





### **Statistics**



driving a gasoline car for 1

Kilometer emits about **200** grams of CO2.



Based on "Public Health Reports" a

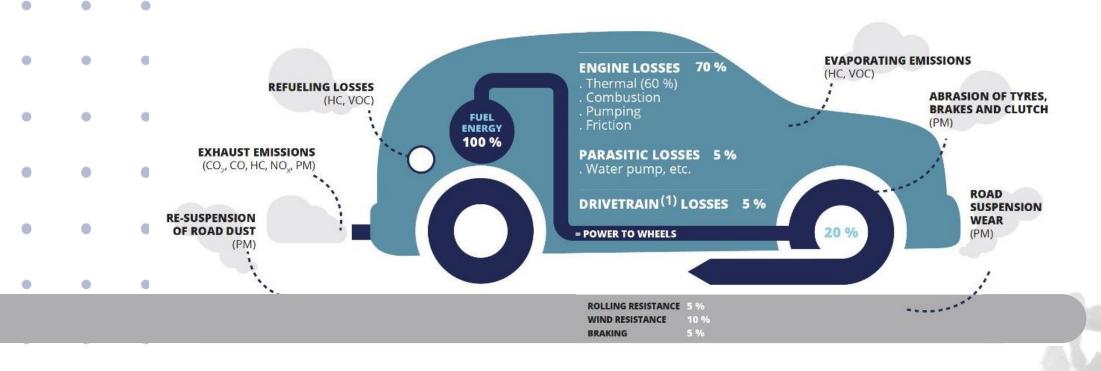
Dog, Died when Directly inhaling 20

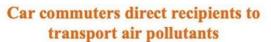
grams of carbon dioxide.

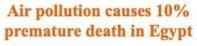




#### **Statistics**

















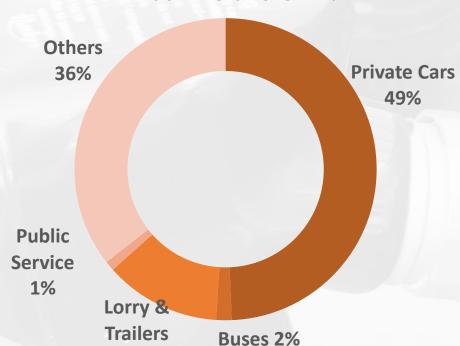


#### **Statistics**

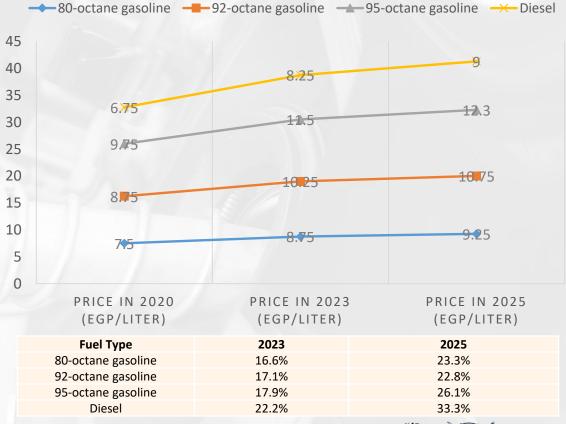
Egyptian daily Consumption of Diesel is 45 Million Liters / Day, the Gasoline is about 26 Million Liters / Day

## **Vehicles in Egypt**

10.9 Millions - CAGR 1.2%



#### **FUEL PRICE INCREASE IN EGYPT**









### Solution



Reduce CO2 emissions by up to 80%



Reduce fuel consumption by 8 to 12%



Increase engine
lifetime and
Performance



From **8** to **10** years lifetime without maintenance





The device is installed in just 20 minutes



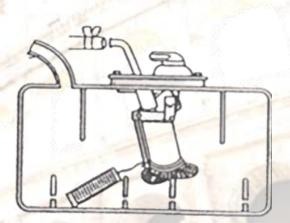
#### **SUPERTECH®**



The Brand registered in OMPI (Organisation Mondiale de la Propriété Intellectuelle), ITALY Registration Numb: N° 837 347 - SUPERTECH®



SUBMERSED DEVICE FOR REDUCING THE POLLUTING EMISSIONS AND SAVING ENERGY IN HYDROCARBON "HC" COMBUSTION VEHICLES/MACHINERY





#### **Reduction Process**

#### Test Protocol in the EUROPEAN NORMATIVE (Standard) CE 93/116

## **Less Gas Emission = Less Fuel Consumption**

- 7. CALCULATION OF FUEL CONSUMPTIONS
- 7.1. The fuel consumptions are calculated from the emissions of hydrocarbons, carbon monoxide and carbon dioxide calculated in accordance with paragraph 6.
- 7.2. The fuel consumptions expressed in litres per 100 km are calculated using the following formulae:
  - (a) for petrol-engined vehicles:

$$FC = \frac{0,1154}{D} [(0,866 \cdot HC) + (0,429 \cdot CO) + (0,273 \cdot CO_2)]$$

(b) for diesel-engined vehicles:

$$FC = \frac{0,1155}{D} [(0,866 \cdot HC) + (0,429 \cdot CO) + (0,273 \cdot CO_2)]$$

where:

FC = fuel consumption in litres per 100 km;

HC = measured emission of hydrocarbon in g/km;

CO = measured emission of carbon monoxide in g/km;

CO<sub>2</sub> = measured emission of carbon dioxide in g/km;

D = density of the test fuel.







