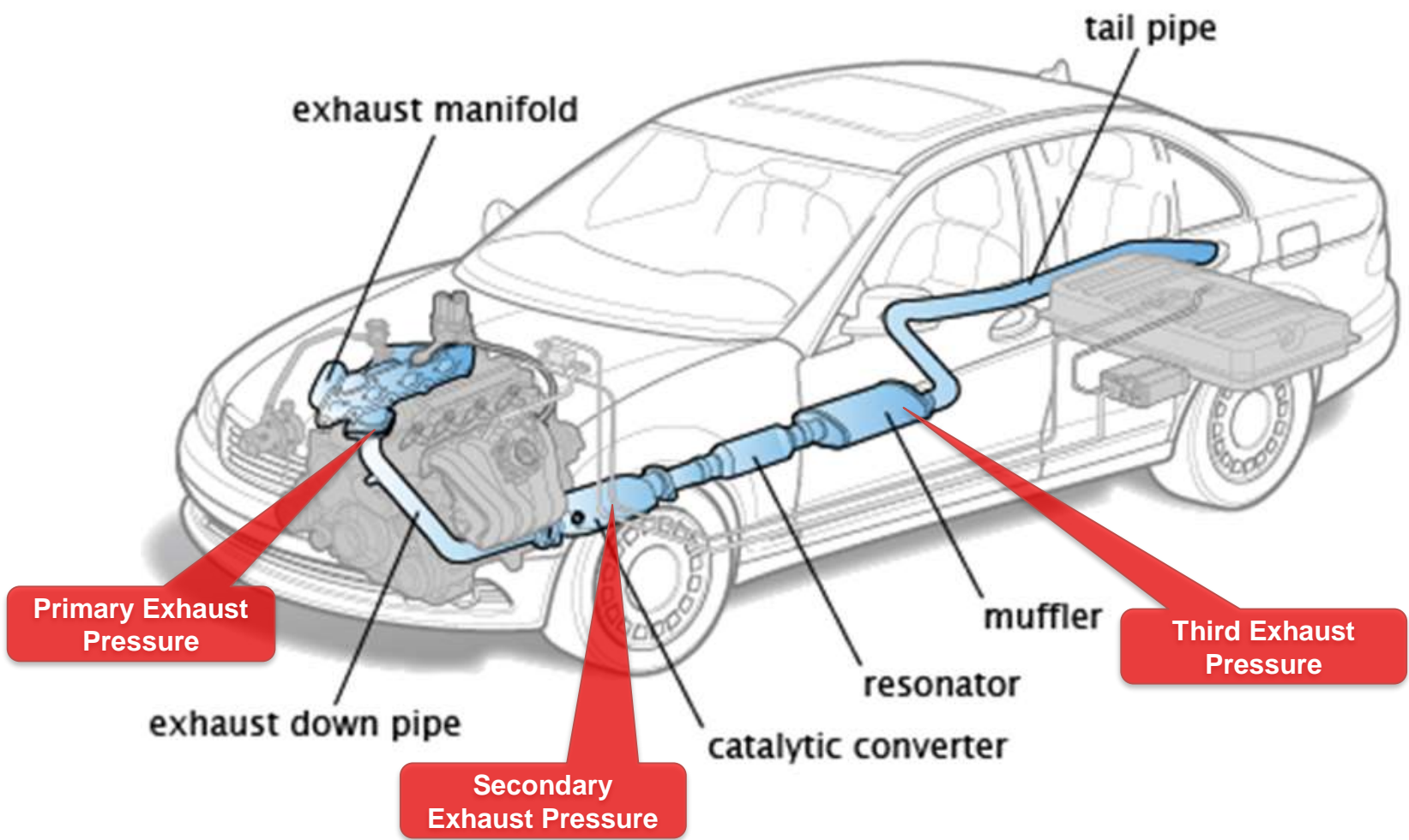
2-1. Characteristics : Easy mounting and Excellent performance



