

Furnace / Boiler Fuel and Emission Solutions

Rentar Fuel Catalyst



Reduces Fuel Consumption and Reduces Harmful Emissions

Verified Effective by EPA Recognized Laboratories * Sole Source Technology with 33 Issued Patents

The Mission Statement

RENTAR[®]
Fuel Catalyst



Globally, there are more than one half billion diesel engines and oil-fired furnaces burning billions of gallons of fuel per year and emitting millions of tons of greenhouse gases into the atmosphere.

The Rentar Fuel Catalyst is independently proven to reduce fuel consumption and greenhouse gas emissions by EPA and CARB recognized laboratories.

It is the “Mission” of Rentar Environmental Solutions, Inc. to install Rentar Fuel Catalysts on the world's diesel equipment.

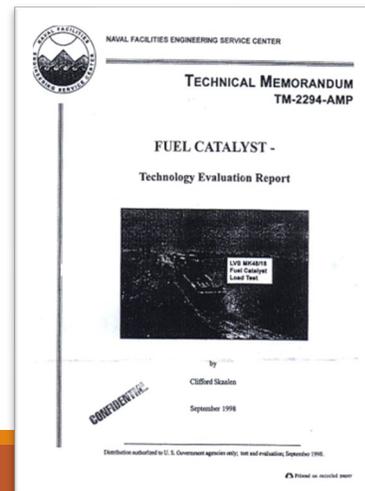
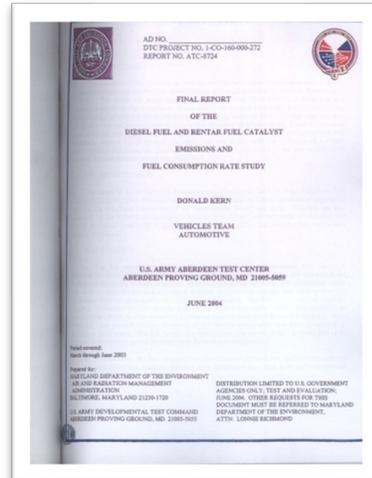
Rentar Fuel Catalyst Independently Verified to:



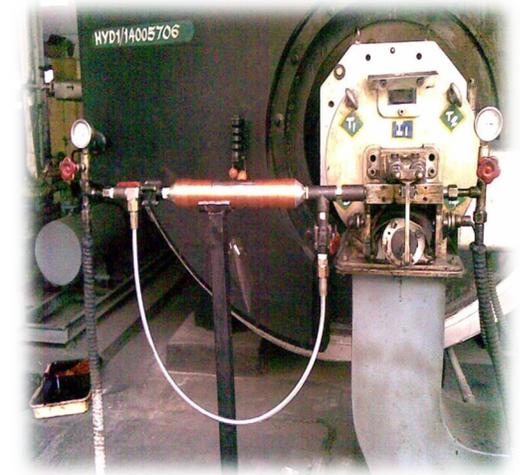
- Reduce Oil Fired Furnace Fuel Consumption 7.0% To 30.0%
- Reduce Greenhouse Gases (NOx, CO and CO2) Up To 19.2%
- Reduce Particulate Matter (PM) Up To 58.2%
- Reduce Black Smoke (Opacity) Up To 44.8%
- Reduce Organic And Elemental Carbon Up To 35.0%
- Reduce Volatile Organics up to 63.0%

Results vary based on the applications, type of engine and type of fuel utilized

Rentar Is Independently Verified By:



- Southwest Research Institute
- EPA & CARB Recognized Laboratories
- Aberdeen Proving Grounds
- Olson Ecological Laboratories
- Virginia Tech University
- SGS,SA



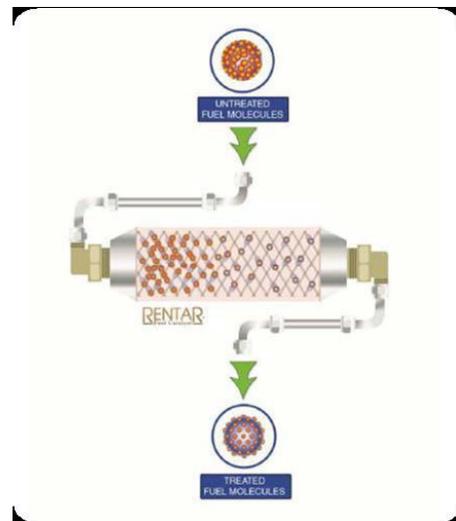
Benefits of the Rentar Fuel Catalyst

- **Reduces Fuel Consumption**
- **Increases Performance Per Gallon / Liter**
- **Reduces Greenhouse Gas Emission**
- **Extends Furnace Life**
- **Reduces Furnace Maintenance**
- **3 Year Warranty**
- **Easy to Install**
- **Pays for Itself in Fuel Savings in 3 to 12 Months**



How does it work?

