




Resale of a machinery system for the crushing and recycling of all types of fluorescent lamps (08 FR 37M3 0IQ9) 

Abstract

A SME located in the North of France, resells its machinery due to an evolution of its industrial activities. That process plant has already been used during 3 years and half with full satisfactory.

That machinery enables the recycling of the lighting lamps, through a complete process crushing the lamps, separating and stocking the differents materials: phosphor powder, glass, ferrous compounds and non-ferrous compounds (aluminium).

Description

The machine is fully automatic, easy to operate and has a capacity to reach over 2 000 lamps per hour (depending on tube length). The length of the plant is 6,06 meters; width 2,45 m and height 2,6 m (20 ft standard container actually). The weight is approximately 5 tons.

All the materials are put together at the entry of the process; Its versatility allows the processing of various types and sizes of fluorescent lamps, separating the lamps into soda lime glass, aluminum end caps, lead glass/ferro metal components and phosphor powder.

The phosphor powder is separated from the by-product in different steps, which is one of the reasons behind the excellent purity. This is done in a sophisticated and innovative air transportation system. The mercury bearing powder is collected in distiller barrels beneath the cyclone and the self cleansing dust filters. The electrical consumption is 25 kW.

The entire process is incorporated in a container, in which the air is brought to sub-pressure. Thereby preventing mercury from being released into the environment, as exhaust air is constantly discharged through the internal carbon filters.

Innovations and advantages of the offer

According to the actual knowledge, the by-products components are the cleanest on the market, meeting the strictest standards for purity and low mercury residue values. These by-products also have a secondary market value.

The process is compact, needing a rather small place, with an easy utilisation and a minimum maintenance. The container is also easy to transport from one using place to another.

Current and Potential Domain of Application

Recycling of fluorescent lamps

For further information (including IPR status)

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