



*Respecting the Environment for the future*

# Catalyst Application for Industries

**Industrial Environment Catalyst Dept  
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# Catalyst Technologies

## For Off-gas treatment

- To treat off-gas from industries which contains VOCs or odor  
Purpose: clean emission, meet to regulation, energy saving, avoid complain from neighborhood, etc.

## For Purification

- To purify gases  
Purpose: have high grade gas products, De-oxygen, remove impurities for circulation system, etc.

## For Oven cleaning

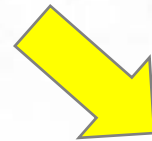
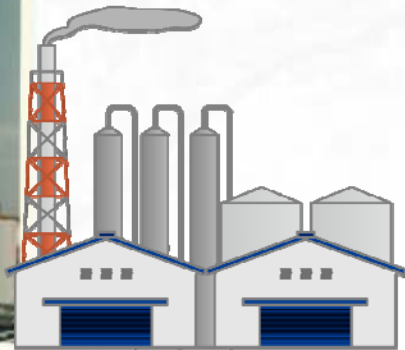
- To secure good condition in the heated oven  
Purpose: energy saving, quality improvement, etc.



# Off-gas treatment

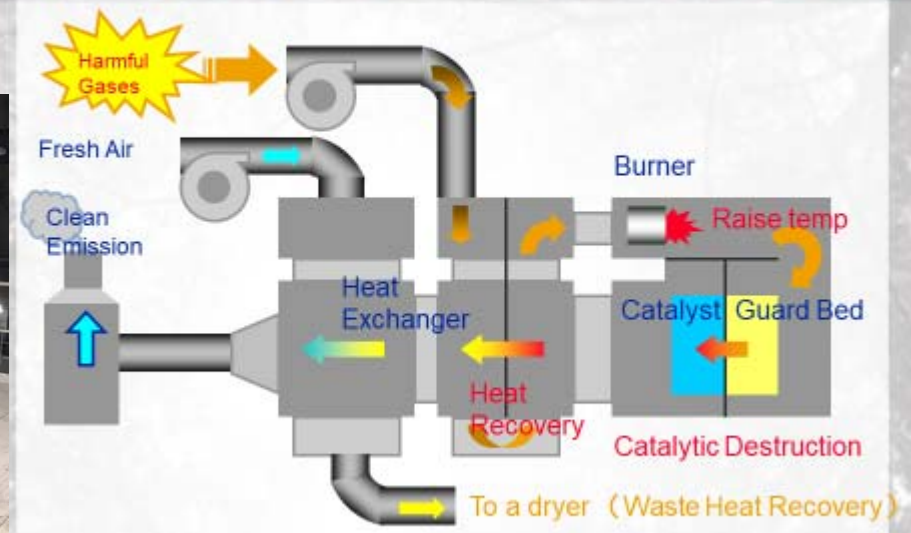


Off-gas from factory's production



Clean up by catalytic combustion system

## Catalytic Combustion System Flow (Example)

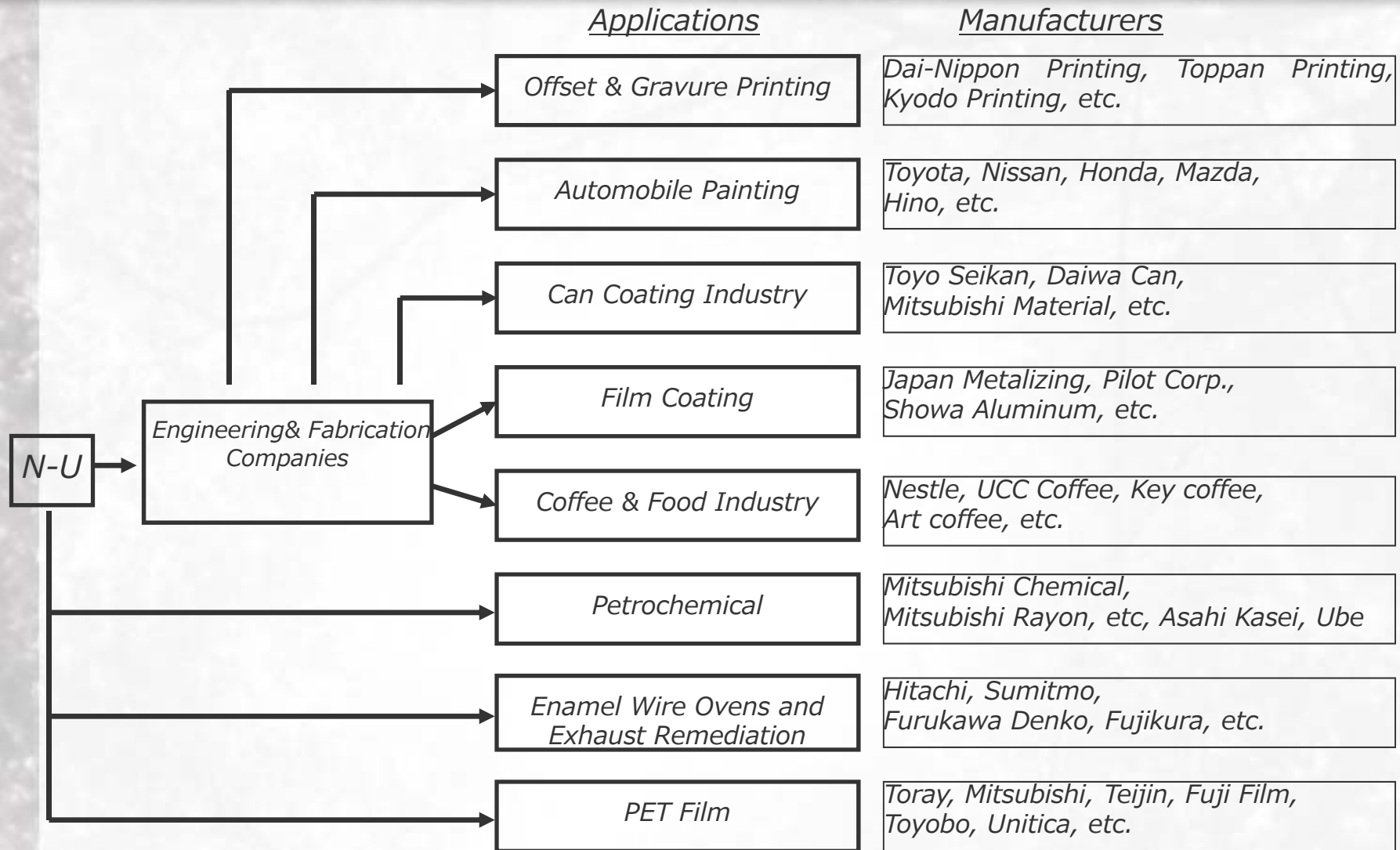


Clean emission





# TYPICAL OXIDATION CATALYST APPLICATIONS EXAMPLES







# Petrochemical Process Off-gas Treatment Commercial References

<b>Application</b>	<b>Total</b>
<b>Acrylic Acid (AA)</b>	<b>15</b>
<b>Maleic Anhydride (MA)</b>	<b>2</b>
<b>Methyl-Methacrylate (MMA)</b>	<b>10</b>
<b>Ethylene Glycol (EO/EG)</b>	<b>7</b>
<b>Phthalic Anhydride (PA)</b>	<b>1</b>
<b>Pure Terephthalic Acid (PTA)</b>	<b>2</b>
<b>Isophthalic Acid (IPA)</b>	<b>1</b>
<b>Propylene Oxide (PO)</b>	<b>1</b>
<b>Dimethyl Oxalate (DMO)</b>	<b>1</b>
<b>Phenol/Cumene</b>	<b>3</b>