

Comaxima Eco-Green Technology Co., Ltd.

COMAXIMA

COMAXIMA Group

Your Best Partner in HVAC...

**No. 31-1 Lane 133, Ganyuan St., Shulin Dist.
New Taipei City, Taiwan**

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<http://www.comaxima.com.tw>

Outline

- ▶ **Company Profile**
- ▶ **Company's core values**
- ▶ **ECH core energy-saving technology**
- ▶ **ECH Products Introduction**
- ▶ **ECH Products Case Studies**
- ▶ **Conclusion**

Company Profile

Comaxima was established in 1980, with 30 years of experiences in manufacturing industry. Products area from HVAC manufacturing equipment to the machines which process the cost saving fuel.

We value our customers' feedback and keep on improving our techniques to meet their requirements, so we can provide high quality manufacturing machines and equipment .

Recently, **Comaxima** devotes itself to develop eco-friendly & energy-saving products. We have successfully developed emulsified and homogenized Nano fuel processing machines ,Nano Diesel processing machines, gas saving equipment, etc. We hope our customers and the society can get benefits from our eco-friendly machines.

1980

Founded



1985

Refrigeration and Air Conditioning , Heat exchange equipment

2010

Energy Saving and Carbon reduction



Honors and Awards

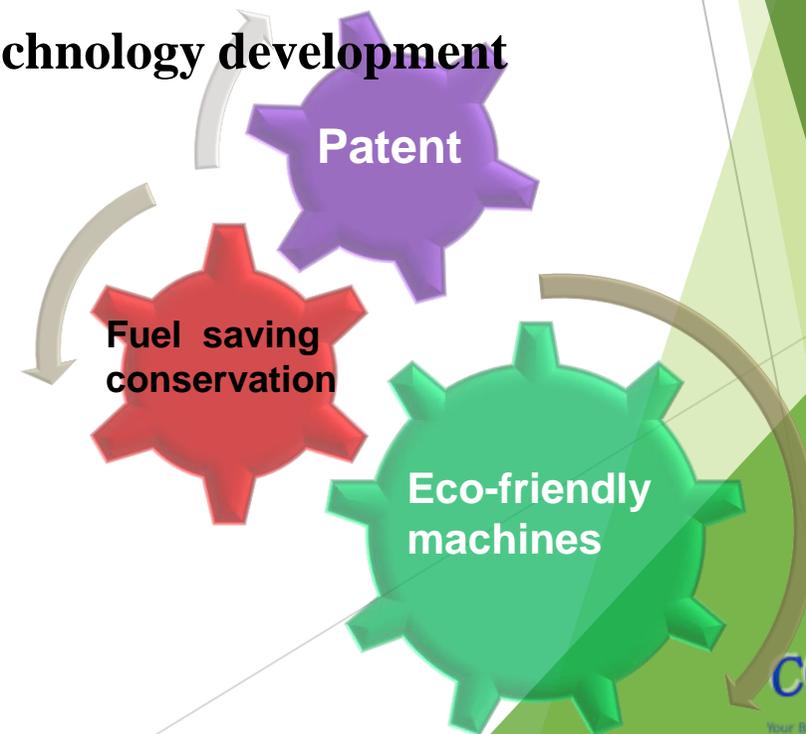
- 2007 Golden Torch Award- Top 10 Potential Enterprises
- 2011 Taiwan Excellent Product Award from RCMA
- 2011 First Brand Award for eco-industries in Taiwan
- 2012 Honored with Outstanding Enterprise for Sustainable Development from New Taipei City Government
- 2014 ECO-Green product - Energy Saving & Reducing Carbon Extend to Eastern European Market
- 2015 Energy Saving & Reducing Carbon Seminar, Taiwan.



Comaxima's Values

On Cost Saving fuel process machines

1. Developing cutting-edge technologies and winning global patents.
2. Developing chemical additives-free machines for environmental sustainability.
3. To develop eco-friendly products is our technology development policy.



