

Prefabricated Pump Stations Manufactured by:



&



Ganz HYDRO Kft.

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Ganz HYDRO Kft. was established in 1993 in Budapest, Hungary.

The founders, Adam Vass executive engineer on behalf of Ganz Works S.A., Budapest, and Finagri S.A. (Alain Guibert & Elie Desrues) Sophia Antipolis, France created this French Hungarian joint venture named Ganz HYDRO Kft, to develop the production of pumping systems , ornamental fountains and contracting turf irrigation systems with Toro products for the central European market.

In 2001 Adam Vass acquired all shares of the french partner Finagri S.A.



With the growing demand in Hungary and abroad, of large pumping stations and associated equipment for decorative municipal fountains, Ganz HYDRO Kft developed its industrial capacity in engineering and production.

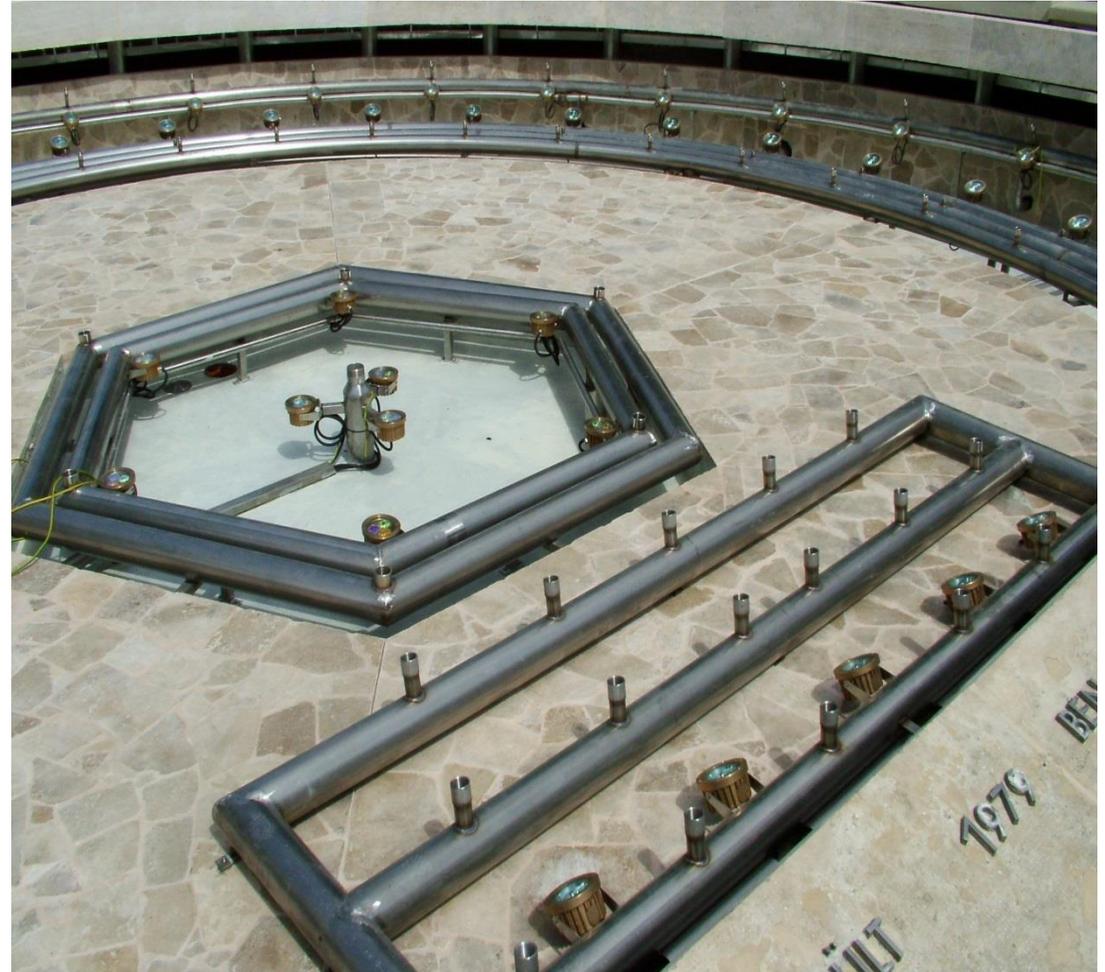
Pump Room; Szeged ELI Fountain -Hungary

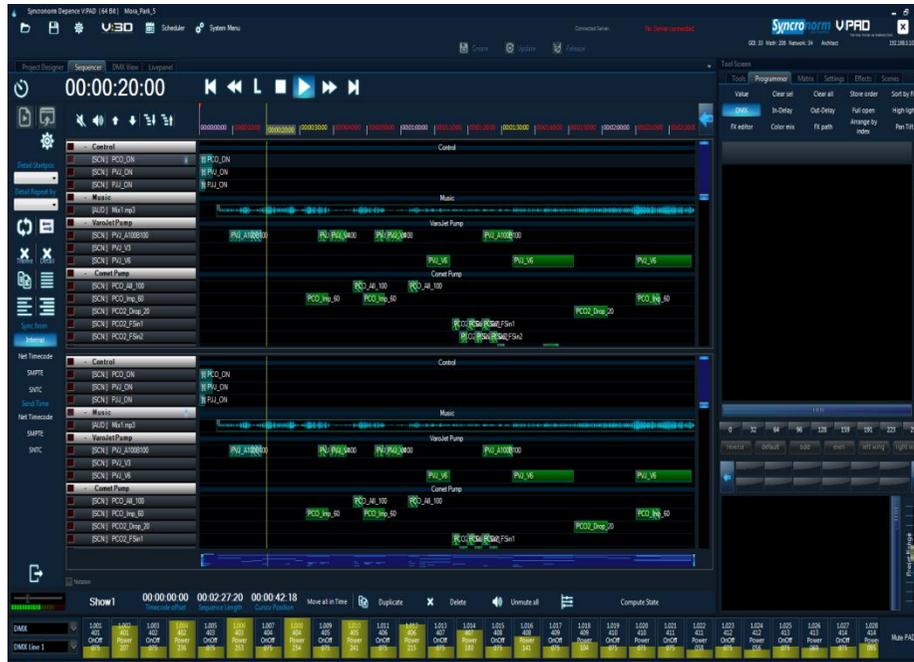


Pump Room; Vidauban Golf Course-France



The Company operates its own specialized stainless steel workshop, using argon gas-shielded welding technology. The Company has its own integrated electric workshop for engineering and assembly of complete control panels for fountains and pump stations.





