

## Erdenet Mining Corporation

Hydraulic transport of solids

Erdenet Mining Corporation (EMC or Erdenet) is one of the largest ore mining and ore processing factories in Asia. Erdenet began operations in 1978 as a Mongolian-Russian joint venture. 51% of shares are owned by the State Property Committee of the Mongolian government and 49% by the Russian government. At present Erdenet processes 25 million tons of ore per year and produces over 530,000 tons of copper concentrate and 3,000 tons of molybdenum concentrates annually.

**Location:** Erdenetiin-Ovoo,  
Mongolia

**Turnover 2006:** US\$ 696.5 million

**Main competencies:** Open pit mining  
Mineral processing  
Transportation



### Exacting requirements fulfilled

Mining is Mongolia's most important industry. In January 2007, KSB's subsidiary GIW supplied one of the largest slurry pumps ever installed in a copper mine. The extremely robust pump was built with state-of-the-art KSB technology for the Erdenet mine in order to increase production output in the medium and long term. Per hour, the horizontally installed centrifugal slurry pump is capable of handling up to 15,000 cubic metres of tailings left over from copper production.

The hydraulic components are made of highly wear-resistant white cast iron which is particularly suitable to withstand the wear caused by handling this medium. The parts have been manufactured and heat-treated at GIW's own foundry. A special software has been used to optimize pump selection for the extreme conditions of this system.





## Considerable cost reduction

The robust design of the shaft and bearings has been field tested and proven over the years resulting in long service life and high availability of the pump for the customer. The variable frequency drive controlled motor allows the pump speed to be adjusted to match the fluctuations in system parameters such as flow rate, head and slurry specific gravity. It is possible to achieve a cost saving of up to 30% with the use of such an energy efficient hydro-transport system.

The ease of replacing wear parts and the high operating reliability result in low maintenance and servicing costs.

In the past, even larger pumps of this design have been supplied for dredging applications in several land reclamation projects. The KSB product quality and service professionalism has obviously impressed the customer as several submersible borehole pumps have already been supplied to Erdenet in the past few years.

### Erdenet Mining Corporation – Scope of supply and project details

#### Scope of supply:

GIW slurry pump, gear reducer, oil cooling systems, couplings with coupling guards, baseplate for the pump and the gear reducer

#### Technical data:

GIW slurry pump  
30X34-84-N C/3ME L  
Q: 15,000 m<sup>3</sup>/h  
H: 80 m

#### Commissioned:

August 2007

#### For more information please contact:

patrik.wagner@ksb.com, Tel. +49 6233 86-2088  
www.ksb.com.