

CATALYTIC CONVERTER RECYCLING  
TECHNOLOGIES



**PROSES MAKİNA**  
Refining & Recycling Solutions

**CATALYTIC CONVERTER  
RECYCLING**

**PROSES MAKİNA  
TECHNOLOGY**



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# CATALYTIC CONVERTER RECYCLING TECHNOLOGIES

## Who Are We?

We work and make benefit design with our factories we cooperate for incoming demand from our customers. Process Machine Company and that factories have professional substructure and working together are able to provide a turn-key close loop process which includes recovery and refining of all precious metals like gold, silver, platinum group metals from E-Scrap, Catalytic Converter, Jeweller, and Mine.

**Recover Precious Metal From Waste Electronic Without Loss!**

Process Machine Company present permanent solutions to the clients. Most of the recycling plant can lose Cu and Au during physical process of E-Waste.

With Process Machine Company's systems, you can catch all of them. Without loss and take more profit!

## What Are We Doing?

Process Machine Company produce machines of precious metal recycling and refining. With Process Machine Company you can do business which listed below

- E-waste Recycling And Refining Systems
- Catalytic Converter Refining and Recovery System
- Precious Metal Refining From Mine
- Rare Metals Recovery and Refining
- Refining Of Jewellery Materials
- Waste Chemical Liquid Neutralization Systems
- Spare Parts Of Jewellery



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## Completed Projects

Process Machine Company completed 4 projects in E-Waste, Jeweller and Mining Fields. On the other hand, Process Machine Company in business of cooling and completed more than 30 project in the cooling area.

- Serbia (Rubin Recycling Company)
- Niger (Precious Metal Mining Co.)
- Asia– Myanmar (Mining)
- Asia-Vietnam (Catalytic Conv. Refining)
- Iran (E-Waste and Catalytic Conv.)
- Pakistan (E-Waste)
- Israel (Silver Refining and Tantalum Recovery Process and Systems)

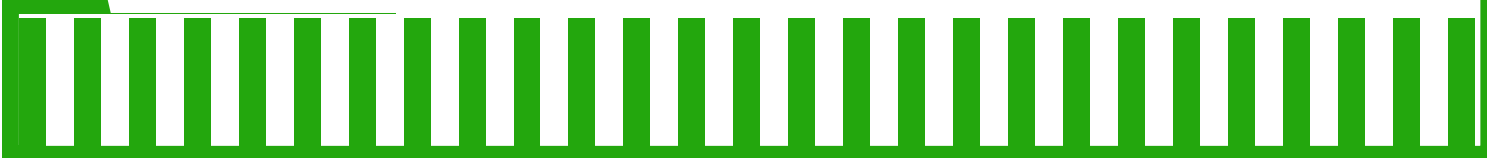


## On-going Projetcs

- Cat Converter Recycling and Refining (Mexico)
- Tantalum Recovery and Refining System (Tanzania)
- E-Waste Recycling and Refining System (South Africa)
- Cobalt and Molybdenum Recovery System From Spent Catalyst (Romania)



# Recycling your catalytic converter



# CATALYTIC CONVERTER RECYCLING TECHNOLOGIES

## Proses Makina's Decanning System

When most people today envision decanning they still have an image of traditional catalytic converter decanning with a guillotine shear or alligator shear with some vacuum nearby. Historically this is the method most used by companies in the market, yet it is the most inefficient way of decanning.

**Proses Makine** recognized the inefficiency of traditional catalytic converter decanning last year and created the most effective and efficient system known to our industry.



This system is capable of extracting 2-6% more out of catalytic converters than any method on the market today and is shear-free. In addition this system is capable of processing ceramic catalyst, foil catalyst and iron side all in the same system.

After Process Machine Company's decanning process clients can see each material in the different box.

**No Touch, No Losing! More Effective and Process More Catalytic Converter In 1 Hour!**



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## Traditional De-Canning Process Equipment

The closed-loop de-canning system is a purpose-built dust extraction unit which has been designed to work in conjunction with a Proses Makina catalytic converter shear. It provides a safe working environment for your operators, increases throughput, and maximises dust collection. A filtration unit removes airborne dust at the shear head and a screw conveyor transports solid material from the shear into a collection bag. Using an Our traditional de-canning system will ensure that the operator is protected from the dust and as much of the valuable catalytic converter content is recovered as possible.