The Company developed its own skill for the control and programming of sophisticated water effects that include advanced firmware programming of variable frequency driven pumps, mechanically actuated or pressurized air driven nozzles, RGB light shows, all synchronized by music.

Margaret Island Fountain, Budapest;
Hungary

Basin area : 1.000 m² .
Built-in nozzles : 154 pcs.
RGB Led Lamps: 227 pcs.

The fountain plays musical shows
several times a day.



The Company has its own construction team operating in Hungary and abroad for the installation of golf pump stations and ornamental fountains.

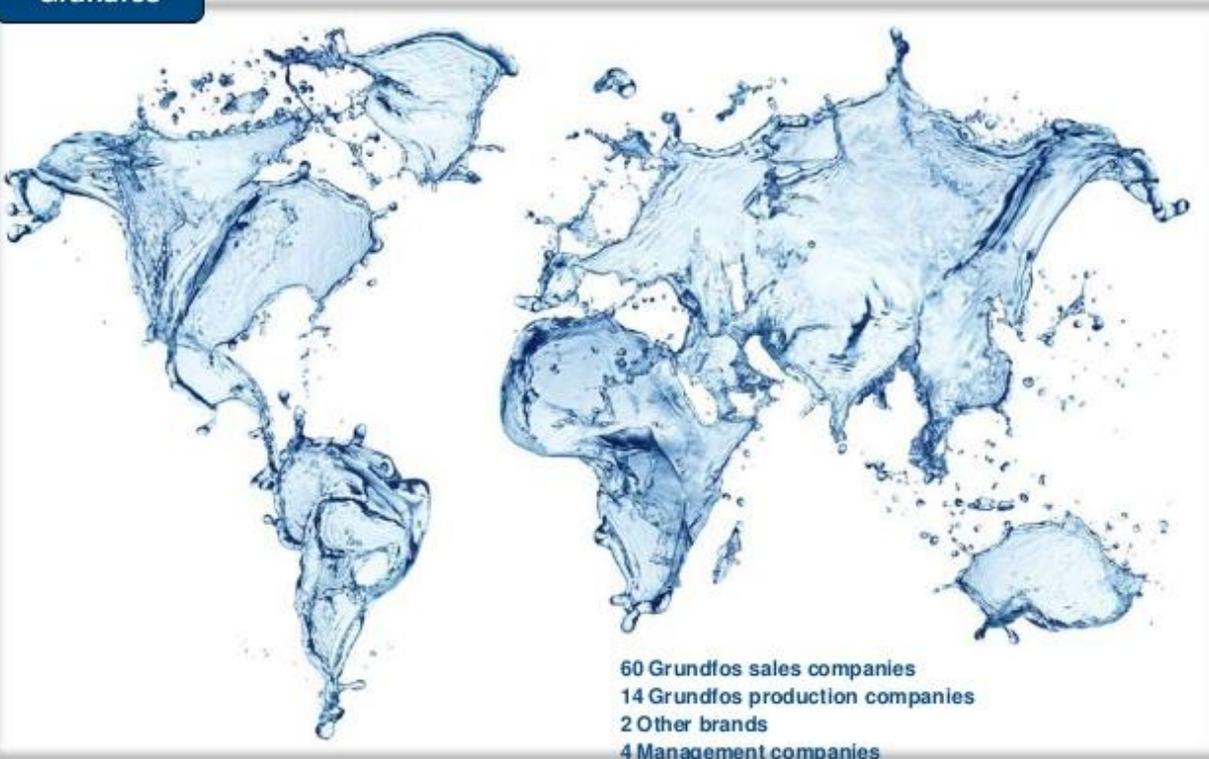
Our service range from full turnkey packages to on site support of irrigation contractors and golf operators via maintenance agreements.



Backed by over 20 years of experience in the pump industry, the Company has diversified its offer with the production of custom design Grundfos pre-fabricated pump stations complying with the needs of golf irrigation systems, and compatible with Toro golf control systems .

Our goal through the partnership with Grundfos is to provide energy efficient and reliable golf pumping systems backed by the worldwide network of Grundfos.

Grundfos



- 60 Grundfos sales companies
- 14 Grundfos production companies
- 2 Other brands
- 4 Management companies
- 5 New Business companies

A total of 80 companies in 56 countries.