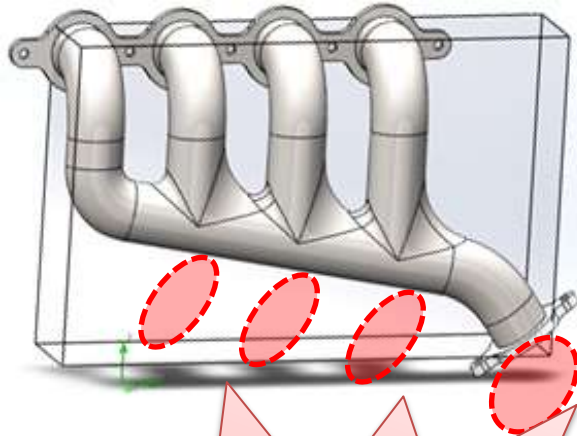
**Just fit to the
end of
exhauster
and no
maintenance
is required**



3. Understanding on Internal Combustion Engine



4. Incomplete Combustion



Incomplete explosion happens due to insufficient air volume during internal explosion

The first, second and third exhaust pressure are accumulated in the exhaust manifold



Disturbs total emission of exhausted gas during exhausting stroke in the cylinder



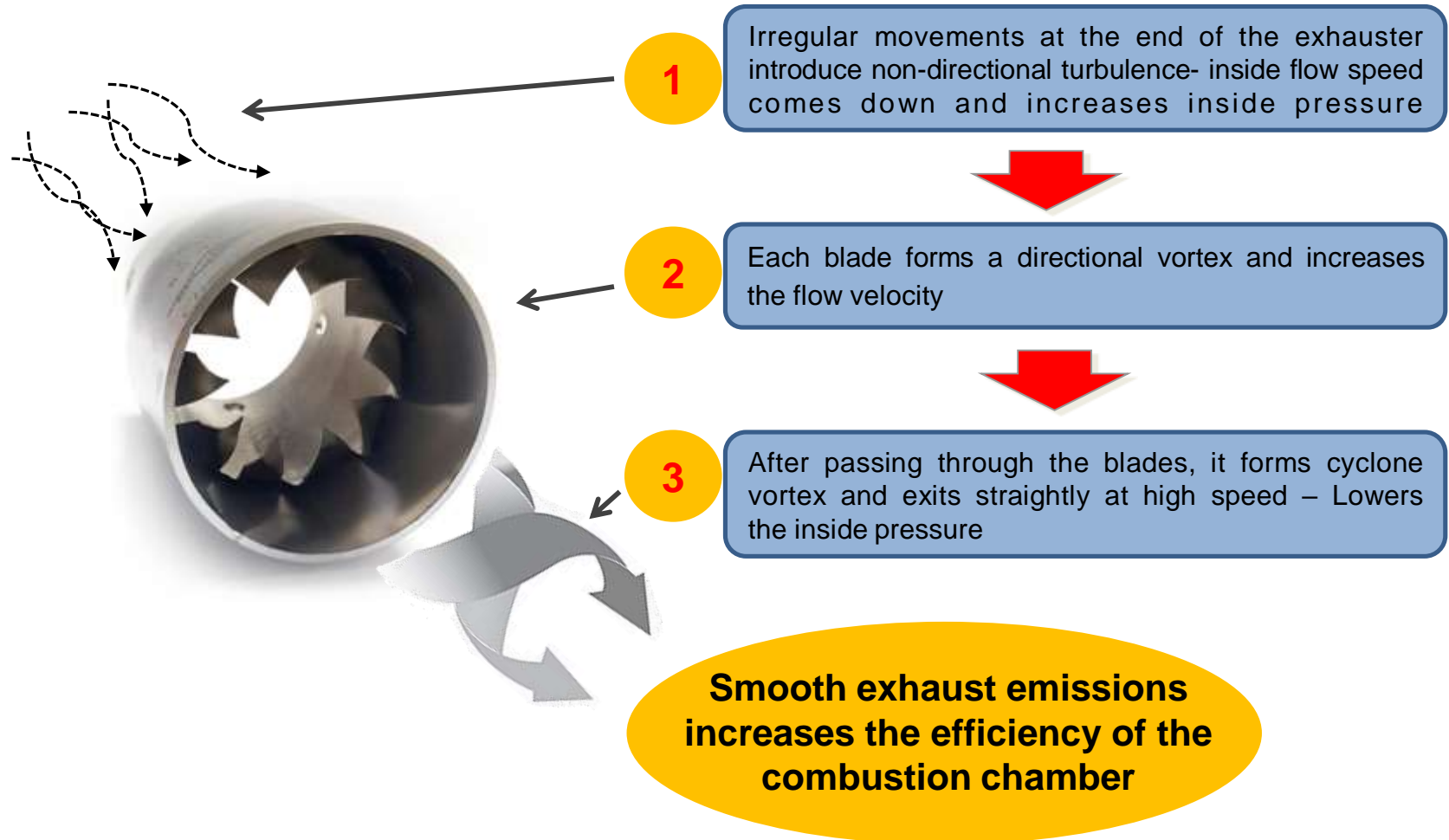
Residual gas inside the cylinder leads the insufficient in-taking of fresh air