ECH–Core Technology Overview

Tradition methods

■ Mechanical:

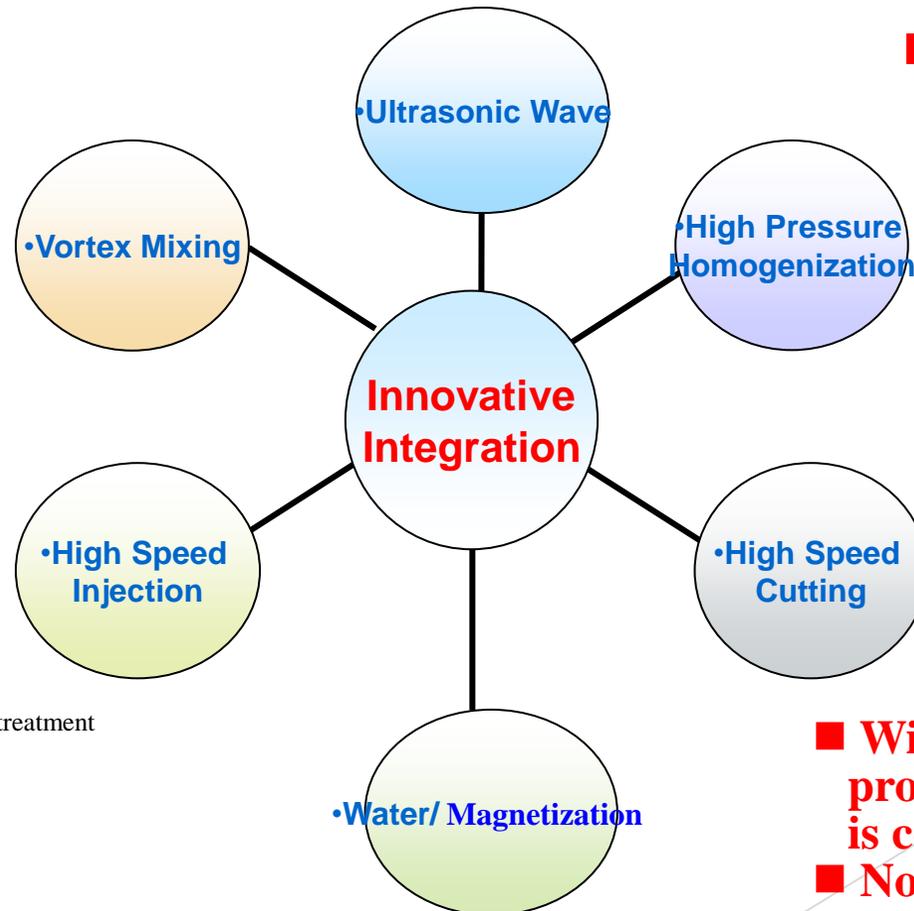
- High speed cutting
- Ultrasonic wave
- High pressure homogenization
- High speed injection
- Vortex mixing

■ Chemical :

- Additive emulsifier

■ Electromagnetism : Magnetization treatment

Comaxima's innovatively integrates



■ Various mechanical :

- Magnetization treatment
- Earthquake frequency
- High speed cutting
- Ultrasonic wave
- High pressure homogenization
- High speed injection
- Vortex Mixing

■ With improved mechanical processing, fuel & water is completely blended.

■ No any chemical material !

Patent、CE、ISO Certificates

CE VERIFICATION
of conformity with European LVD Directive

Document holder: : KLIMA TECHNOLOGY INC.
NO.19-3, Alley236, Lane222, San-Shu Rd, San-Xia Dist, New Taipei City, Taiwan

Type of equipment: : Emulsion Machine

Type designation: : ECH-A300, ECH-A500, ECH-A1000, ECH-B100, ECH-B300, ECH-B500, ECH-B1000, ECH-B2000, ECH-A2000

Report No. : ST2K14035

A sample of the product has been assessed with respect to CE-marking according to the Low Voltage Directive (2014/35/EU) and found to comply with the essential requirements of the Directive.

