

CASE

STUDY

Zapadnaya, Moscow
Submersible motor pump set



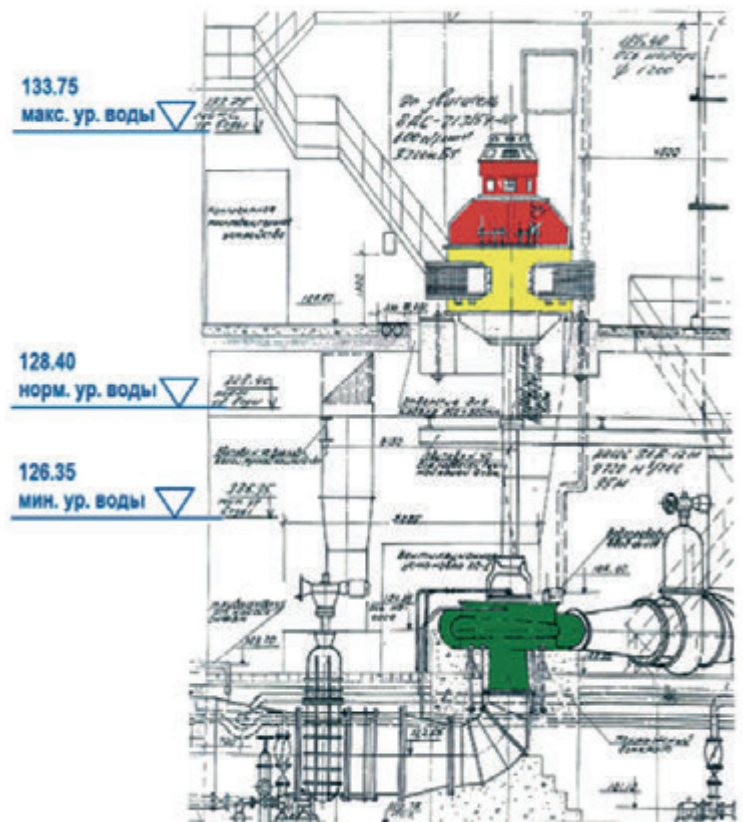
In the current climate context floods are becoming more frequent, and urban areas suffer the consequences of these unexpected and sometimes unpredictable events. To face this scenario, it is important to have reliable compact solutions that keep running even during flooding events.

Submersible solutions, by nature, wet pit or dry pit are the suitable solution to meet the new needs.

One example of **Indar** leadership in the pumping station retrofit with submersible motor pump sets is the first lift for the **Zapadnaya** Water treatment plant. Operated by Mosvodokanal^(*) this Pumping Station takes Water from the Moscow river from the depth of 5 meters and transports water to the **Zapadnaya** Water Treatment for Further Purification and urban Water Supply.

First lift pumping station of **Zapadnaya** water supply plant before modernization. Motors of pumps 36B-12M located below maximum possible water level of water reservoir.

Zapadnaya Pumping Station was built in 1964 and nowadays it provides the water supply to 36 Moscow districts and few towns in Moscow region.



(*) The joint-stock company Mosvodokanal is the largest water company in Russia, providing water supply and water disposal in the Moscow region.

The average capacity is 1,2 Millions of m³ / day (115,784 MGD) - that's 37% of the total amount water consumption of Moscow.

Designed capacity 1,7 Millions of m³ / day (164,027 MGD) for the **Zapadnaya** station will also supply water to «New Moscow» - a new living area on the South of Moscow.

