

BEVERON

MIXED FLOW PUMP

Based on many years of experience Bosman Watermanagement has developed a unique fish-friendly pump called the Beveron.

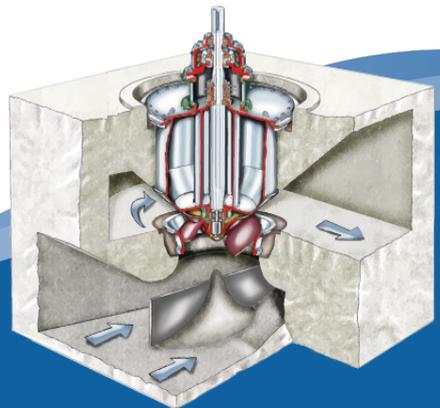
The Beveron is a revolutionary mixed flow concrete colute pump with impressive performances and hardly any noise.

The Beveron is suitable for new constructions as well as renovations of pumping stations and is available in a series of 29 standard modules covering a range of filtration speeds from 3 to 30m³/s.

The Beveron achieves a high level of hydraulic efficiency due to perfectly matched components and its design ensures flow losses to be reduced to an absolute minimum. Moreover, Bosman Watermanagement has designed a unique suction chamber specifically for this pump that minimizes the required submersion depth.

FEATURES

- Broad performance range
- High efficiency and good cavitation features
- Compact design
- Broad performance range
- Very low noise profile





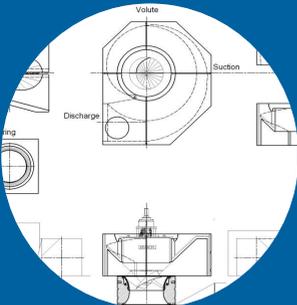
HYDRAULIC DESIGN

The hydraulic design of the Beveron pump was achieved through intensive cooperation between the research department of Bosman Watermanagement and the Technische Universiteit Eindhoven. In close collaboration, the design of the volute and suction chamber was completed, making frequent use of computerised flow simulations.



SCALE MODEL TESTS

Bosman Watermanagement conducted scale model tests in-house. This entailed real-world testing of the theoretical design, and exploring all relevant characteristics of this new type of pump. The tests were conducted in a closed test rig specially built for this purpose. A unique feature of the test set-up is that it includes all the elements of the hydraulic design, including suction box and volute.



PREFABRICATED CONCRETE VOLUTE

The casting process for the concrete volute and suction box has been carefully analysed by numerical simulations. Both strength analyses and transient temperature distributions during casting were established.