Standard(s) used for showing compliance with essential requirements of the directive:

LVD Standard(s):
1) EN 60204-1 : 2006+A1 : 2009

Safety of machinery-
Electrical equipment of machines-
Part 1: General requirements

Note: 1. National deviations were not evaluated.
2. This verification shall be accompanied with test report.
3. This verification shall not be reproduced without the written approval of the laboratory.

The referred test report(s) show that the product fulfils the requirement in the EC Low Voltage Directive for CE marking. On this basis, together with the manufacturer's own documented production control, the manufacturer (or his European authorized representative) can in his EC Declaration of Conformity verify with the EC Low Voltage Directive.

Approved by: *Ryan Tang*
Ryan Tang
STL Certification and Testing Services
February 6, 2015




Certificate of Registration

Certificate No. 141210008896
This is to Certify that the Management System of the

KLIMA TECHNOLOGY INC. (COMAXIMA Groups)
No. 19-3, Alley 236, Lane 222, San-Shu Rd, San-Xia Dist, New Taipei City, Taiwan (R.O.C.)

Has been assessed and found to be in accordance with the requirements of standard detailed below

ISO 9001:2008

This Certificate is valid for the following scope
"Design and Manufacture of Whole-Plant Equipment."

Initial Registration Date	10 th Dec 2014	Issue Date	10 th Dec 2014
1 st Surveillance on or before	10 th Nov 2015	Valid Until	09 th Dec 2017
2 nd Surveillance on or before	10 th Nov 2016		

To check validity of the certificate please visit www.stlcertification.com or call at given numbers





Managing Director
TMV Certification Pvt Ltd.
Accredited by Joint Accreditation System of Australia and New Zealand

