

Xmercury System

AUSTRIAN COOPERATION HELPS TO REDUCE MERCURY EMISSIONS

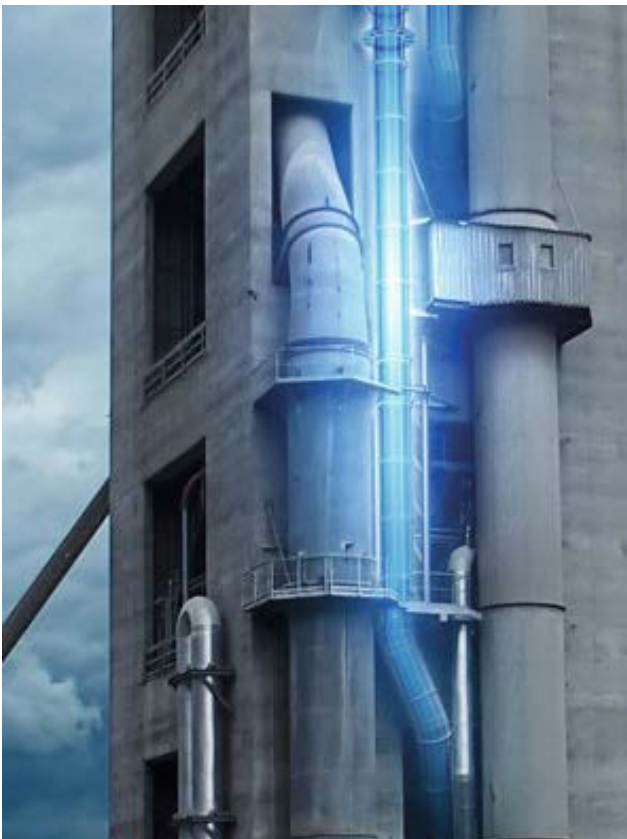
Due to the environmental impact Mercury emissions are in focus worldwide. Being present in raw materials and/or fuels, Mercury can affect the cement production process and its emissions directly.

According to the United Nations Environment Programm, the cement industry contributes an estimated 10 % or about 190 metric tons per year of all global mercury emissions.

Time for a change:

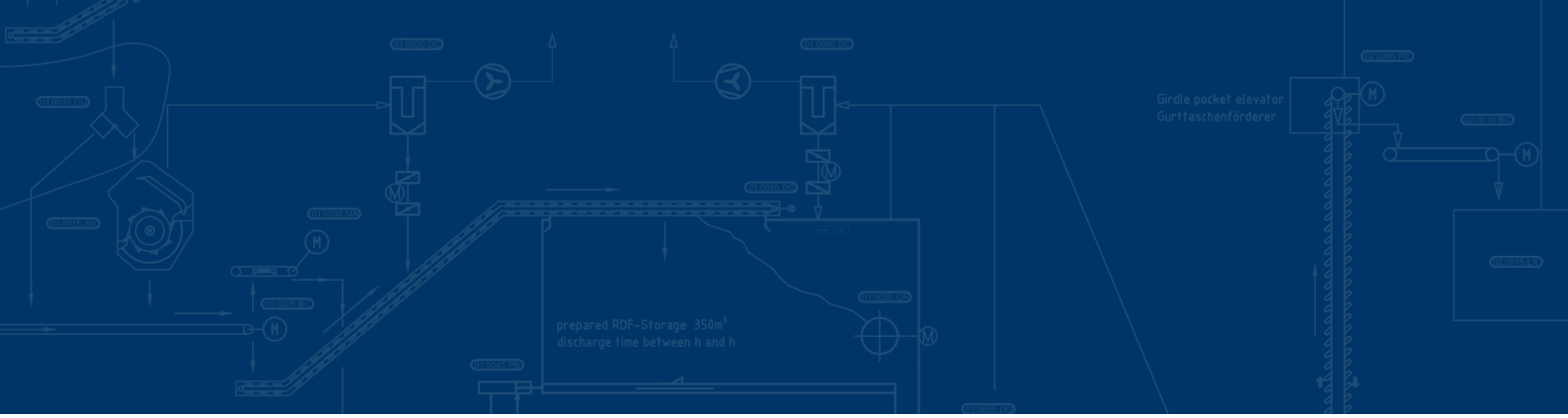
The objective of the industry is to minimize the release of Mercury to the environment from cement manufacturing as some cement kilns are facing Mercury emissions already close to actual limits.

In order to reduce mercury emissions, the Austrian companies A TEC Production & Services GmbH as well as SCHEUCH GmbH developed a new technical innovation: the Xmercury splitted preheater system.



Recent Projects:

- w&p Zement Wietersdorf (AT): Xmercury pilot plant for the reduction of mercury emissions.
- Schwenk Zement Allmendingen (DE): Xmercury



IT'S WAY OF FUNCTIONING IS SIMPLE:

The basic idea is to keep investment and operational costs at a minimum while achieving highest efficiency of Mercury reduction.

A small fraction of hot gases is extracted from the lower part of the preheater. In the splitted preheater, the filter dust (which is high in Mercury) will be mixed with hot gases in order to release the Mercury from the dust. The clean dust will be separated with high efficiency cyclones and a ceramic filter.

The dust – free of Mercury – returns to the preheater. The gaseous Mercury is condensed and bound by additives. The additives stay pure (clean from dust) and can be re-used.

Benefits:

- Up to 80 % emissions reduction
- No additional thermal losses for treatment
- Low additive consumption – low costs for additives
- Low gas quantities to be treated (3-10 %)
- System includes high efficiency cyclones
- Low life-cycle costs
- No raw meal separation necessary
- Low amount of additives required

