

Fact Sheet

Advanced fluorescent lamps recycling by econ industries



econ industries

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Imagine – Zero industrial waste ... !

Recycling of fluorescent lamps

Closing the loop, recover valuable resources, protect the environment

Due to environmental regulations fluorescent lamps have to be collected separately from other waste streams. Their mercury content requires procedures with special attention regarding health, safety and environmental protection.

econ industries offers a system that recovers the constituents soda-lime-glass, metal, fluorescent powder (rare earths) and mercury. Special attention is paid to the glass quality, that can be resold to lamp manufactures as pure soda-lime glass with a guaranteed purity.

The process is designed to treat all different kinds of fluorescent lamps: straight tubes, bent tubes, circular tubes, special shaped lamps, broken lamps, CFL (Compact Fluorescent Lamps), HID (High Intensive Discharge Lamps) and even broken glass and waste from lamp production. A certain washing process ensures that Fluorescent powder and mercury contaminants get removed from the glass. The closed loop water system warrants a low water consumption. The washed out fluorescent powder forms a sludge which is removed. Mercury can be recovered from fluorescent powder (sludge) by VacuDry® vacuum distillation.

Due to advanced technologies applied in econ's lamp recycling plant a high recycling quota can be achieved while limiting mercury emissions to a minimum. econ's fluorescent lamps recycling plant fulfils the environmental requirements of tomorrow already today.

Key facts

■ Input material:	fluorescent tubes, compact fluorescent lamps (CFL), high intensity discharge lamps (HID) (except Xenon lamps)
■ Available throughput capacities:	0.75-1.5 t/h
■ Installed electric power:	120 - 180 kW
■ Availability:	> 90 %
■ Water consumption:	0.15-0.3 m³/h



Cullet washing unit



3D model of an econ fluorescent lamps recycling plant



Recovered soda lime glass, metals & mercury

Greatest benefits of the econ fluorescent lamps recycling technology

- Recovering method with the highest quota for soda-lime glass and mercury
- Meets the requirements of lamp manufacturers in Europe
- Low labour costs
- High working safety, minimal emissions
- Well-proven technology – operating for more than 10 years
- Technology of Europe's market leader