中華民國專利證書
新案第 384063 號

新案名稱：乳化裝置

專利權人：蘇金華

創作人：蘇金華

專利權期間：自 2010 年 7 月 11 日至 2019 年 12 月 9 日止

上開新案係依專利法規定通過形式審查取得專利權行使專利權依法應提示新案專利技術報告進行警告

經濟部智慧財產局
局長 王美花

中華民國 100 年 7 月 11 日

實用新型專利證書

發明名稱：乳化裝置

發明人：蘇金華

申請日：2010 年 07 月 09 日

公告日：2010 年 07 月 09 日

公告號：公告 100 年 07 月 09 日

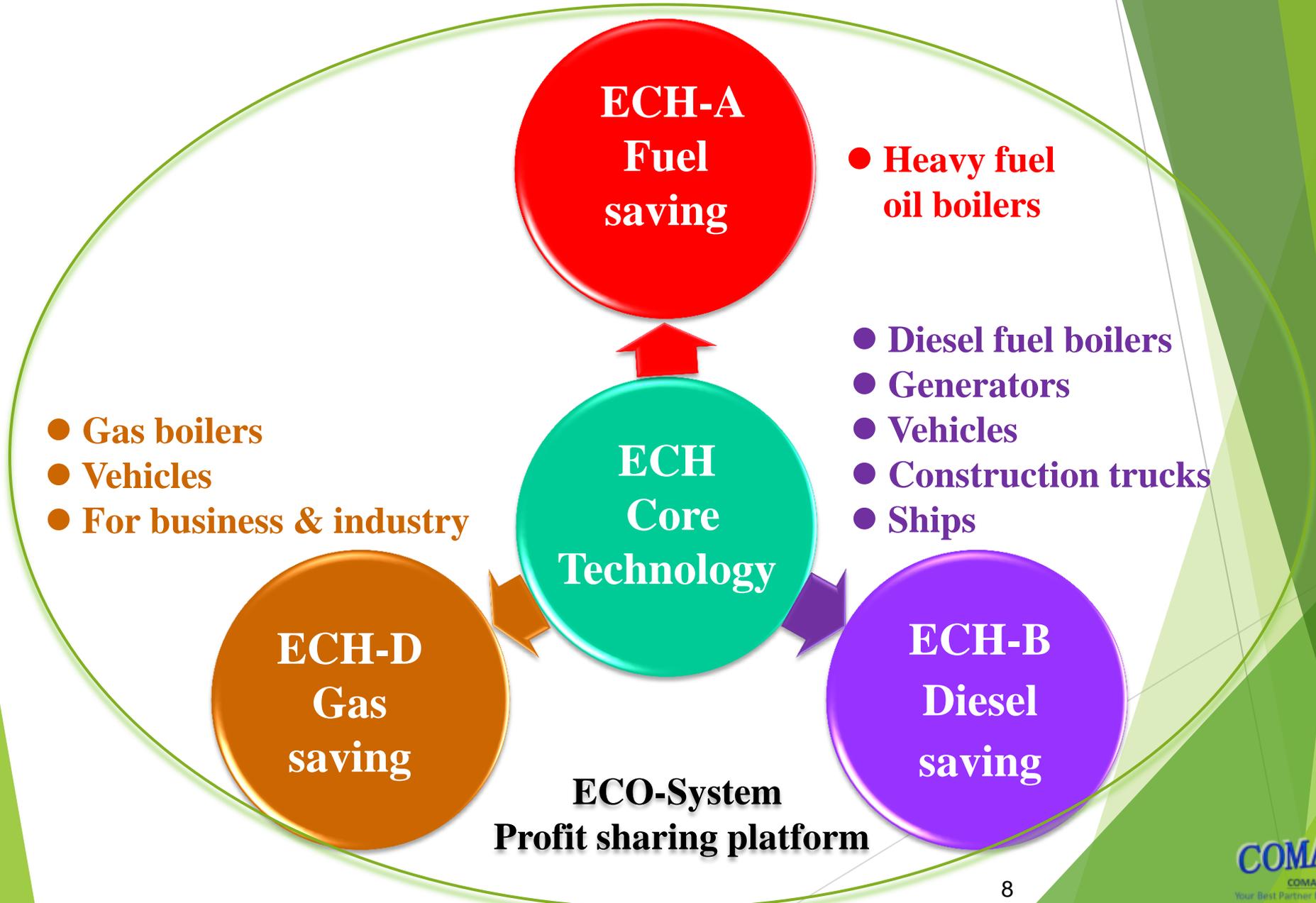
專利權期限：自 2010 年 07 月 11 日至 2019 年 12 月 09 日止

蘇金華發明專利技術報告

局長 王美花

Safety Testing Laboratory Co., Ltd
No.2-4, Ln. 31, Zhongxiao St., Zhonghe Dist., New Taipei City 235, Taiwan (R.O.C.)

Main Product Structure



● ECH-A Nano fuel processing equipment

For Heavy oil Saving 10%~25%

Fuel saving solutions



- 1. For large-scale energy and electricity- power plant generators
- 2. For fuel-intensive industries-industrial heavy fuel oil boilers
- 3. For transportation- marine generators, internal-combustion engine