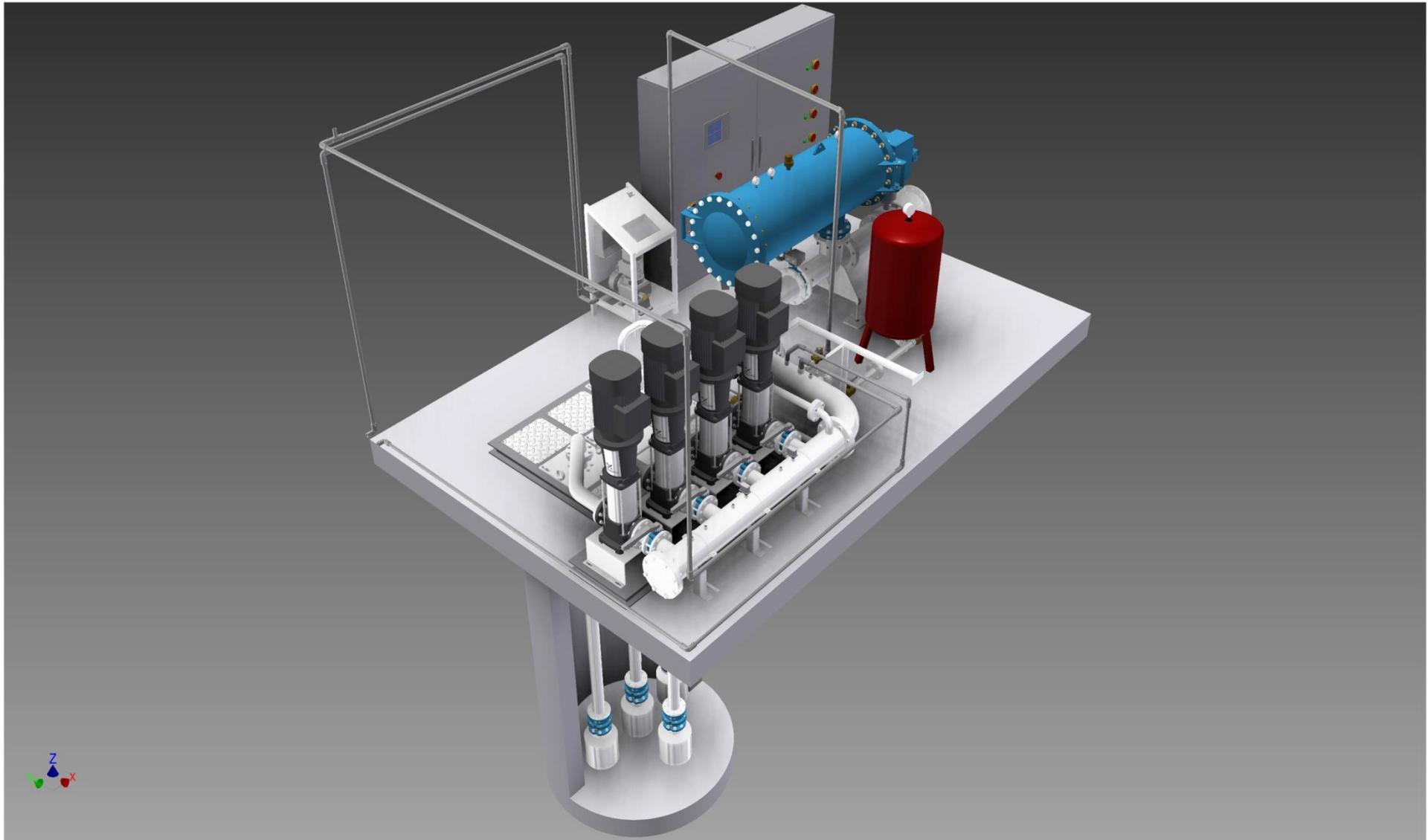
be think innovate

GRUNDFOS

Along with the pre-fab pump stations, we also offer reliable and efficient filtration systems and turf nutrient liquid injection systems. Our commitment is to provide full pumping solutions for the efficient use of a golf irrigation system that provides healthy turf with minimal use of water, energy and chemicals.

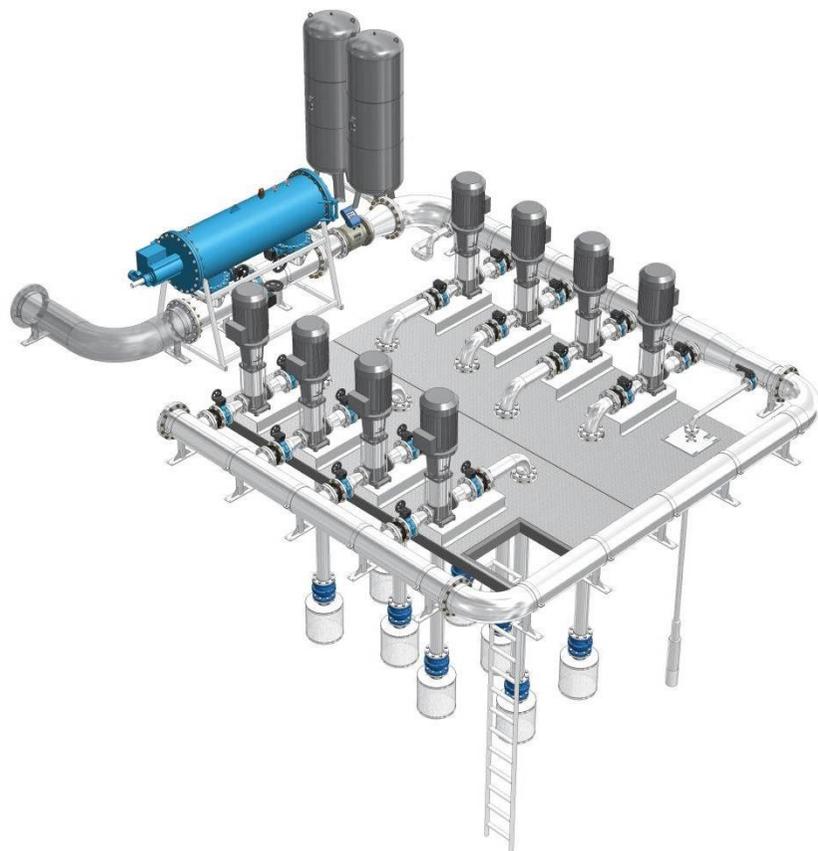
Pump Room; Golf National –Guyancourt, France