RENTAR[®]
Fuel Catalyst



The Company's core product is the *Rentar® Fuel Catalyst* ("RFC"), which aggressively conditions fuel through a series of complementary processes resulting in a more complete and cleaner burn at combustion. The Rentar technology works with any fossil fuel combustion process.

Fundamentally rooted in "cracking fossil fuels", a method of altering organic compounds with large molecules, making them more useful compounds with smaller molecules. The RFC enables the clustered molecules in fuel to temporarily repel each other, allowing more surface area of the fuel molecules to be exposed to oxygen at the point of combustion.

The proprietary combination of rare earth elements contained in Rentar's catalyst cause the saturated straight chain aliphatic (paraffin) molecules to convert into unsaturated ring compound aromatics which in turn releases a small amount of hydrogen. The hydrogen interacts with the dispersed fuel molecules to achieve a more complete combustion.

Simple Installation



Virginia Tech University / Virginia Polytechnic Institute / State University's Alexandria Research Institute Reported a 7.6% Fuel Savings on Commercial Boilers



Virginia Tech Advanced Research Institute

Press Release:

WEST PALM BEACH, Fla. -- Rentar Environmental Solutions, Inc. in conjunction with Virginia Polytechnic Institute and State University's Alexandria Research Institute released the effects of the Rentar Fuel Catalyst on emissions, greenhouse gases, CO₂ and fuel efficiency on a commercial boiler application. The study showed a reduction of 7.6% in fuel use along with NO_x reduction of 13%, CO was reduced 4%, CO₂ was reduced 9% and a Total Hydrocarbon reduction of 13% was realized on an Industrial Combustion furnace burner, which has a fuel input rating of 5.8 MBTU/hr (41 gal/hr or 305 lb/hr).

Joel Ratner, a Director at Rentar says, "The Rentar is well suited for furnace / boiler applications for its ability to reduce harmful emissions while paying for itself in a very short period of time. This is proven on more than 250 furnace / boiler installations in the New England area. "The heating oil industry is hungry for an economical / environmental solution to the recent rising prices of heating oil and this study confirms that the Rentar can lower that fixed cost while reducing emissions.

For further information and to view the actual Virginia Tech study, visit Rentar's website at www.DieselCatalyst.com.

About Rentar Environmental Solutions, Inc.

The first of the Rentar companies were incorporated in 1961. Rentar is a full service environmental solution provider with an A+ rating with the Better Business Bureau. The Rentar Fuel Catalyst has 33 domestic and international patents and is UL listed. Rentar clients enjoy a 3 to 12-month ROI on the cost of the product.

EFFECT OF RENTAR FUEL CATALYST ON EMISSIONS AND EFFICIENCY FROM A COMMERCIAL BOILER FIRING NUMBER 2 HEATING OIL



Virginia Tech Advanced Research Institute

Virginia Polytechnic Institute / Alexandria Research Institute

Commercial Boiler Firing Number 2 Heating Oil

Furnace Located At the Everett Meredith Middle School – Delaware

Study Paid for by the State of Delaware

Results:

7.6% Fuel Consumption Improvement

13.0% NOx Improvement

4.0% Carbon Monoxide Improvement

13% Total Hydrocarbons

7.6% CO2 Improvement by Carbon Balance Assumption

FURNACE EFFICIENCY STUDY PERFORMED BY MAJOR FURNACE MANUFACTURER

Input-Output Efficiency Improvement 14.9%

Oil Heating Value BTU
lb 19,340
Oil Specific Gravity
0.8708

Rentar Furnace Catalyst

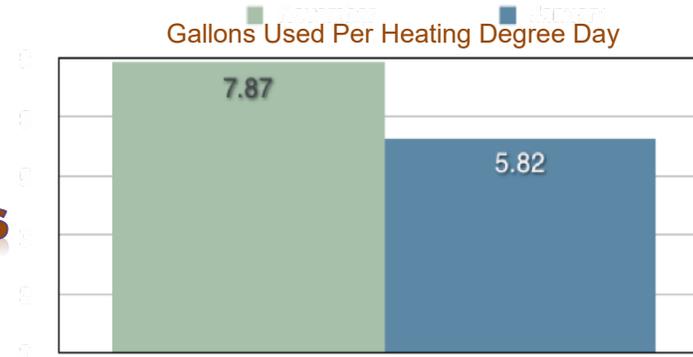
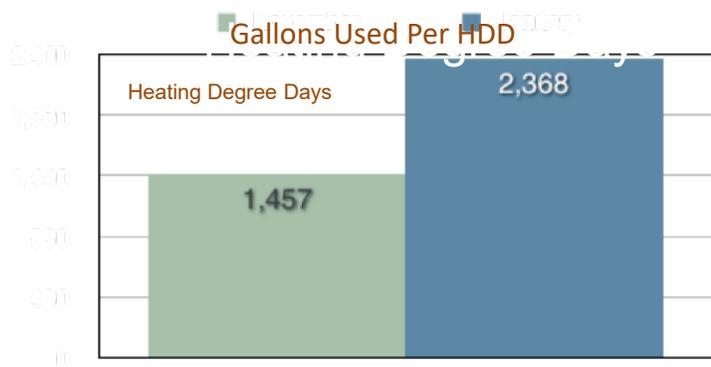
RENTAR
Fuel Catalyst



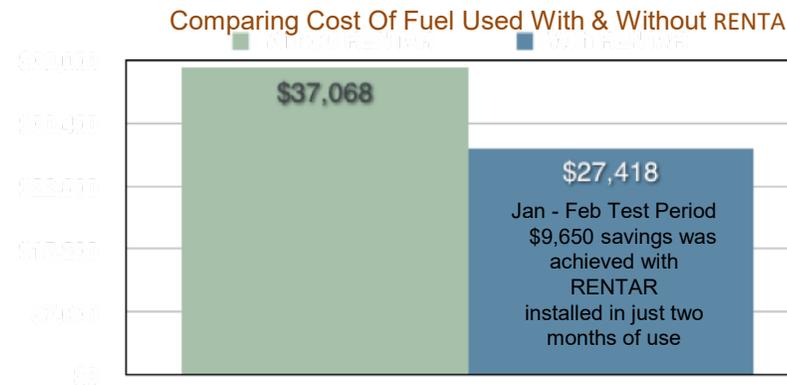
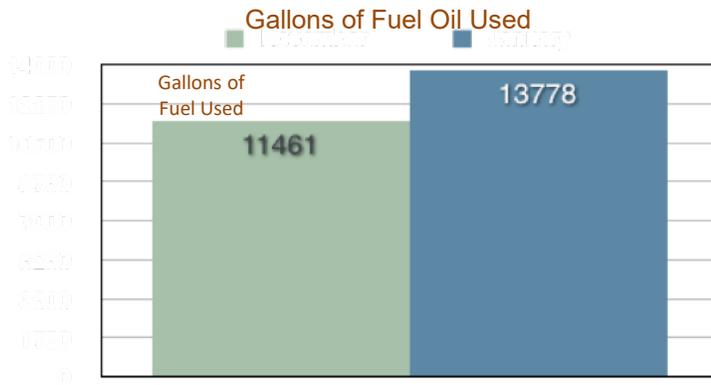
	STD	RENTAR
TEST DURATION, MINUTES	120	120
WATER METER STOP FT3	2,722,928.50	2,723,071.38
WATER METER START FT3	2,722,858.50	2,722,990.00
FUEL STOP, LBS	355.38	360.32
FUEL START, LBS	0.00	0.00
H2O CONSUMED, FT3	70.00	81.38
#2 OIL CONSUMED, LBS	355.38	360.32
H2O CONSUMED, LBS	4,360.86	5,069.81
DELTA H STEAM & FEED H2O	1,148.15	1,148.15
OUTPUT, BTU'S	5,006,921.41	5,820,903.78
OUTPUT, AVG BTU/HR	2,503,460.70	2,910,451.89
INPUT, BTU'S	6,873,049.20	6,968,492.10
INPUT, AVG BTU/HR	3,436,524.60	3,484,246.05
INPUT-OUTPUT EFFICIENCY, %	72.85	83.53

