

Energy-efficient incineration stoker

NKK Corporation of Japan is stepping up marketing activities for its Hyper 21 stoker system, an energy-efficient new generation waste incinerator that also minimises environmental loads. The new stoker utilises NKK's proprietary two-way flue gas combustion system that incorporates high-temperature air combustion technology, enabling stable combustion of municipal waste. This contributes to optimized energy efficiency and minimised toxic emissions with lower air ratio combustion. Test results have shown that the volume of exhaust gas is reduced by about 30 per cent and NOx emissions by 20 per cent, with the other toxins also showing a substantial decrease when compared with current incinerator performance.

A demonstration stoker incinerator

The incinerator also adopts water-cooled hyper grates and new refractory structures, which are expected to more than double grate service life, compared with conventional air-cooled systems. The water-cooled grate system provides very high cooling efficiency with its simple hollow-cast structure, which is expected to reduce both the stoker furnace size and overall costs. The advanced incinerator achieves an exhaust gas dioxin concentration lower than 0.01 ng-TEQ/Nm³, sufficiently meeting Japan's new regulations (below 0.1 ng-TEQ/Nm³). *Contact: NKK Corporation, 1-1-2, Marunouchi, Chiyoda-ku, Tokyo 100-8202, Japan. Tel: 81 (3) 3212 7111; Fax: 81 (3) 3214 8400.*