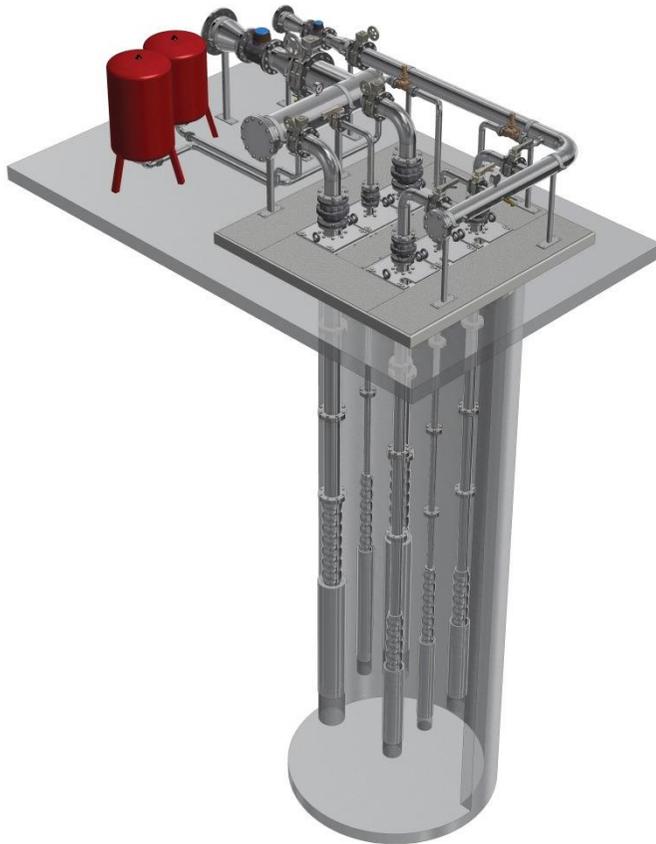
Version CR Capacity from 60 to 800 m³/h

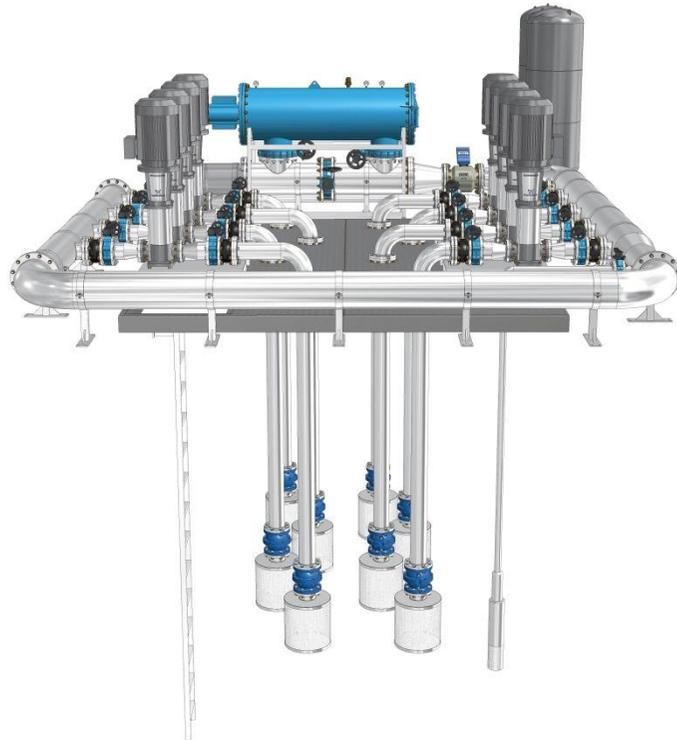
Grundfos CR series vertical multi stage pumps



Version SP Capacity from 60 to 800 m³/h

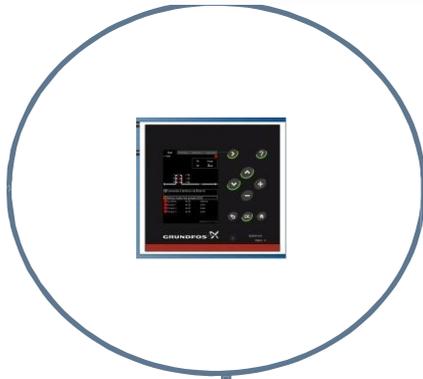
Grundfos SP series submersible multi stage pumps





Toro and Grundfos leaders of the golf irrigation and pumping industry, united their know-how for offering durable and satisfactory solutions to customers. The operators will appreciate the economy of time, and other advantages offered by these systems developed to work together.

The performance and technical characteristics of the prefabricated GH - Grundfos Hydro MPC-EFG pump stations are entirely adapted to the needs of the automatic irrigation installations, due to the vast range of pumped volume (60 to 800 M3/h) and available pressures (0 to 16 Bars) and due to solutions reducing electric energy consumption. The efficient and durable, nongradual control of the pumps equipped with variable frequency drives reduces the operating costs including electric bills, and extends the life expectancy of the irrigation system components.



Grundfos CU 352 Electronic Control Unit:

The CU 352 Control Unit is able to visualise, on its backlit colour LCD display all the operating parameters of the pump station. A log is being kept of all incidents and alarms during operation. The actual status of the pumps, the pressure and flow data are also indicated.

The telesurvey of the GH - Grundfos Hydro MPC-EFG pump station is assured by the LYNX irrigation control device, due to the GENIbus/CIU200 linking.

This survey module indicates the status of the pumps, and the actual pressure and flow in the discharge manifold on the LYNX screen. This function offers comfort and security of operation and submits the heart of the irrigation installation - the pump station - under direct supervision of the irrigation system users. The "re-flow" system synchronizes the number of active sprinklers with the real capacity of the pump station





Reduction of current consumption (and of electric bill)

The Ganz HYDRO - Grundfos Hydro MPC EFG pump stations benefit from the latest technical advantages on the field of energy efficiency.