FUEL SAVINGS AT A BOSTON AREA REGIONAL HIGH SCHOOL

Time Trial	Heating Degree Days	Gallons of Fuel Used	Gal HDD	Savings	Fuel Cost \$1.99 / Gal	Fuel Cost using 7.87 Gal/HDD
BASELINE Nov – Dec 2006	1457	11461	7.87		\$22,807	\$22,807
AFTER INSTALL Jan – Feb 2007	2368	13778	5.82	26%	\$27,418	\$37,068



**60
DAYS
SAVINGS
\$9650**



Rentar Fuel Catalysts Installed on Four Ship Furnaces

Black Smoke was eliminated from four furnaces that power the ship. Twenty-eight Rentar Fuel Catalyst were installed, the black smoke was eliminated, and the fuel consumption was reduced.



Testimonial Letters



Date: 02/05/2012

To whom so ever it may concern

This is to certify that HBL –Rentar Fuel Catalyst having following specifications have been installed at Tata Motors Ltd., Lucknow plant

Sr No.	Model No.	Qty	Mounted on Equipment
1	HBEN 2012	02 Nos.	1010 KVA Cummins DG
2	HBEN 2012	02 Nos.	1010 KVA Cummins DG

Since the installation, Fuel catalysts are performing to our satisfaction at above mentioned DG sets. We are pleased to confirm that we have achieved saving of 15.57% on specific fuel consumption.

For M/s. Tata Motors Ltd.


S. M. Singh
DGM – Plant Services

TATA MOTORS LIMITED
Chhat Industrial Area Lucknow 226 019
Tel: 91 522 2818012, 2818020, 2818022 Fax: 91 522 2818246
Registered Office: Bombay House 24 Horni Modi Street Mumbai 400 001



Mahindra & Mahindra Ltd
Agri Development Centre
Tractor Division
Kichha Road, Lalpur (Rudrapur)
Distt. Udham Singh Nagar - 263143
Tel : 91-05944- 280723 / 25
Fax: 91-05944-280724

Date: 24th April '12

Ref no: M&M/RDP/HBL/1204/24

TO WHOM SO EVER IT MAY CONCERN

This is to certify that HBL RENTAR fuel catalyst has been installed on our generators and boiler applications.

The performance of HBL RENTAR Fuel Catalyst has been good and about 6% HSD saving achieved.

We appreciate the green energy efforts of M/S HBL Power System LTD. towards reducing the fuel consumption and carbon emission.




Registered Office: Gateway Building Apollo Bunder, Mumbai-400001.
Phone:2202 1031 Fax : (022) 2202 8760 / 8990

YAMANAGOLD | **15 ANOS**

March 21st 2019

We at Mineração Maracá Indústria e Comércio, a YAMANAGOLD job site, have successfully piloted the Rentar fuel catalyst model HBEN 2012 on our CAT 785C haul trucks with results that surpassed our objectives for fuel efficiency with a payback of less than a year. As a result, we have purchased the Rentar fuel catalyst for installation on our fleet.

We are pleased with the support from SOTREQ, our Rentar dealer, and from the direct relationship with the manufacturer itself. We are also pleased with the trouble-free performance of the catalysts, to date.

We are looking forward to our continued use of the Rentar fuel catalysts.


Fabio Gonçalves
Maintenance Coordinator
Tel: +55 62 3383-4049

YAMANAGOLD **15 ANOS**
Mineração Maracá Indústria e Comércio
Rodovia GO 347 s/n – Fazenda Genipapo
Alto Horizonte GO – Brasil
76560-000
<http://www.yamana.com>



HETERO LABS LIMITED

(UNIT - V) SEZ (UNIT - I)

Hetero Corporate, 7-2-A2, Industrial Estate, Sanath Nagar, Hyderabad - 500 018. A.P. INDIA.
Tel : 23704923/24/25, Fax : 91-40-23704926, 23714250,
E-Mail : contact@heterodrugs.com, URL : http://www.heterodrugs.com

Date: 08-08-2012

TO WHOM MAY IT CONCERN

This is to certify that **HBL RENTAR FUEL CATALYST** has been installed with Thermax make 5 ton Boiler at **HETERO LABS LIMITED**, Jadcherla.

