

# EGYPT, THE LARGEST MOSQUE OF THE WORLD (AFTER MECCA)



## WHERE:

The “Cairo New Capital” is a massive project about building a new administrative and financial centre 60 km east of Cairo city. This new capital is going to be completed in few years, it will have a population of 5 million people, it is a “smart city” (IoT connected management devices to enhance efficiency), with the new parliament house and many hotels, parks, hospitals, skyscrapers, and more than 1000 mosques. In January 2019, President Abdel Fattah al-Sisi inaugurated here the Al Fattah Al Alim grand-mosque, only second in size to Great Mosque of Mecca in Saudi Arabia.



WHEN: January 2019

SALES AGENT: Watania For Advanced Systems

CONTRACTOR: Eng. Mohsen Salah – CEO of the  
Arab Contractors Company



## THE REQUEST

The Al Fatah Al Aleem Mosque, inaugurated on 8 of January 2019, is considered the jewel of the modern Islamic architecture and the most prominent building in the New Administrative Capital of Egypt. It is the second largest mosque in the world: 450.000 m<sup>2</sup> covered surface (35% of it for gardens, 10% for connecting roads, 15% for car parking), 17.000 persons capacity (basement praying area + outdoor prayer space), 21 domes (the main one is 44 meters high and 33 meters diameter), 4 Fatimid style minarets (95 meters high).

The mosque complex includes different facilities, as a conference room, a library, two Qur'an memorization houses for young students, one "madrasa", administrative offices, the electricity generation chamber and technical control rooms, several stores, a medical care unit, 2 ablution zones for men and 2 for women, with a total of 94 toilets, and a water tank with 3500 m<sup>3</sup> capacity.

In this magnificent project, started on June 2017 and ultimate in 18 months only, DAB Pumps was called to provide a high capacity booster set for clean potable water, with duty point 120 m<sup>3</sup>/h @ 50 meters head. The choice was easy: one group of 4 x NKVE, with normalised vertical multistage pumps (15 Hp each) driven by variable speed inverter MCE-P.

The pump is robust and reliable, the best of its kind, with stainless steel impellers and diffuser, cataphoresis-treated cast iron supports, IE3 electric motor, standardised junction, easy-maintenance SiC-Carbon mechanical seal. The variable frequency driver MCE-P is mounted and configured by factory assembly, to ease the commissioning and guarantee working optimisation. The VFD protects the motor and extends its life, it maintains constant pressure on the delivery pipeline, it allows huge energy-saving during partial load operation (very common when pumps supply water to many toilets, as in this case).

The group of pumps, thanks to electronic control by the MCE-P inverter, can automatically manage duty-standby cycles and rotation of operative pumps: this function equally distributes the working hours among the four pumps involved, avoiding the risk of overstress or too long inactivity.

The contractor Mr. Mohsen Salah – Chairman and CEO of the Arab Contractors Company – attended the inauguration ceremony of the Al Fatah Al Aleem Mosque, and he took part to the acceptance speech: he thanked all the technology partner who took part in the project, providing advanced and efficient equipment. DAB Pumps thanks Watania for Advanced Systems, for proposing DAB products in such a majestic project.

4 x NKVE 45/3 MCE T