The combination of high-efficiency Grundfos (MG) electric motors with Grundfos CUE frequency drives optimizes the consumed energy and overfulfills the EuP IE3 Directive on the electric consumption of electric pumps.

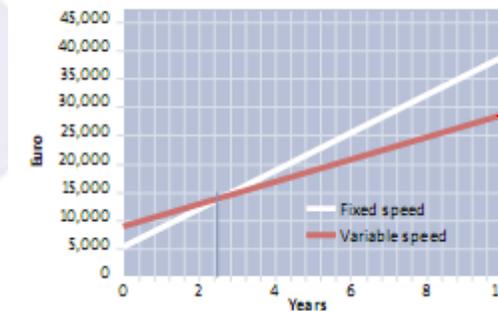
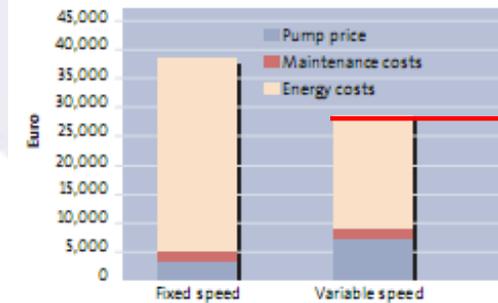
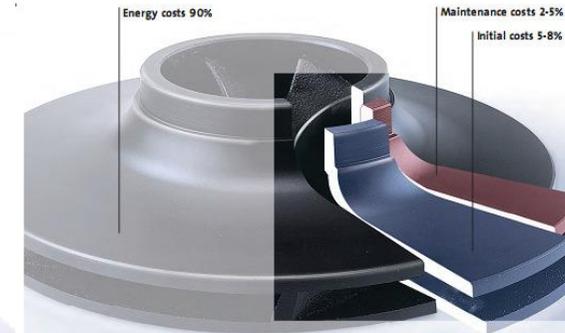




Over the years, cumulated energy consumption represents the principal expense factor of possession and operation:
 Initial investment: 5 to 8%
 Maintenance: 2 to 5%
 Electric energy: 90%

The GH - Grundfos Hydro MPC EFG pump stations with pumps of variable speed noticeably reduce the cumulated electric consumption compared to pumps of fixed speed.

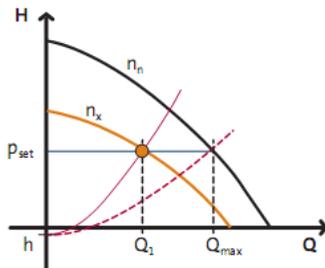
The initial extra cost represented by variable speed drives installed for all of the pumps, returns rapidly (in 3 to 5 years).





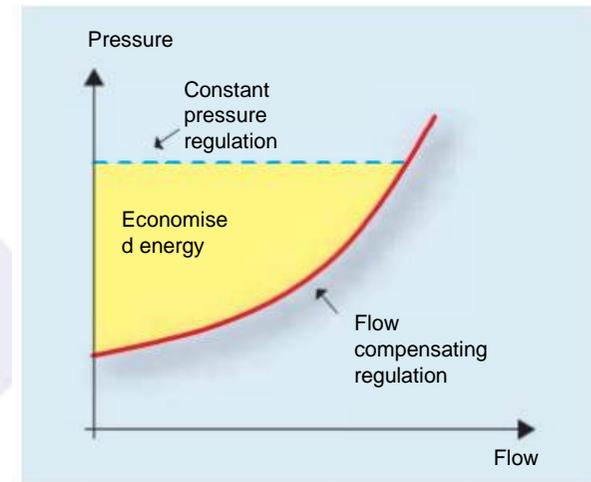
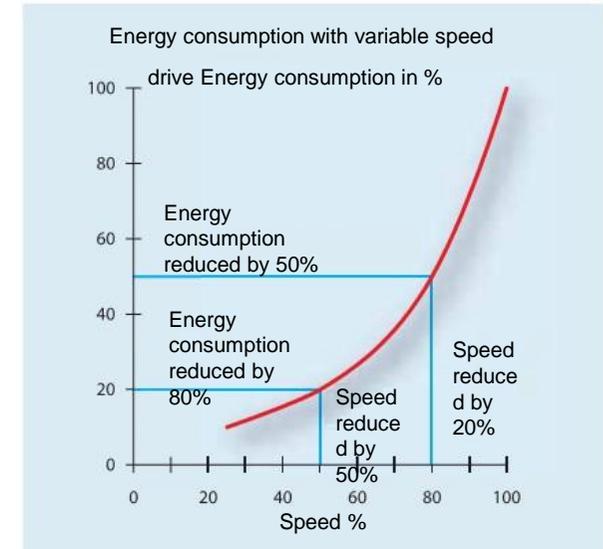
The CUE variable speed drives allow to adapt the rotational speed of every pump in order to deliver a constant pressure whatever the flow demand should be.

The energy consumption of an electric pump varies with the third power of its rotating speed. Even a minimal reduction of speed results in immediate energy saving.



The flow compensating function of the CU 352 automatically reduces the pressure delivered by the pump station in light of the reduced pressure loss in the irrigation system when the flow demand is decreasing.

