

Press release

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Cleantech ends the tug-of-war between profit and environment in the cement and lime industry

The cement and lime industry is now looking into alternative fuels as a solution for global environmental issues. In order to succeed, the sustainability approach must be supported by economic incentives. Tire-derived fuel presents a cost-efficient alternative for fossil fuels and can increase the profits of cement manufacturers.

Due to rapid urbanization, there is an increasing need for cement especially in developing areas in Asia, South-America and Africa. The cement and lime industry is growing but the smartest actors in the field already look ahead. In the future, profits lie in sustainable solutions such as alternative fuels: tire-derived fuel (TDF) is an environmentally-friendly and cost-efficient replacement for materials like oil and coal that have traditionally been used in cement kilns.

Fuelling cement kilns with shredded tires means less business risks and more profit

The energy consumption of cement kilns is one of the largest expenditures in cement production. If it can be optimized by switching to alternative fuels, there is a direct effect on cement producers' bottom line. Using TDF saves significantly in fuel costs as the heat value of tire shred is almost equal to oil and 25% better than that of coal. Additionally, TDF decreases the NOx emissions produced by cement plants and makes cement producers less affected by the changes in the oil price.

'The material available in areas of rapid urbanization is often mixed waste that needs to be separated, shredded and screened before it can be safely used. If the quality of the refuse-derived fuel (RDF) input material is not consistent, cement producers cannot maintain certain temperature in the kiln and produce poor-quality clinker.' Josef Imp, Vice president, Sales, Tana

Producing the high-quality fuel cement kilns require often demands several machines. That reduces the cost-efficiency of alternative fuels.

Abandoning fossil fuels requires effective waste management equipment

TANA is a Finnish cleantech forerunner that aims to increase the usage of alternative fuels in the cement and lime industry. With TANA's waste shredder, cement manufacturers can produce alternative fuel of the required particle size in one pass. That guarantees significant cost savings.

TANA Shark shredder can turn even difficult material like end-of-life tires into alternative fuel. The consistent quality of the tire-derived fuel (TDF) results in high-quality clinker. Moreover, it gives better control over the CO2 and NOx emissions in the form of more efficient incineration. Compared to RDF, there is less variability in TDF which makes the burning process easier to manage.

'Using only alternative fuels in cement production is the future. There are already examples in the market where fossil fuels have been substituted by 85% with alternative fuels coming out of waste streams.' Josef Imp, Vice president, Sales, Tana.