

SYSTEMS FOR PUMPING AND IRRIGATION



Nettuno Hydro

And other solutions
for irrigation systems

IRRIGATION &
ENERGY



www.nettuno-irrigazione.com







PUMPING SOLUTIONS FOR LINEAR and PIVOT SYSTEMS

In the last few years, Nettuno® (VISA S.p.A. water division), thanks to its more than 40 years of experience in the irrigation sector, has developed pumping solutions for the increasingly widespread LINEAR and PIVOT irrigation systems.

40 years
of reliability and
experience

The many factors, such as water availability, the morphology and slope of the soil, the climate, the source of water supply and the type of crop have become a challenge when it comes to choosing the best system. Nettuno® has developed a series of products that work in perfect harmony, integrating with any type of irrigation system and ensuring maximum effectiveness and efficiency.

We ensure the best solution for the power supply of your irrigation system with:

- MOTOR PUMPS FOR LINEAR SYSTEMS;
- MOBILE OR STATIONARY MOTOR PUMPS DOWNSTREAM OF THE PLANT;
- SURFACE ELECTRIC PUMPS;
- VERTICAL PUMPS;
- GENERATING SETS

MOTOR PUMPS FOR LINEAR AND PIVOT SYSTEMS

Linear systems require a pumping system for the operation of sprinklers and electric power supply for handling the entire structure.

This is why **Hydro** was created, a Hybrid motor pump by Nettuno, equipped with a Diesel engine coupled to a centrifugal pump, as well as an alternator with drive belt, ensuring high resistance and low noise levels.

In order to adapt to any type of system, **Hydro** is available in three versions

Hydro CL:

This configuration involves the insertion of a clutch between the Diesel engine and the centrifugal pump.

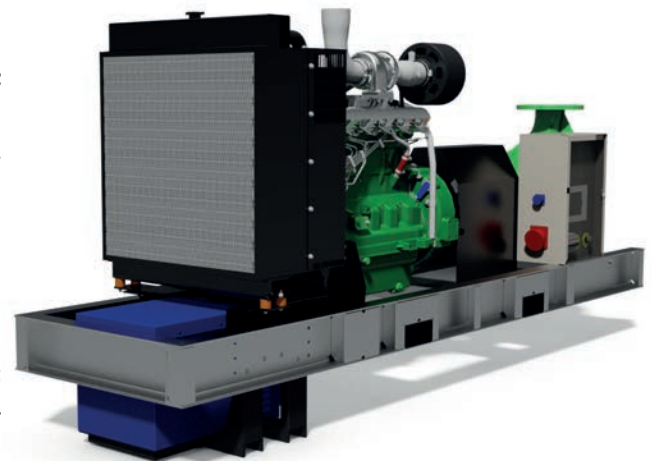
The **clutch** is the key element, since it allows the irrigation cycle to be interrupted in "crossover" areas that do not require irrigation or that require it in smaller quantities.

The **centrifugal pump** is connected to the clutch via a flexible joint and is equipped with interchangeable plugs.

The **alternator** is activated by a synchronous belt system that ensures maximum control over speed control and prevents slipping.

The traction system is enclosed by a sump that protects it against humidity and dirt and is easily removable for maintenance activities.

The **baseframe** is extra-strong and can be equipped with an anti-corrosion treatment or, upon request, with a hot-dip galvanising treatment.





Ultra-compact silencer

Diesel engine

Start/stop lever irrigation cycle

Control and monitoring unit of engine parameters, pump alternator and alarm management

Radiator

Clutch

Electrical panel with IP65 protection

4x Hooks for lifting using ropes or chains

Lifting pockets for easy and safe handling

Alternator + Sump for protection against humidity and dirt

Socket kit 63A three-phase 16A single-phase

Centrifugal pump

Nettuno® uses top quality pumps for its machines, selected among the best suppliers in the industry. On request, Nettuno® technicians can recommend the correct size and the pump that best suits customer needs.