The performance of Rentar Fuel Catalyst has been very good and the fuel saving achieved is **20 %**.

We appreciate the green energy effort of **HBL POWER SYSTEM LIMITED** towards reducing the fuel consumption, black smoke and carbon emissions.

For,

Hetero Labs Limited, jadcherla.



Factory : S. No. 439, 440, 441 & 458, APIIC-Formulation SEZ, Polepally (V), Jadcherla (M), Mahaboob Nagar (Dist) - 509301

Hetero Labs Limited *Hyderabad*

- Thermax Make 5 T boiler
- Fuel Savings Achieved 20%
- Rentar Model Used HBFN 3016



HBL Power Systems, Vizianagaram
 BRAU DIVISION
 ROTARY FURNACE -1

operation with out RENTAR

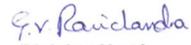
Date	S No	Burner		Total Hours	F O Consumption	Avg/Per Hour	Production in Kgs	Yield in KGs/Ltr. Of FO	Remarks
		Starting time	Stoping Time						
18/4/2011	1	9:30	13:30	4:00	255	64	3340	13.1	
19/4/2011	2	23:55	3:20	3:25	310	91	3715	11.98	
19/4/2011	3	10:00	13:20	3:20	200	86	2660	13.3	
20/4/2011	4	2:30	7:22	4:52	333	69	4239	12.73	
21/4/2011	5	8:15	12:20	4:05	240	59	3131	13.05	
				19:42:00	1338	72	17085	12.77	

Operation with RENTAR

21/4/2011	1	13:25	16:20	2:55	182	63	3296	18.11	
21/4/2011	2	18:00	21:40	3:40	215	59	3233	15.04	
23/4/2011	3	4:40	8:10	3:30	199	57	4091	20.56	
24/4/2011	4	6:50	10:00	3:10	186	59	2847	15.31	
24/4/2011	5	10:45	2:15	3:45	200	53	3201	16.01	
25/4/2011	6	13:30	17:00	3:30	221	63	3269	14.79	
				20:30:00	1203	59	19937	16.57	

Savings Caluculation	Yield With out RFC	: 12.77 Kgs/Ltr
	Yield With RFC	: 16.57 Kgs/Ltr
	% Improvement	: 22.93%


 10/5/2011
 Maint. Incharge


 G.V. Ravichandha
 Division Head

HBL POWER SYSTEMS LIMITED

Works : Survey No. 123 to 126, 138(P) to 144(P), Kandivalasa (Village), Pusapati Rega (Mandal),
 Vizianagaram (Dt.) - 535 204. A.P. INDIA
 Regd. Office : 8-2-801, Road No.10, Banjara Hills, Hyderabad - 500 034. INDIA.
 Tel : +91-40-23355575, Fax : +91-40-23355048, 23353189
 visit us at www.hbl.in

HBL Power Systems Limited Viziayanagaram, A.P

Rotary Furnace – HFO Fired

Fuel Savings : 22.93%

RANBAXY

VILL. BHATAULIKALAN, NEAR EPIP, PHASE-I, P.O. BAROTIWALA, TEHSIL NALAGARH, DISTT. SOLAN (H.P.) PH. 09318648600, 09318948600

Date: 23.04.2012

TO WHOM MAY IT CONCERN

This is to certify that HBL Rentar Fuel Catalyst has been installed with Thermax make 3 ton Boiler at Ranbaxy Baddi.

The performance of Rentar Fuel Catalyst has been very good and the fuel saving achieved is 4.5 %.

We appreciate the green energy effort of HBL Power System Limited towards reducing the fuel consumption and carbon emission.

For

RANBAXY BADDI



Anil Kumar Sharma



RANBAXY LABORATORIES LIMITED
REGISTERED OFFICE : A- 41, INDUSTRIAL AREA PHASE VIII-A, SAHIBZADA AJIT SINGH NAGAR, MOHALI - 160 071 (PUNJAB) INDIA
Website : <http://www.ranbaxy.com>

*Ranbaxy Laboratories Ltd
Baddi, HP*

Thermax Make 3 Tons Boiler

Fuel Savings achieved : 4.5%



AMEET INDUSTRIES

Plot No. A-25, M.I.D.C. Industrial Area, Taloja, District : Raigad, PIN : 410208

☎ : 022-2741 2546/49 • Telefax : 022 - 2741 2540 • Email : ameeindustries@rediffmail.com

Date:- 25/02/2012.

