

Dear Reader,

Welcome to our Easy Guide Blast. In a few words we would like to introduce the content of our Beryllium-containing materials guide on **STAMPING OPERATIONS**.

## CONTEXT OF THE BE RESPONSIBLE PROGRAMME



As you may know, the Be Responsible Programme was launched by the Beryllium Industry in an effort to advance the science of beryllium health and safety as well as protect beryllium workers and their close entourage.

The Beryllium Science and Technology Association, representative association of key players of the beryllium industry, and its members stress that substantial uncontrolled workplace exposure to beryllium airborne particles can present a potential health and safety risk to employees.

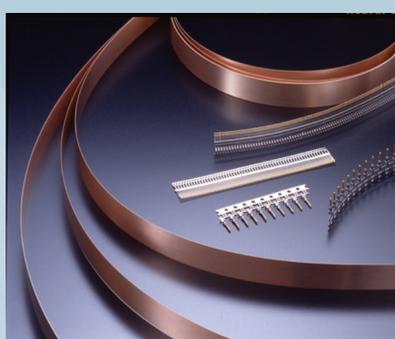
We will be sharing with you information on Stamping Operations. This is the second of nine guides on specific processes provided by the Be Responsible Programme.

### What we must achieve

The inhalation of beryllium-containing dust, mist or fume can cause a serious lung condition in some individuals. The use of engineering and work practice controls are the preferred methods of controlling exposure to beryllium-containing particulate reliably below the BeST Recommended Exposure Guideline (REG) of 0.6 microgram of beryllium cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) (inhalable), measured as an 8-hour time weighted average (TWA) or the national occupational exposure limit (OEL) implemented by the Member State for airborne beryllium.

### What are stamping operations?

Strips in copper-beryllium alloys (CuBe2) are stamped in different shapes, sizes and designs for their use as components in electrical and electronic equipment.



Stamped copper-beryllium strips



Typical punch press

## How to achieve the REG during Stamping Operations

Case studies conducted in stamping facilities indicate that airborne beryllium levels generated by precision stamping operations are unlikely to generate exposures known to adversely affect health. Stamping operations are low inhalation concern operations. Special controls are not required under normal operating conditions.

## What happens after Stamping Operations?

Beryllium containing alloy stamped parts can be further processed in secondary finishing and chemical operations, such as cleaning, etching and plating. Copper beryllium alloys can be safely processed using the methods and controls commonly utilised in these secondary finishing and chemical operations.

Where beryllium containing alloys are chemically cleaned by corrosive processes using acids or bases, local exhaust ventilation must be installed to minimise the escape of mists or vapors into the workplace. The system should be designed and operated in accordance with commonly accepted ventilation principles and pertinent environmental regulations.

Chemical solutions used in the cleaning and processing of beryllium containing alloys must be contained to prevent splashing onto floor areas, external structures or operators' clothing.

### **GOLDEN RULE 1**

As always, housekeeping, maintenance and workplace exposure characterisation must be implemented.

### **GOLDEN RULE 2**

BeST recommends that quantitative and qualitative exposure assessments be conducted by a qualified industrial hygienist or occupational health professional.

## WANT TO KNOW MORE?

Check out our dedicated website [www.berylliumafety.eu](http://www.berylliumafety.eu) in all European languages or get in contact with us at [info@beryllium.eu](mailto:info@beryllium.eu)

## WHAT ABOUT THE OTHER GUIDES?

We will provide similar Easy Guide Blast for all our Be Responsible Guides in the coming months on a regular basis so keep an eye out for our emails! Previous Easy Guide Blasts are available [here](#).