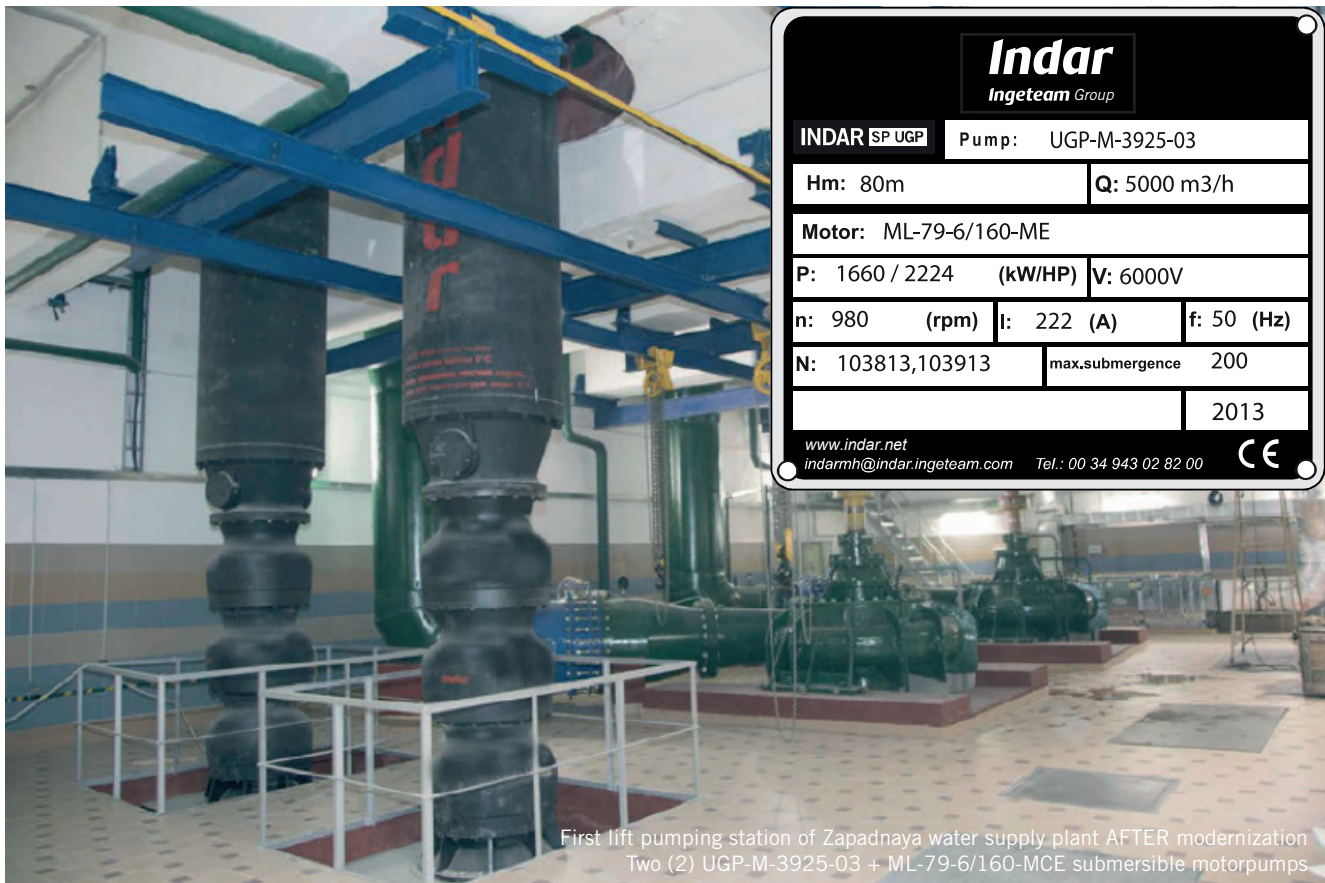
Complete reconstruction of this pumping station took 1,5 years and included replacement of the pumping equipment, technological equipment and installation automation.

Now there are in total 7 pumps operating: 2 Indar pumps 1660 kW each (submersible) + and 5 vertical volute casing pumps.

Now even a flooding of this pumping station, the Indar submersible pumps keep running maintaining and assuring the water supply process.

In addition, what's also very important – the energy savings / year related with the submersible solutions and Indar efficient motor pump sets. The total energy consumption in the whole station due to the modernization has decreased from an average of 665 to 600 kWh per 1000 m³ of water supplied. This provided annual energy savings of 10.8 million kWh, which is equal to 30 million rubles (approx. 500 000 Euros).

The owner, Mosvodokanal, can say that Indar high level engineering ideas and our customized design helped to reach Mosvodokanal main purpose of modernization program: **Making pumping station reliable and efficient.**



www.indar.net
water@ingeteam.com

HYDRAULIC INSTITUTE
PROUD MEMBER

Indar
Ingeteam Group