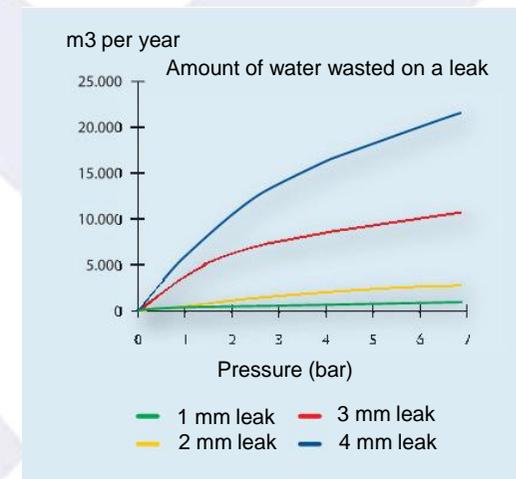
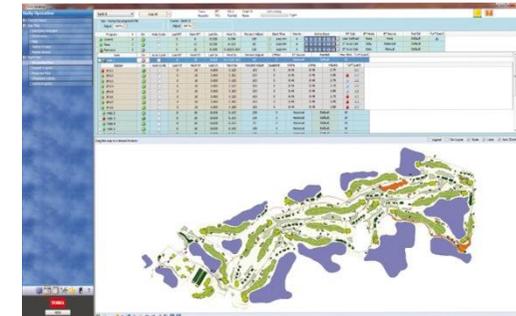
This function directly economises energy consumption.



By surveying with the golfware Lynx of Toro, the pressure delivered by the pump station is reduced when outside of the irrigation window.

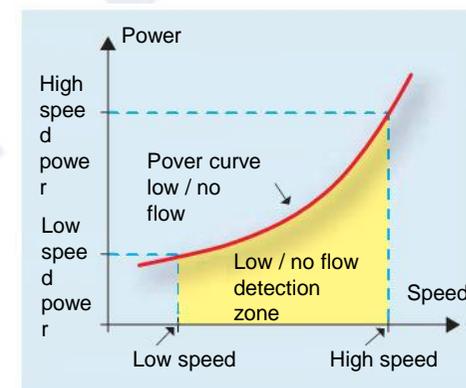
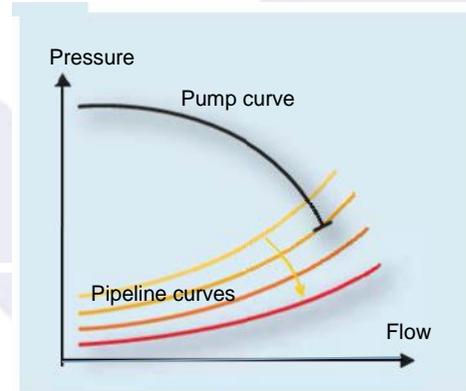
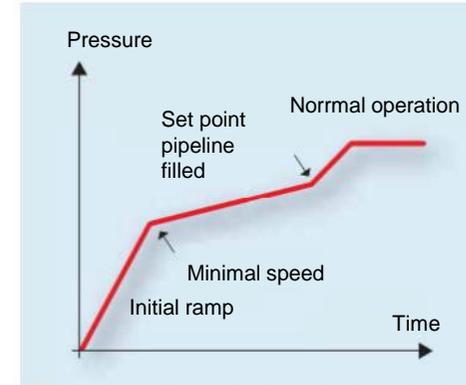
This function also directly economises energy consumption.

Additionally this pressure reduction takes a direct effect on water consumption too, since the amount of water wasted on a potential leak is proportional to the pressure in the system.



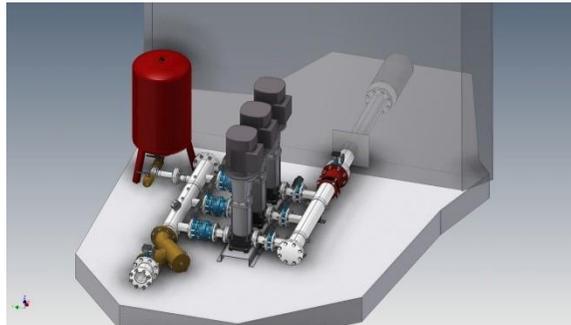
Additional savings in operational costs due to the security functions incorporated in the Grundfos CU352 control unit in order to protect the pumps and the irrigation system:

- Soft pressure build up in the irrigation system:: This filling mode helps to avoid water hammer effects, burst of pipelines and fatigue of sprinklers.
- Detection of overflow and pumps outside duty range:: When the pump station works at full speed, but without attaining the desired pressure, the control unit supposes a leak in the pipeline and progressively stops the pumps.
- Detection of an unprimed pump:: The variable frequency drive CUE VLT AquaDrive constantly surveys the status of the connected pump by frequency and absorbed power measurements. If an unprimed situation is indicated by the conflict of these measured values, the control unit stops the concerned pump.

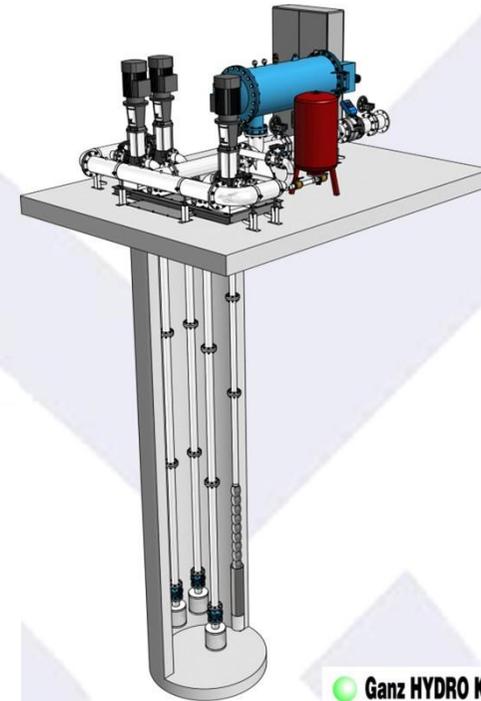
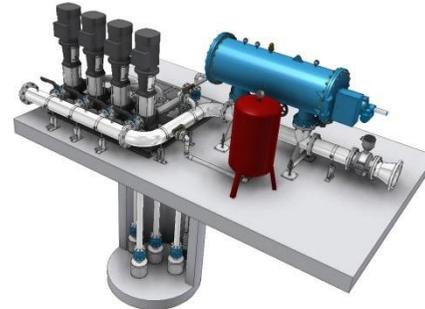


