## Catalytic Converter for BKG® JCP Jet Cleaners

## **Function of the Catalytic Converter**

Instead of the secondary separator, a catalytic converter is extremely effective for cleaning the oven air and guarantees the cleaning according to the German Technical Guidelines on Air Quality Control.

## **Cleaning Procedure (Redox Reaction):**

CmHn+xO2  $\rightarrow$  y(CO2) + z(H2O) NOx + H2 / HC  $\rightarrow$  N2 + CO2 + H2O

This means the neutral substances N2, CO2 and H2O from the gaseous hydrocarbons (split-off gases) of the plastic reach the environment. Thus, no pollutants of any kind reach the environment.

**Warning:** The catalytic converter must not be used when processing chlorine and fluorine-containing plastics or with catalyst poisons such as lead, heavy metals, halogens, sulfur or carbon monoxide!

## **Alternative Filter Technology**

Filter cascades (several in series) with activated charcoal and marble chips can also be used for cleaning exhaust air and wastewater (see process diagram c below). The exhaust air is conducted over tanks with activated char-coal which absorb the hydrocarbon parts. Similarly, the wastewater cleaning is done using activated charcoal and possibly using a downstream container with marble chips for reacting with

Catalyst Elements

Inlet heated fresh air

Air to Vent

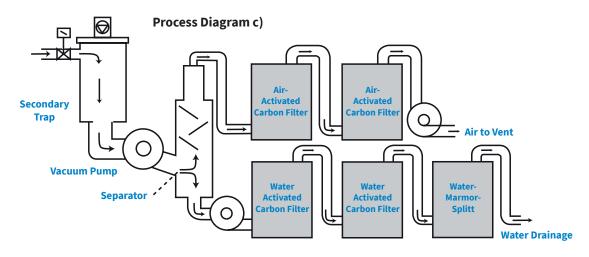
Catalyst Elements

Vacuum Pump

Drainage

Process Diagram b)

other radicals e.g. chlorine. The exchange or cleaning intervals depend on the amount of cleaning. The filtration system includes an additional water pump and an exhaust air blower. The design of the system must be made individually depending on the Jet Cleaner and the material for cleaning.



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