# CATALYTIC CONVERTER RECYCLING TECHNOLOGIES

## Milling and Make Optimum Size

The Proses Makine Ball Miller is a key device for processing smashing after materials are broken into pieces. As one of the high-grinding devices, it is equipped with a wide applicable grinding scope such as powder, crystal, ceramic raw materials, etc. This grinder is featured for grinding without putting any liquid. Regarding dry grinding, the fineness can be adjusted optionally from 20 to 600 meshes.



### Technical Specifications:

- Capacity (kg / h): 150
- Electric motor (kW): 3
- Weight (kg): 130
- Mechanical Dimensions (Diameter x Length): 900 x 900
- Rotation Speed(d/d): 35
- Volume (lt): 330

## Milled Powder Roasting Unit

Specially designed for burning Catalytic. Easy to use with drawer style charging units. Capable of working with electric or gas energy. And provides a longer refractor life. The oven provides best condition to burn the dirt on the catalytic converter



# CATALYTIC CONVERTER RECYCLING TECHNOLOGIES

## Catalytic Converter Leaching Process

This machine is used to recover all precious metal from catalytic converter dust. Leaching Operation Machine must be used after the milling process of catalytic converter material.

- Short Residence Time With Special Design
- High Recovery Efficiency
- Easy To Operate
- Automatic Feeding and Semi-Automatic Discharge



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## Chemical Refining Units

Ecological, No harmful fumes, no smell & smoke, Turnkey of Pt, Pd and Rh from alloy or mixed dust. Process Machine Company is using three different materials while produce machine reactor. Titanium, Static Glass and PP Reactor can provide to clients.



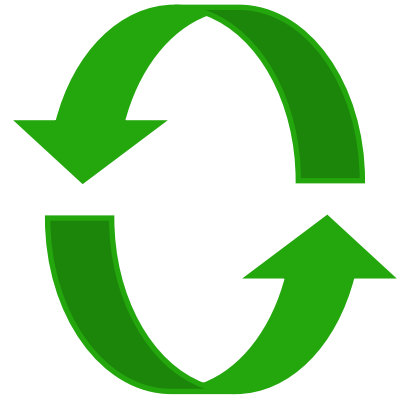
	NEW PM 2	PM 7	PM 15	PM 30	PM 60	PM 120
<b>Power supply</b>	400 V three phase	400 V three phase	400 V three phase	400 V three phase	400 V three phase	400 V three phase
<b>Power</b>	1.3 kW	2.8 kW	5,1 kW	8,9 kW	17 kW	23 kW
<b>Quantity refinable</b>	2-2,5 kg	7 kg	15 kg	30 kg	60 kg	120 kg
<b>Dimensions (mm)</b>	1200 x 670 x 1120	1400 x 1040 x 2060	1950 x 1080 x 2340	1950 x 1080 x 2340	3200 x 2000 x 3200	3600 x 2200 x 3600
<b>Weight (approx.)</b>	80 kg	250 kg	350 kg	400 kg	550 kg	650 kg



# CATALYTIC CONVERTER RECYCLING TECHNOLOGIES

## Recovery Rate Of PGM's (*Precious Group Metals*)

When calculated for all process, the recovery rate will be;



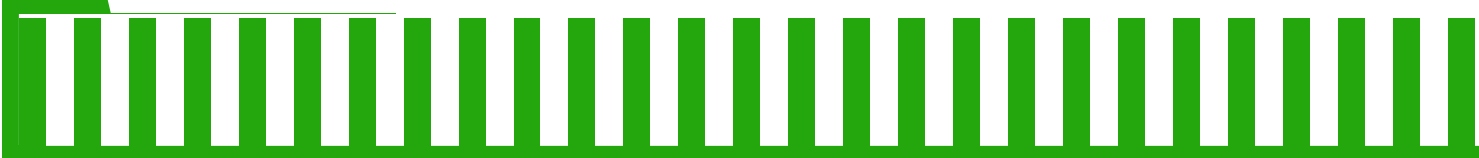
For Platinum >98,7



For Palladium >98,8



For Rhodium >96,7



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**SCRAP  
CATALYTIC CONVERTER  
TO METALS AND MONEY**

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