#### **Reduction Process**

## **Less Gas Emission = Less Fuel Consumption**

What are Gas emissions composed of?	CO, HC ppm, NOx, CO2
What is HC	HC = Fuel which goes into the combustion chamber and comes out exactly as it went in (therefore unburnt)
What does opacimeter or gas analyzer measure?	HC = UNCOMBUSTED HYDROCARBONS







#### **Reduction Prove**



HC passed from 251.000 to 30.000 = reduction of 88%

CO passed from 7.320 to 1.120 = reduction of 84%







#### **Reduction Prove**



جامعة الأزهــر

Fuel reduction	HC Reduction	
%	%	
5.43	30.00	
2.71	20.00	
2.54	26.58	

Unit of Mechanical Works and consultation Faculty of Engineering Al-Azhar University Since 1992



الوحدة الخاصة للأعمال والإستشارات الميكانيكية كلية الهندسة جامعة الأزهر تأسست عام 1992 م

The instruments used during the tests were calibrated and its accuracies as

Measured parameter	Absolute error	Technique
Inlet air flow rate	0.357 m3/h	Orifice plate with inclined manometer
Diesel fuel flow rate	8.27 x10-3 kg/h	Constant volume versus time
Engine speed	0.25 rev/s	Magnetic pickup
Engine torque	0.6 Nm	Load Balance
NO emission	2 ppm	IR
CO emission	0.002%	IR
CO2	0.02%	IR
O2 concentration	0.025%	Paramagnetic
HC emission	3 ppm	FID

indicated in the following table:

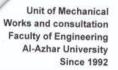
The tests were carried out on low, medium, and high engine loads and constant engine speed of  $1500~\mathrm{rpm}$ .

Dies	el withou	ut Magnetic	Filter				
Speed rps	Load (N)	Fuel Time Sec. per 50 CC	CO2%	CO%	NO ppm	02 %	HC ppm
25	20	295.5	3.8	0.03	210	16.1	78
25	50	212.22	5	0.04	470	14.2	84
25	100	136.46	8	0.03	1360	10	100

Diesel I	Engine Te	st With Mag	netic Filter	Super Te	ch		
		Fuel Time Sec.					
Speed rps	Load (N)	per 50 CC	CO2%	CO %	NO ppm	02 %	HC ppm
25	20	311.55	3,45	0.03	250	16.2	60
25	50	217.97	4.7	0.025	485	14.2	70
25	100	139.92	7.65	0.03	1380	10.2	79

Abdel aal

عصلا مسالم - تقاطع السكة البيضاء - أمام دار المركبات - العباسية - القاهرة - ت / 24820829





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As indicated from the above results the effect of using super tech has been appears mainly in two parameters which are the fuel consumption and the emitted total hydrocarbons. The percentage reduction was calculated relative to the original values, and it gives the following values with the low, medium, and high engine loads:

Fuel	HC		
reduction	Reduction		
%	%		
5.43	30.00		
2.71	20.00		
2.54	26.58		

The variation on the other exhaust product components are considered negligible or still almost constant.

#### Conclusion:

The use of super tech results in considerable fuel and hydrocarbons reduction, this reduction is maximum at low load while these reductions are less in medium and high loads.





#### **More References**









**Centronor** 

**DAMASCUS UNIVERSITY** 

**DIIT** 

**Latvia University** 









**SCANIA** 

**HELWAN UNIVERSITY** 

**UNAM** 

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#### **Certificates**





No 42/2004

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Nos 837319-837850



Organisation Mondiale de la Propriété Intellectuelle World Intellectual Property Organization Organización Mundial de la Propiedad Intelectual

#### **SUPER TECH**

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(511) NCL(8)

- 7 Économiseurs de carburant.
- 11 Economiseurs de combustibles.
- 7 Motor fuel economizers.
- 11 Fuel economizers.
- 7 Ahorradores de carburante.
- 11 Ahorradores de combustible.
- (822) IT, 12.02.2001, 836460.
- (831) BX, CH, CN, CZ, DE, EG, ES, FR, HU, PL, PT, RO, RU.
- (832) AU, TR, US.
- (527) US.
- (851) BX, CZ, DE, ES, FR, HU, PL, PT. Liste limitée à la classe 11. / List limited to class 11. Lista limitada a la clase 11.
- (270) français / French / francés
- **(580)** 23.12.2004



This is to Certify that Quality Management System of

EAST-WEST SAS DI MARILISE LINERA & C

VIA ROCCAVOLI 10, 90049 TERRASINI (PA), ITALY

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope:

PRODUZIONE E DISTRIBUZIONE DI OTTIMIZZATORI DI COMBUSTIONE PER VEICOLI A
TRAZIONE IDROCARBURI.
PRODUCTION AND DISTRIBUTION OF COMBUSTION OPTIMIZERS FOR HYDROCARBONSDRIVEN VEHICLES.

IAF CODE: 29,18

Certificate No : 1023QAE01 Initial Registration Date : 17/02/2023

Initial Registration Date : 17/02/2023 Issuance Date
Date of Expiry : 16/02/2026

1st Surv. Due : 17/01/2024 2nd Surv. Due : 17/01/2025











: 17/02/2023

D-ZM-20817-01-00

Absolute Quality Certification Pvt. Ltd.

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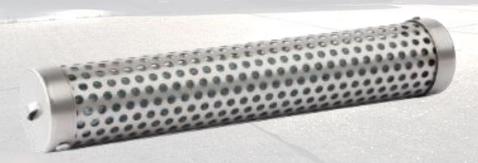


## Models



Model	Length	Fuel Tank Capacity	Diameter	Weight
Mod. A	80mm	Up to 40 litres	Ø 30mm	90g
Mod. B	120mm	Up to 70 litres	Ø 30mm	120g
Mod. C	160mm	Up to 150 litres	Ø 30mm	164g
Mod. D	240mm	Up to 350 litres	Ø 30mm	210g
Mod. E	320mm	Up to 800 litres	Ø 30mm	312g





# **Thank You**



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