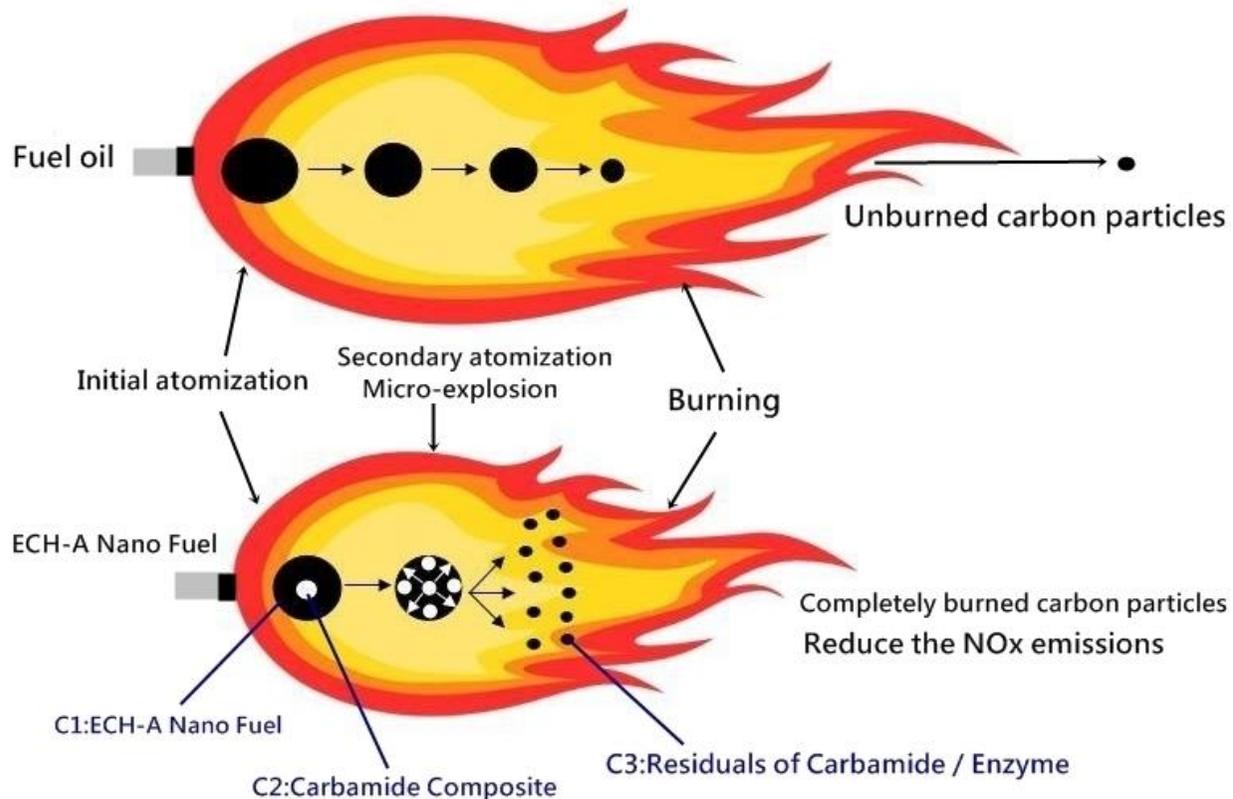


Machine size (LxWxH)2Mx1.5Mx1.8M
Weight : 1000KGS

ECH-A main theory : Water Gas shift reaction

Some Eco-additives to add on (options), no secondary pollution

When adding 10%-25% water into fuel, the fuel-saving equipment mixes water and fuel to become small water-in-oil molecules (1st nebulization). As these molecules sent into boiler for burning the water turns to vapor and the molecules blow up, and this (2nd) nebulization produces micro-molecules fuel. These micro molecules make fuel burn completely and improve fuel efficiency, as well as reduce air pollution and boiler erosion. (Boiling point of water is 100°C, but boiling point of fuel oil is 260°C.)



ECH-A fuel Advantages:

Energy saving machine system

→solve the problems of oil overconsumption, black smoke emission, equipment maintenance, etc.

1.Reduce the use amount of fuel oil by 10%-25%.

CPC Corporation No. 6 heavy oil as the basis

→ effectively reduce the cost of fuel oil by 5%-15%. (estimation)

2.Reduce the boiler's maintenance cost and increase its service life.

(for example: the boiler's cleaning only 1-2 times a year.)

3.Reduce air pollution tax and waste gas emission by over 20%.

4.Reduce black smoke emission due to incomplete combustion.

5.Reduce waste gas and aerosol, CO₂, nitrogen oxides, CO.

