

Flowserve

Validating the performance of a turbine pump

Flowserve has designed and manufactured a turbine pump intended for use at a Suez group water pumping site. Cetim performed tests to verify the performance of this equipment.



©Flowserve

OUR CUSTOMER

Corporate name
Flowserve

Activity
Flowserve designs and manufactures pumps, valves and joints and comprehensive automation solutions and associated services for all industries. The French plant at Arnage (dept. 72) manufactures centrifugal pumps from 2 kW to 5 MW, able to handle flows of 5 - 30,000 m³/h.

Turnover
Approximately 4 billion dollars

Workforce
18,000 employees in 55 countries

At Arnage (Sarthe), Flowserve can access the largest plant in mainland France dedicated to producing pumps for all types of industries. Not only can the firm boast exhaustive expertise in pump technology, Flowserve is also present on the turbine pump market, operating in pump or electrical generator mode. *«Turbine pumps offer an alternative to turbines. They are more cost effective and therefore more profitable, however, they are only suitable for some types of site, and particularly need an adequate waterfall height»* explained Alice Dubois, manager of

the Flowserve New industrial pumps service. A water pumping station in use in Southern France has the ideal conditions. On this basis, Flowserve designed and manufactured the appropriate pump turbine before checking that the 75 kW equipment met specifications.

Ready for use

Cetim was entrusted with assessing the performance of the equipment, and adapted its test unit to integrate energy recovery and power measuring facilities. *«We can access seven test platforms at our Arnage plant. We mainly use these platforms*

to test pumps. It would have proved slightly more complicated to reconfigure these facilities to test a turbine pump with a complex operational set-up. To save time, we decided to entrust this operation to Cetim with whom we have worked in partnership for many years and who hold the necessary expertise and technical resources» explained Alice Dubois. The results of the tests, carried out in the presence of a Suez representative, were totally conclusive after less than one day. The turbine pump displays the expected behavior and performances for the service.

Cetim's asset

A test platform for turbines up to 500 kW with a drop of 500 m and/or a flow of 4000 m³/h, creating the right flow and drop conditions for the application, with energy measurement and recovery options.