Incomplete combustion occurs due to the lack of high quality air during explosion administration

Generally, exhausting pressure resistance reduces 20-25% of the efficiency of engine.

5. The Structure of SMOG Master®



6. The advantages of SMOG Master®



6-1. The advantages of SMOG Master®

1. SMOG is drastically reduced by one round trip, which can be verified by sight and smelling.
2. The engine power is surely increased and noise & trembling are gone away.
3. Prompt starting is possible and the engine knocking is disappeared.
4. Enables the elastic driving, which definitely improves the fuel efficiency.
5. Driving force is consistently maintained even on the steep slope.
6. Power-on the air conditioner has no influence on powerful driving and lower rpm enables pleasant driving
7. Smooth acceleration minimizes the driver's fatigue during long distance driving.

7. Performance test result (by A-ju Automotive University)

Reference : Flow Analysis of **SMOG Master®** (Former Model-IM-240) for Diesel Engine

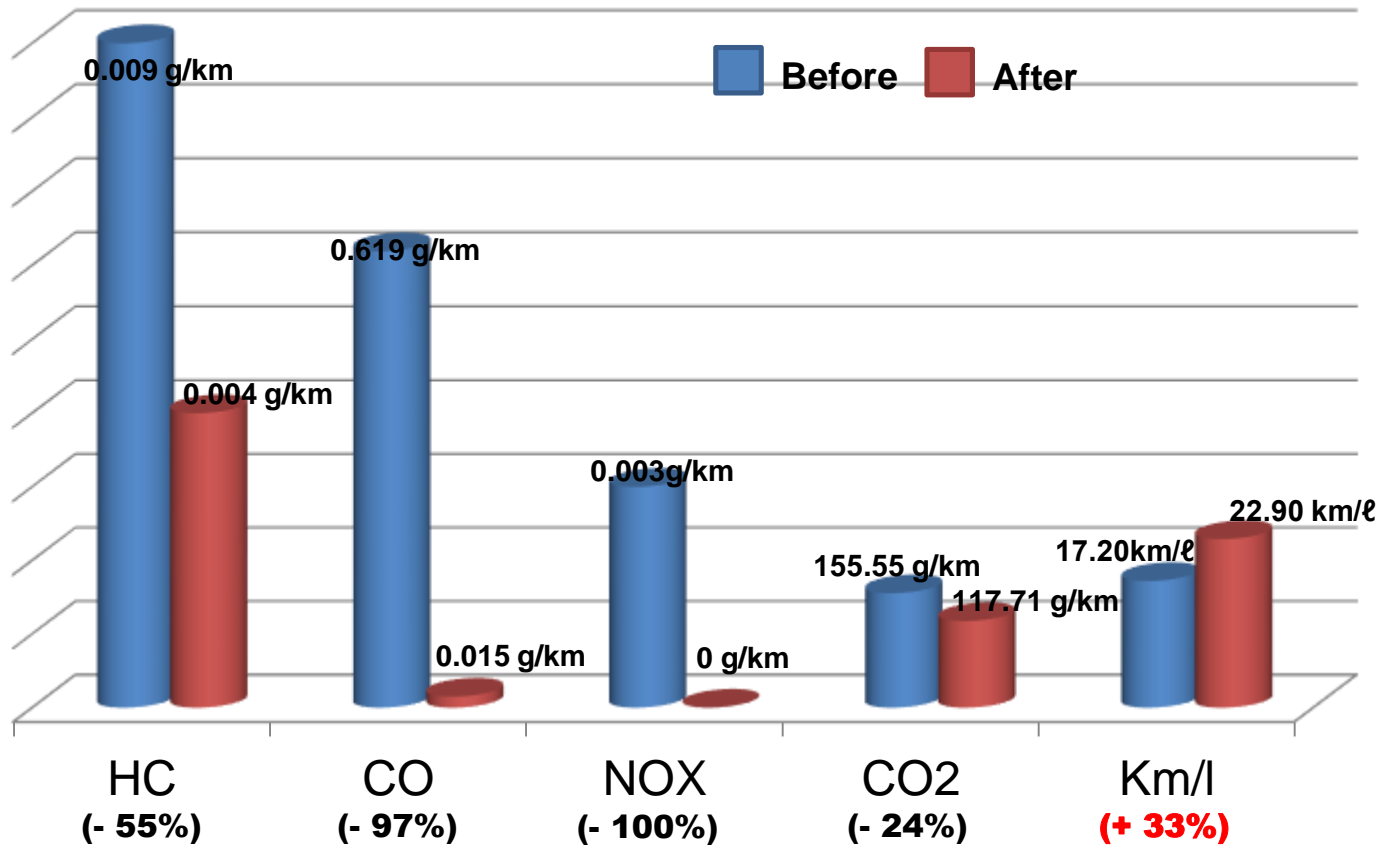
SMOG Master® Hot mode test result (Indoor equipment test)			
Division	Before	After	+ / -
HC(Unburned Hydrocarbon)	0.009 g/km	0.004 g/km	- 55%
CO(Carbon Monoxide)	0.619 g/km	0.015 g/km	- 97%
NOX(Nitrogen Oxide)	0.003g/km	0 g/km	Almost Disappeared
Carbon Dioxide (CO2)	155.55 g/km	117.71 g/km	- 24%
Mileage per litter	17.20km/ℓ	22.90 km/ℓ	+ 33%

Comment on Integrated Analysis

