MAGNITOGORSK, THE CITY BORN FROM IRON MINE





WHERE:

Magnitogorsk is a big industrial city in Chelyabinsk Oblast, Russia, located on the eastern side of the extreme southern extent of the Ural Mountains, by the Ural River. It was named after the Magnitnaya Mountain, a geological anomaly that once consisted almost completely of iron ore. The official motto of the city is "The place where Europe and Asia meet", as the city occupies land between the two continents.



WHEN: April 2017

CUSTOMER: Building manager



THE REQUEST:

In Magnitogorsk, the districts design is methodical: regular squares are crossed by right angle streets, big residential buildings are one by one alternated with green areas. The overall look of the city gives a feeling of relax and order, masking the heavy industrial origin of the town. Today more than 400 thousand people is living in Magnitogorsk.

It's common to find here 10 storeys residential building, exactly as the one commissioned by DAB Pumps. Here, water supply to the higher apartments is always an issue, as the pressure provided by the main water line is not enough. A booster set is often required.

The customer chose 3 x KV 10/6 T/N with VFD Active Driver Plus.

KV 10/6 is an efficient multistage vertical pump: in this case, 10 m3/h is the water flow of any single pump in the medium working condition, 6 is the number of impellers seated on the shaft. Having more than one impeller is the condition to reach higher pressure. On the other hand, for reaching higher flow, three pumps were working in parallel in the same booster set, each of them providing 33% of the maximum duty.

The management of the operation is demanded to the VFDs, that are alternating the start and stop of the pumps at partial request. This allows constant pressure, then energy saving and better comfort to users. Active Driver Plus is the best choice in residential buildings, because it's a sensor integrated device easy to install. The installer was surprised by the small size of the booster set and easiness of setup for frequency drive Active Driver Plus. The pressure set worked with no problems from the very first start.



