

Stainless steel is the most cost effective, hygienic and viable metal for sugar industry, finds a study

Lower maintenance and longer life cycle gives stainless steel an edge over other materials

Indore, 20th August, 2018: Corrosion and rapid wear of equipments, that transform cane sugar to refined white sugar, are the two major problems that afflict the growth of sugar industry. A technical study supported by Jindal Stainless Ltd along with JP Mukherjee & Associates, a global sugar industry consultant has concluded stainless steel as the best material for use in sugar industry. This joint study was undertaken to identify issues and recommend the best material for sugar industry equipments. The study was released today at the annual convention of Sugar Technologists' Association of India. Commenting on the release of study, Managing Director, Jindal Stainless, Mr Abhyuday Jindal said, "Corrosion, the biggest challenge in the sugar industry can be easily countered with stainless steel. This report reiterates the strengths of stainless steel as a low maintenance, corrosion free, easy to fabricate and hygienic metal along with longer life cycle. The study points that sugar industry will stand to benefit economically with stainless steel solutions as corrosion related losses will reduce drastically by almost 50%". As per industry estimates, losses due to corrosion in sugar industry is as high as US \$ 250 million annually in India.

Sugar industry equipments incur high maintenance cost owing to acidic nature of sugar cane juice and gaseous discharge, which increases the overall operational cost of sugar mill. This paper has revealed that sugar industry has enormous scope to reduce its corrosion and maintenance related losses by selecting the optimal stainless steel grades, which are easily available in India. The outcome of this study was inferred after meticulous examination and testing of over 300 applications where different materials are used in the sugar industry. The research was focussed on the components of the sugar industry where high abrasion, high maintenance, hygiene and life cycle were a high concern. The cost analysis using stainless steel worked out by this study was significantly economical considering life cycle analysis of stainless steel in spite of a slight initial high cost. The research paper has deduced stainless steel will keep the quality of sugar intact due its inert chemical nature. Sugar industry is one of the key drivers of rural development and partner in India's economic growth. This industry also provides sustenance to millions of farmers thus is critical and should remain financially sound.

Stainless steel by virtue of its superior hygiene and strength is a suitable metal in Cane Carrier, Juice Ducts, Crystallization units, Condensers, Syrup Tank, Cane Shredder, Donnelly Chutes, Imbibition piping and Rake Elevators.