6.Reduce the amount of sulfuric acid and effectively eliminate vanadium-containing compounds and coking and ash deposition in boilers and furnaces.

The business plan of ECH-A

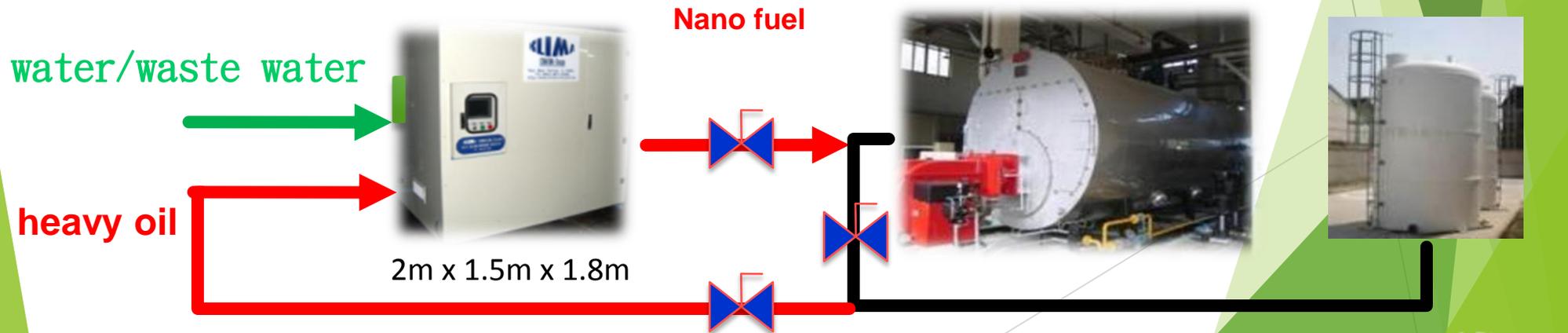
Client: no need to change the boiler

Comaxima: provide related devices(add-on) and plan

Effect: make sure that the energy saving ratio of the boiler reaches 10% and higher

Usage: save certain amount of heavy oil by adding appropriate proportion of water. Energy-saving **Nano Fuel** processed by this equipment, its combustion showing the the equal efficiency in the broiler.

ECH-A Nano Fuel Processing Equipment



The benefit plan of ECH-A300

➤ **Base :** If a boiler uses 300 kiloliter of heavy oil per month
(heavy oil NTD 20/liter; fuel oil saved by 10%)

A.Economic benefit : save the cost of heavy oil NTD 7.2 million every year

$$300 \text{ kiloliter} \times 1000 \times 10\% \times \text{NTD } 20 \times 12 \text{ months} = \text{NTD } 7,200,000$$

B.Ecological benefit:

1. reduce the emission of CO₂ by 540 million liter every year

$$(300 \times 1000 \times 0.1 \times 12 \times 1500) / 10000 = 54000$$

2. reduce the emission of SO₂ by 2.27 million liter every year

$$(300 \times 1000 \times 0.1 \times 12 \times 6.3) / 10000 = 227$$

3. reduce the emission of NO_x by 684000 liter every year

$$(300 \times 1000 \times 0.1 \times 12 \times 1.9) / 10000 = 68.4$$

C.Other benefits: reduce the cost of the boiler cleanup, and reduce carbon deposition to increase boiler 's efficiency. Besides, the industrial waste water of the plant can also be used to reduce the discharge pollution.

