

Best Practices Catalogue

Cleaning of support brackets by pyrolysis
Developed within the framework of MED TEST II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is
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Best Practice - Cleaning of support brackets by pyrolysis

SECTOR:	Metal, electrical and motor vehicle parts
Branch:	Manufacture of parts and accessories for motor vehicles
CATEGORY	Technology upgrade/Eco-innovation
APPLICABILITY	Process

COMPANY SIZE	500
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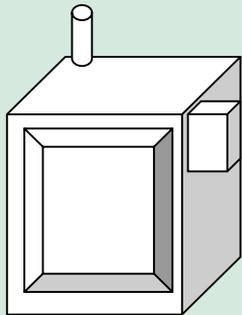
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Description of the Problem (Base Scenario):

During the application of paint, the pieces are hung on hooks. These need to be cleaned each time in order to be reused.

The removal of the paint from the hooks is done by chemical treatment using cleaning products, which generates hazardous waste and can also have an impact on the deformation of the parts

Description of the Solution



The pyrolysis process replaces the chemical stripping system. It consists of placing the hooks inside a furnace for a period of about 4 to 8 hours, until they gradually reach a temperature of 350/450 °C, then to allow them to cool at room temperature. The toxic smoke generated inside the furnace is directed into the afterburner, where it is burned at 900 °C for elimination. This process enables:

- A reduction of hazardous waste
- A reduction of chemical product consumption
- A Productivity enhancements
- A reduction in Waste Management costs

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Economic Gains	€ 10,000
Environmental Gains	Reduction of 60 tons of sludge, or 30% of hazardous waste
Health and Safety Impact	No use of chemical products



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Capital Investments & Financial Indicators € 15,000
Time for Return on Investment: 1.5 year

Supplier Information Imported

Other Aspects Productivity enhancement

Implementation Under implementation



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