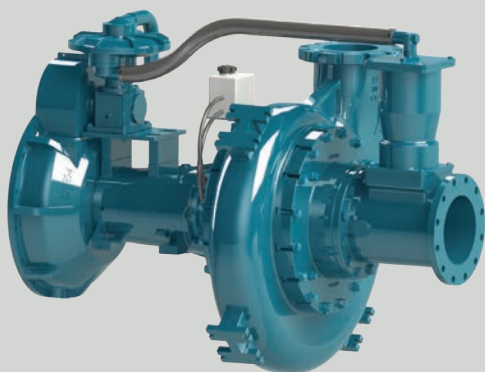
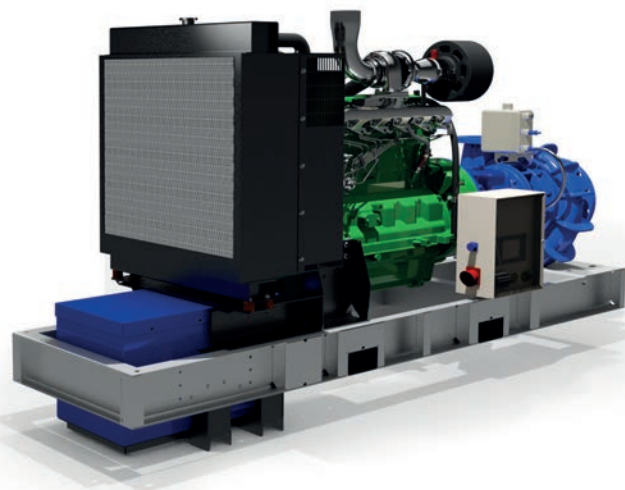


Hydro RD

This configuration provides for direct coupling between the Diesel engine and a special pump: the **Cornell® Run-Dry™**.

It is a pump designed to have the option to also run dry for short periods of time, protecting the mechanical parts from damage caused by dry running.

In fact, unlike conventional centrifugal pumps, this pump has a construction system that is capable of functioning also without the presence of water inside the impeller, thanks to an oversize cooling circuit and to an additional lubrication circuit that makes the movement of the mobile parts more fluid.



Cornell® Run-Dry™ FEATURES:

- Seal protection
- Seal cooling
- Easily-checked lubricant reservoir
- Peace of mind if pump runs dry



CORNELL RUN-DRY™

Fluid Reservoir

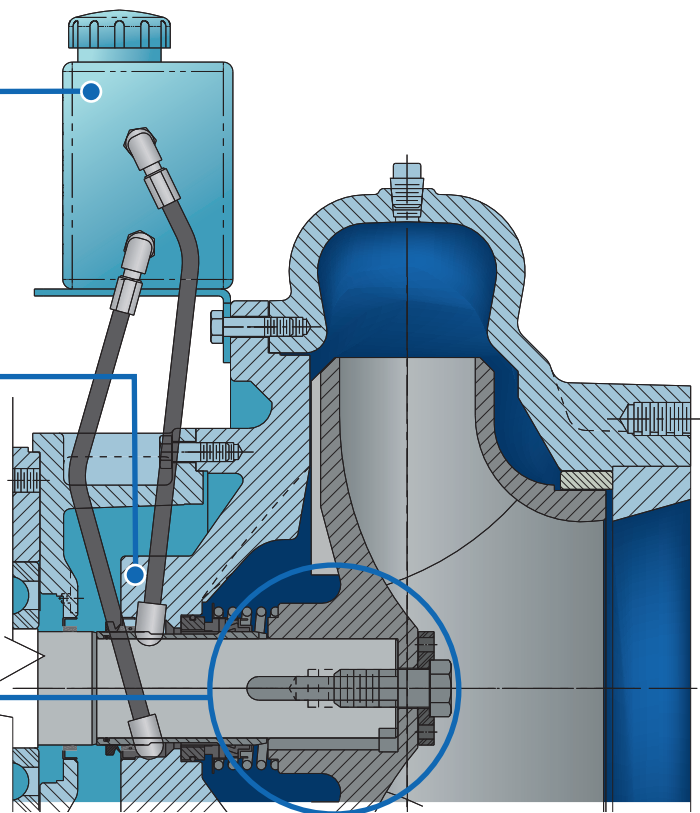
The heart of Cornell's Run-Dry™ system is the ability to deliver lubrication/cooling to the seal during periods of no flow operation. Natural circulation of the fluid in the reservoir removes heat from the seal faces to keep them in pristine condition.