According to the statistics, burning 1 liter of heavy oil emits

→ 1500 liter of CO₂ (about 2.7 kilogram)

→ 6.3 liter of SO₂

→ 1.9 liter of NO_x

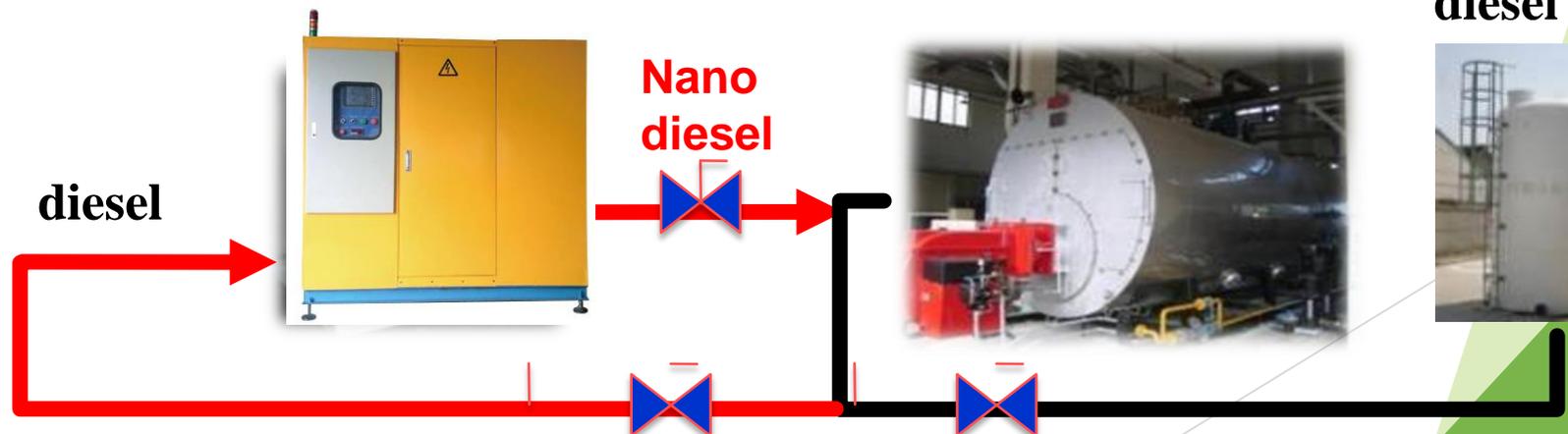
According to US AP-45, every kiloliter of fuel oil used by the boiler will produce:
particulate pollutant 1.25 kilograms
sulfide 9.6 kg / CO 0.6 kg / nitride 6.6kg/ CO₂ 2.9 metric tons



● ECH-B Diesel oil (Still developing) Fuel saving solution (No water added)

1. Large scale power energy (generator in power plant)
2. Companies with large oil consumption (diesel boiler for industrial use)
3. Energy for transportation industry (boat generator, internal combustion engine and heavy duty vehicle)

ECH-B Nano-Diesel Processing Equipment



Machine size (LxWxH) 1.5Mx1.3Mx1.8M
Weight : 800KGS

Original diesel tank



ECH-B Core technology (Still developing)

- Oil saving machine uses physical nanotechnology to micronize diesel molecular clusters.
- After micronization, for the same amount of oil, more diesel molecules can contact more oxygen in the air.
- With more diesel molecules oxidized simultaneously, the burning will be more effective.
- With more effective burning, less diesel oil can achieve the same output power, achieving the goal of fuel saving.
- The more effective burning will reduce the produce of waste gas due to complete combustion, leading to the eco-friendly effect.

ECH-A cases

Client	Business	Location	No. of furnaces	Temperature of the furnace	Fuel oil	Monthly consumption	Water addition	Performance	Date
Dakang	dyeing and finishing	Zhanghua	2	250 degree	heavy oil	100T	20%	15%	2010
Rihuan	environmental protection	Guanyin	1	1350 degree	heavy oil	50T	15%	12%	2012



Conclusion

- Our company's core is to develop the ECH energy-saving technology for heavy oil, diesel oil, gas and other fuel saving devices.
- Through our lab. test and the users' tests of the industries :
 - the use of heavy oil can save more than 10%
 - the use of diesel fuel savings more than 15%
- By ECH 、 ECO-System, we can share profits with customers and industries for sustainable development. Our goal is to provide the best Green saving solution to our society.



**New technology
leads energy revolution !**