

BEST AVAILABLE TECHNIQUES FOR FOUNDRIES

The Flemish Centre for Best Available Techniques (BAT centre) is an initiative of the Flemish Government and Vito. The BAT centre collects and distributes information on pollution prevention techniques. Moreover, it advises the Flemish authorities how to translate this information to its environmental permit regulation and to the ecoinvestment support policy.

Central in this translation is the concept "BAT". BAT corresponds to the techniques with the best overall environmental performance that can be introduced at a reasonable cost. This document contains an overview of available information on foundries.

Foundries produce metal products by means of "liquid moulding". The metal is molten in a furnace and casted into moulds. The obtained casting is finished according to customer specifications. The most important environmental problems are dust and CO emissions as a result of the melting process. As for dioxine emissions, the foundries are thought to be responsible for 1 % of the total industrial emissions of dioxines in Flanders. The selected BAT consist of a number of measures that improve the environmental performance of the foundries without putting an unreasonable financial burden on the companies involved. The selected BAT are e.g.:

- efficient hoods and ventilation;
- fabric filters;
- afterburners;
- the use of flame furnaces or electric induction furnaces instead of cupola furnaces;
- collecting and neutralizing VOC emissions during the preparation of moulding sand;
- the use of alternative coatings.

Based on the BAT the current Flemish sectoral dust and CO emission limit values were assessed and a new value for dust (20 mg/Nm) is suggested. Although most existing installations do not exceed the current dioxine emission limit value of 1,0 ng TEQ/Nm³, no BAT were selected for reduction of dioxine emissions if this level should be exceeded.

Therefor more research concerning dioxine emissions at foundries is proposed.

Full Dutch version available [here](#) (4382 Kb)

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