M/s. HBL Power Systems Limited
8-2-601, Road No: 10
Banjara Hills
Hyderabad 500 034

Dear Sir

Sub: Performance of Rentar Fuel Catalyst on our Furnaces.

We are pleased to confirm that we could achieve a fuel savings of 9.5 % plus on our Furnace oil fired forging furnaces of 7 Tons capacity. We have installed HBL RENTAR Model HBFN 2016 = 2 Nos on 17/1/2012 and since then we could reduce the fuel consumption by 9.5 % plus and also we have observed the black smoke reduction substantially.

We strongly re commend Rentar Fuel Catalyst for other furnace users for reduction in fuel consumption and black smoke.

Thanking you

Yours truly

For Ameet Industries



Ameet Industries, Taloja, Maharashtra

**Forging Furnace – HFO Fired
2 Number Burners**

Fuel Savings : 9.5%





HETERO LABS LIMITED

(UNIT - V) SEZ (UNIT - I)

Hetero Corporate, 7-2-A2, Industrial Estate, Sanath Nagar, Hyderabad - 500 018. A.P. INDIA.
Tel : 23704923/24/25, Fax : 91-40-23704926, 23714250,
E-Mail : contact@heterodrugs.com, URL : http://www.heterodrugs.com

Date: 08-08-2012

TO WHOM MAY IT CONCERN

This is to certify that **HBL RENTAR FUEL CATALYST** has been installed with Thermax make 5 ton Boiler at **HETERO LABS LIMITED**, Jadcherla.

The performance of Rentar Fuel Catalyst has been very good and the fuel saving achieved is **20 %**.

We appreciate the green energy effort of **HBL POWER SYSTEM LIMITED** towards reducing the fuel consumption, black smoke and carbon emissions.

For,


Hetero Labs Limited, jadcherla.



Factory : S. No. 439, 440, 441 & 458, APIIC-Formulation SEZ, Polepally (V), Jadcherla (M), Mahaboob Nagar (Dist) - 509301

Hetero Labs Limited Hyderabad

- Thermax Make 5 T boiler
- Fuel Savings Achieved 20%
- Rentar Model Used HBFN 3016



2nd July'2012

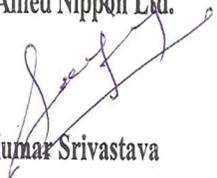
Performance Certificate

This is to certify that HBL Rentar Fuel Catalyst has been installed on Thermax make Thermopack at Allied Nippon Ltd, Sahibabad.

The Performance of the Fuel Catalyst has been very good and the fuel saving achieved is more than 10%.

We appreciate the efforts from M/s HBL POWER SYSTEMS LTD towards reducing the fuel consumption and carbon emission.

For M/s Allied Nippon Ltd.


Sanjay Kumar Srivastava
(Manager – Maintenance)

Allied Nippon, Sahibabad, UP

Thermax Make “ Thermo pack”

Fuel Savings : 10%

Rentar Unit Used

CBS VIDEO

Click on Video to Play or Pause



See CBS Video – Click on
<https://vimeo.com/268843737>

CBS TELEVISION REPORT ON FURNACE FUEL SAVINGS IN
PUBLIC SCHOOLS USING THE RENTAR FUEL CATALYST



United States Department of Commerce

Credentials



Export Achievement Award



World's 4th Largest Caterpillar Dealer
A Rentar Distributor
400 Offices - 4300 Employees



Export-Import Bank of the United States
Official Export Credit Agency



\$2 Million International Product Liability Insurance



LISTED

Member

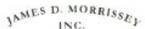


Economic Development Organization for the State of Florida



California Resource Board Executive Order (CARB)

Rentar Fuel Catalyst Purchasers

     	     	     	     	    	     	   	   	   	     	     	     
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I like the Rentar Fuel Catalyst

Contact: JoelRatner@mac.com

Cell: 1+561-603-6549

Website: DieselCatalyst.com