Various executions of our pump stations

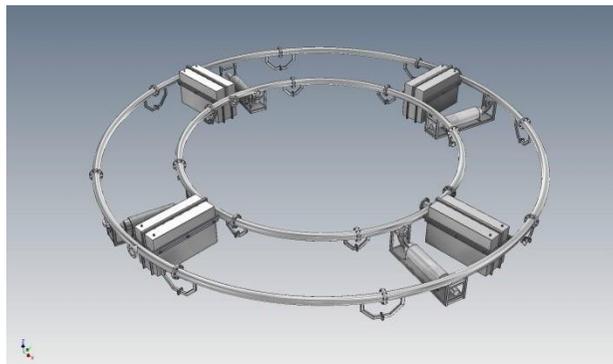
Under charge from a tank



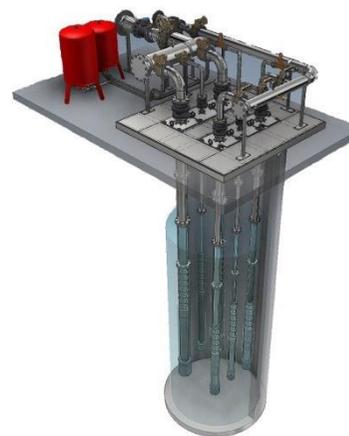
Suction from basin



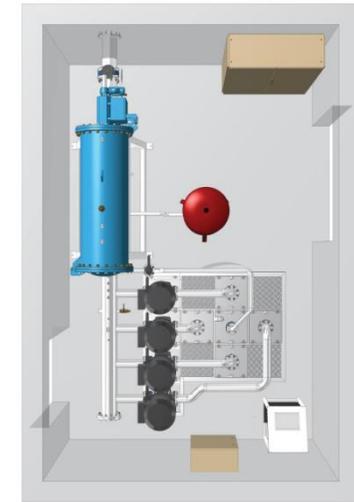
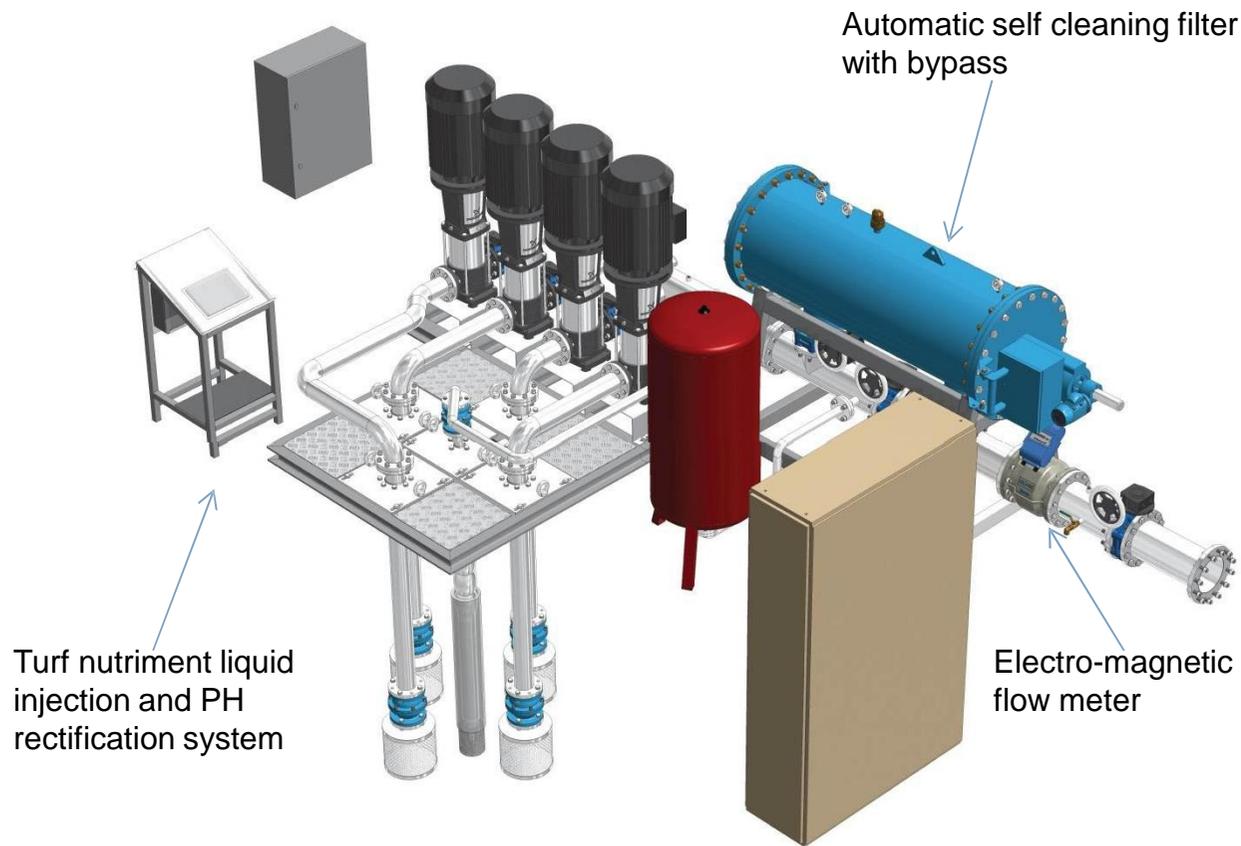
Floating on reservoir



