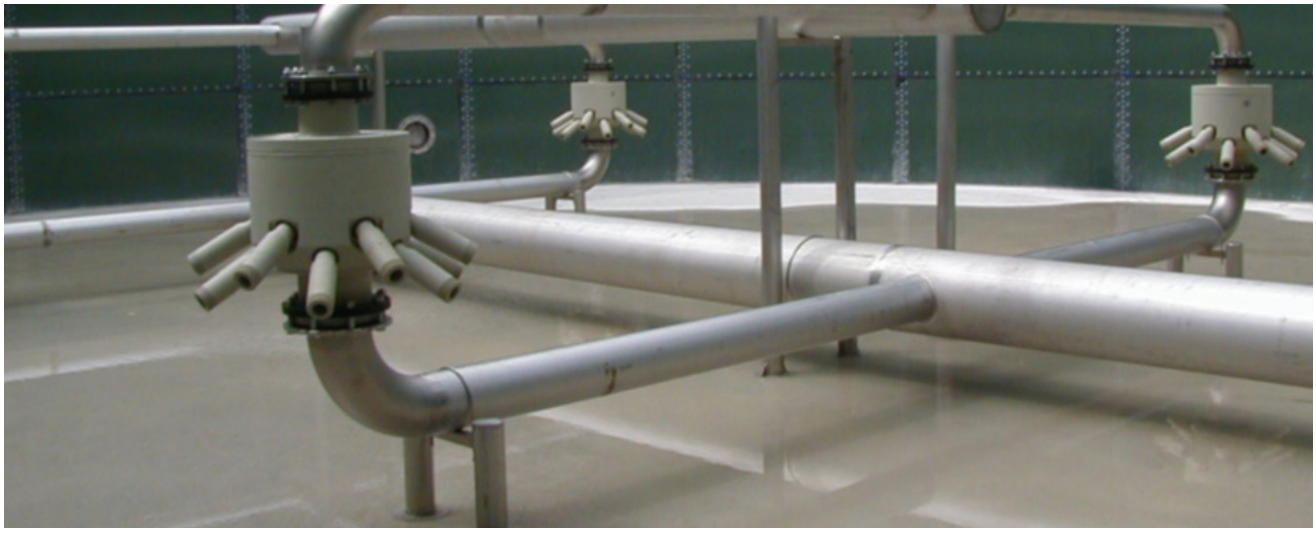
Körting Ejectors for Waste Water Aeration – a great success in China:

Highest manufacturing quality, long service life and maximum energy efficiency. Körting Ejectors for waste water aeration: In the case of heavily contaminated waste water they fulfil the highest requirements demanded by waste water cleaning for an efficient and reliable system.
The oxygen transfer and mixing system which Körting is in the process of constructing for the Hengli Petrochemical (Dalian) Ltd. Co. provides an excellent example.



On 17th. January 2011 Körting Trading (Beijing) Ltd. received an order for the aeration tank of a sewage treatment plant in China: An oxygen transfer and mixing system was to be developed which would then be responsible for oxygen transfer in a total of 8 aeration tanks. That was no problem for Körting Hannover AG, represented worldwide by numerous subsidiary companies. “The 8 aeration tanks have a total volume of approx. 127.000 cubic meters and the base area of each of these 8 aeration tanks is approx. as big as half a football field!”, as Ingo Hasenbein, graduate engineer and responsible project manager at Körting Hannover AG reported.

To assure comprehensive aeration and intermixing Körting has developed a system consisting of a total of 200 multi-jet ejectors made of highly resistant polypropylene. The installation guarantees an optimal oxygen transfer before discharge into the Yellow Sea.

“Up till now, local products were applied as an oxygen transfer system which of course could be quoted at far more favourable prices”, as Ingo Hasenbein said. However, in China the aspect of energy consumption is taken more into consideration
now since the government has demanded more observation of the aspect of energy consumption in the present 5-years plan. This has been shown, amongst other things, in the considerably expanding order situation which Körting has been able to record in the area of waste water treatment in China – particularly in the area of landfill leachate, waste water originating from the petrochemical and the paper industry.

“Our oxygen transfer systems are marked by their high manufacturing quality with corresponding long service lives and high energy efficiency”, as Ingo Hasenbein explained. “On the one hand, the investment costs for our system are higher but on the other, the customer

quickly regains this difference through energy conservation. That is the advantage."

Manufacturing of the multi-jet ejectors for the China Textile Industrial Engineering Institute took place at the end of April 2011. Commissioning thereof at the location of the final customer, Hengli Petrochemical (Dalian) Ltd. Co., has been planned for the end of 2012.
"Our customer is impressed by the work that Körting accomplishes", as the responsible project manager at Körting Trading (Beijing) Ltd. in China, Mr. Zhou Shihai reported. "Quickly, competently and with great effect/benefits."

To this Ingo Hasenbein said: "Resulting from the enormous success in China and the excellent outlook for the coming years we want to expand our activities to other growing markets amongst others, in India and Brazil."

Körting Hannover AG – Ejectors

A partial flow of waste water is discharged from the aeration tank by a pump and then supplied as motive flow to the ejectors. After the motive nozzle – in the area of he lowest pressure and highest flow velocity – the ejector is supplied with air or oxygen so that the water jet dissipates the gas volume into extremely fine bubbles and intermixes the whole intensively in the down-stream flow channel. The gas/water mixture flows into the aeration tank with great turbulence. Deposits on the tank floor are prevented, even when the waste water has a high content of dry solids.

This assures an optimal oxygen transfer and simultaneous complete intermixing of the tank contents at all times. Ejectors are practically maintenance-free. Power intake of the turbo-machines is minimised by an exact coordination of the pump/ejector combination, so achieving an optimal oxygen introduction.

At a glance

Tank volume	127.000 m³
Volume of waste water	3450 m³/h
Influent concentration BSB/CSB	3300/5500 mg/l
Discharge concentration BSB/CSB	50/50 mg/l

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