HOBAS® Jacking Pipes Premiere in Chile

HOBAS® Pipes provide Sierra Gorda Mine in the Atacama Desert with Process Water

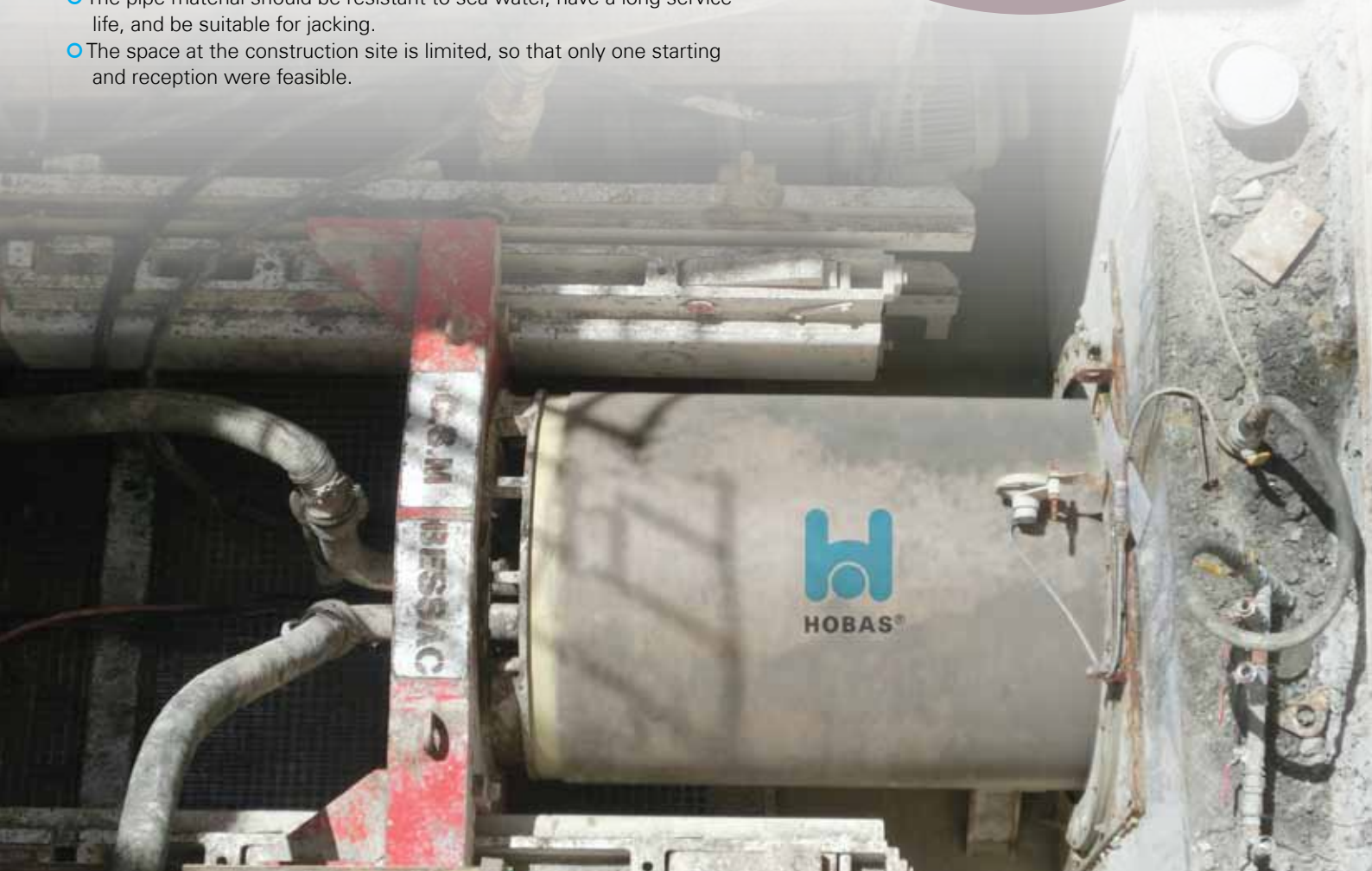
Within less than three weeks, 203 meters of HOBAS Pipe were jacked in the Antofagasta region in Chile. The line will convey seawater to the Sierra Gorda Mine for copper and molybdenum extraction.

Chile is one of the world's leading regions regarding the exploitation of natural resources. Copper mining is particularly important. In the north of the country, in the middle of the Atacama Desert, lies the little town Sierra Gorda. Here is the mine which is still under construction and operated by the Polish company KGHM and Sumitomo from Japan. Once all construction works have been completed, primarily copper and molybdenum shall be extracted by flotation. This process asks for the supply of 1.5 m³/sec of seawater. A 142-km-long pipeline shall first bring it to the thermic power plant owned by Suez Energy where it is used as cooling water. The water is subsequently pumped to the mine, 1626 meters away from the plant. A part of the line traverses the plant in 8 meters depth.

Open trench installation was not possible beneath the plant. Pressed for time, the client sought for a quick and safe solution for this section. Trenchless jacking installation presented itself as the rescue at hand. The decision makers based their choice mainly on the following requirements:

- The pipe material should be resistant to sea water, have a long service life, and be suitable for jacking.
- The space at the construction site is limited, so that only one starting and reception were feasible.

Year of construction	Application
2013 – 2014	**Process water line carrying sea water**
Construction time	Client
3 weeks	**Minera Sierra Gorda (KGHM International Ltd. und Sumitomo)**
Total length of pipe	Contractor
203 m	**Bessac/Soletanche Bachy Chile**
Diameter	Benefits
D_e 1099	**little construction space, little excavation material, fast and simple installation**
Pressure class	
PN 1	
Stiffness class	
SN 100000	



- Microtunneling through sandy desert soil with an AVN 800 jacking machine.
- Longtime, extensive experience in pipe jacking was a must.
- Delays should be kept to a minimum and no obstacles were expected in 8 meters depth.

At the end of August 2013, HOBAS was commissioned together with their local partner Buildtek. HOBAS delivered a total of 203 m of jacking pipes D_e 1099, SN 100000, PN 1. With a wall thickness of 51 mm the jacking pipes were designed for a maximum jacking load of 3,348 kN – perfectly suitable for the installation beneath the power plant. The installation per se was conducted by the French company Bessac/Soletanche Bachy Chile.

Apart from pipes, HOBAS also delivered 86°-bends, couplings, and reducers to connect the pipeline to the system. The construction works were completed within 3 weeks only and to the complete satisfaction of all parties involved. The client very much appreciated the professional project handling and the timely deliveries and was more than happy with the HOBAS Products and their fast and simple installation. Thanks to the perfect cooperation of Soletanche Bachy/Bessac, HOBAS, and Buildtek nothing stands in the way of starting up the mine very soon.

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