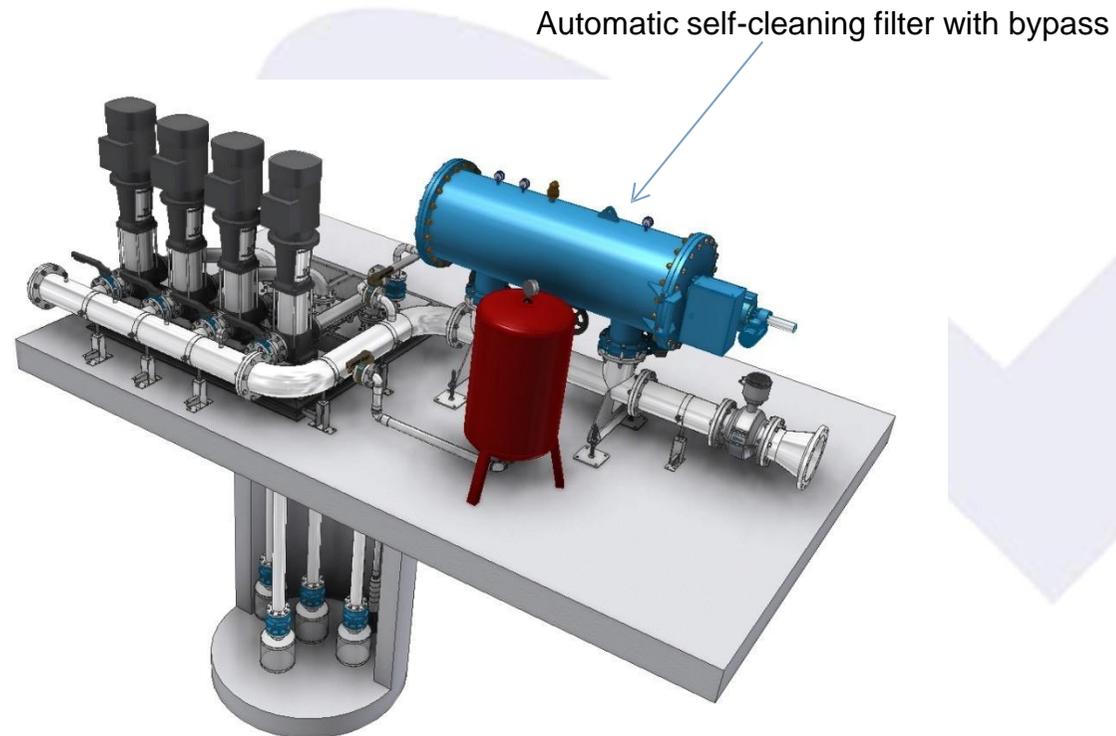
Deep suction from basin



Additional equipment for our pump stations



Our pump stations are prepared to receive an automatic self cleaning filter and a turf nutrient liquid injection and PH rectification system.



Description of the automatic screen filter:

The operation of the FMA 2000 filter is based on the technology of backwashing suction-heads moved on helicoidal course by an electric motor. It combines efficient filtration with low water consumption. The filter is equipped with a bypass with a set of isolating valves, and a control unit automatically piloting the cleaning cycle via a differential pressure transducer and/or a programmable clockwork.

Fineness of filtration possible from 10 to 2000 microns.

Inlet/outlet diameter from 3" to 14" (80 to 350mm)

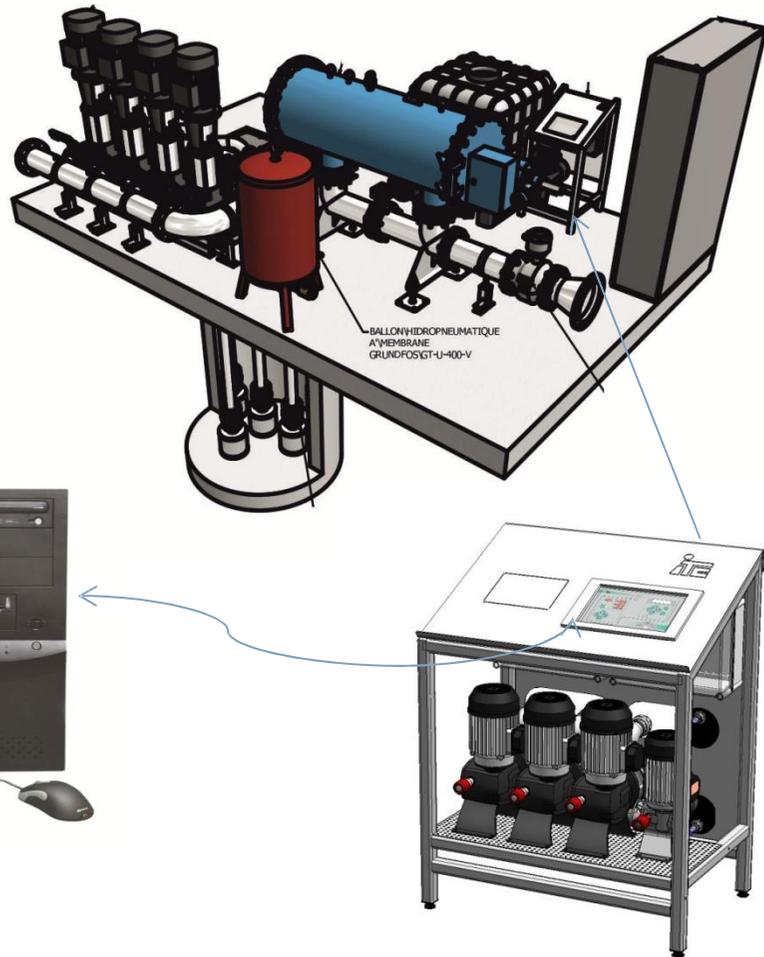
Nominal Pressure: 10 bars (Optionally: 16 and 25 bars)

Filtering elements made of stainless steel.

Housing made of epoxy coated carbon steel or optionally of stainless steel.



Turf Nutriment Liquid Injection and PH rectification System



SCADA SOFTWARE FOR INJECTION CONTROL