When SMOG Master® was attached to the end of the exhauster, the effect of reducing exhausted gas such as Nitrogen Oxide was significantly high, and the amount of carbon dioxide was also drastically reduced. Also, showed a good effect on fuel efficiency.

7-1. Performance test result (by A-ju Automotive University)

Reference: : Flow Analysis of **SMOG Master®** (Former Model-IM-240) for Diesel Engine



8. Extended Applications

Vehicles/Trucks



Vessels



Electric Generators



8. Extended Applications

Heavy Equipments



9. Intellectual Property Rights

(Invention Patent, Utility Model Patent, Design and so on)

Classification	Application No.	Designation	Date	Institution	Rmks.
Patent	10-1942753	Vortex generating device for Automobile's Internal Combustion Engine.	2019.01.22	Patent Office	E
Patent	10-2019-0030856	Smog reduction device for ship's internal combustion engine.	2019.03.19	Patent Office	A
Patent	10-2019-0062170	Smog Reduction device for Vehicles of internal combustion engine.	2019.05.27	Patent Office	A
PCT Patent	PCT/KR2019/0030856	Vortex device for internal combustion engine.	2019.06.17	PCT	A
PCT Patent	PCT/KR2019/0062170	Smog Reduction device for Vehicles of internal combustion engine.	2019.05.30	PCT	A
Design	30-0998807	Mounting bracket for internal combustion engine exhaust system.	2019.03.14	Patent Office	E
Design	30-0998814	Mounting bracket for internal combustion engine exhaust system.	2019.03.14	Patent Office	E
Design	30-0998815	Mounting bracket for internal combustion engine exhaust system.	2019.03.14	Patent Office	E

* E: Enrollment / A: Applied

9. Intellectual Property Rights