Run-Dry™ Gland

With Cornell's Run-Dry system, seal face cooling is effected by providing for heat exchange/lubrication in the area immediately adjacent to the seal faces. This small cavity is created by adding a gland which is connected to the reservoir to complete the lubrication/cooling circuit.

Cycloseal®

Cornell's Run-Dry is an addition to the same Cycloseal system that protects our pumps during normal operating conditions. Truly a system, this combination of backplate deflector vanes, impeller backvanes and a quality type I or II mechanical seal, can also run dry, when equipped with the Run-Dry system.

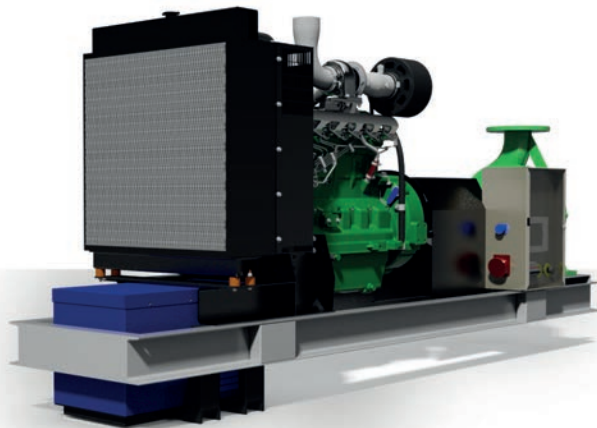


Hydro Compact

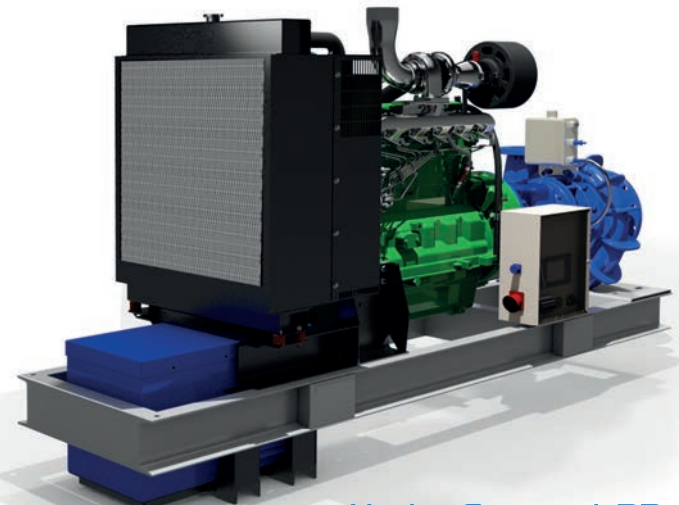
Hydro Compact is equipped with a **baseframe** specifically designed to optimize weight and dimensions but maintaining, at the same time, its proper features of sturdiness and robustness.

Hydro Compact can be therefore installed on any irrigation systems, perfectly adapting to all the mobile structures and integrating to different platform models.

These models maintain the same performance and equipment of the previous ones, with high quality Diesel engines and pumps, control panels with IP65 degree of protection, high-performing exhaust silencer and quick release fittings for external tank connection.



Hydro Compact CL



Hydro Compact RD

Hydro equipment: the control panel

Command panel ELCOS® CEM 120



- Pump water pressure control.
- