

Korea develops medical waste sterilisation technology for hospitals

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Medical waste treatment system capable of processing 100 kilograms of medical waste per hour



A medical waste treatment system, which is capable of 99.99 percent sterilisation by using high-temperature and high-pressure steam, has been developed for the first time in Korea.

The Korea Institute of Machinery and Materials (KIMM), an institute under the jurisdiction of the Ministry of Science and ICT, has succeeded in developing an on-site-disposal type medical waste sterilisation system that can help to resolve the problem caused by medical waste, which has become a national and social issue as the volume of medical waste continues to increase every year.

This project was launched as a basic business support programme of KIMM and was expanded into a demonstration project of Daejeon Metropolitan City. Then, in collaboration with VITALS Co., a technology transfer corporation, the medical waste treatment system was developed as a finished product capable of processing more than 100 kilograms of medical waste per hour, and was demonstrated at the Chungnam National University Hospital.

Moreover, the installation and use of this product have been approved by the Geumgang Basin Environmental Office of the Ministry of Environment. All certification-related work for the installation and operation of this product at the Chungnam National University Hospital has been completed, including the passage of an installation test for efficiency and stability conducted by the Korea Testing Laboratory.

By processing 30 percent of medical waste generated annually, hospitals can save costs worth KRW 71.8 billion. Moreover, it can significantly contribute to the ESG (environmental, social, and governance) management of hospitals by reducing the amount of incinerated waste and shortening the transportation distance of medical waste.

As the size and structure of the installation space varies for each hospital, installing a standardised commercial equipment can be a challenge. However, during the demonstration process at the Chungnam National University Hospital, the new system was developed in a way that allows the size and arrangement thereof to be easily adjusted depending on the installation site. Therefore, it can be highly advantageous in terms of on-site applicability.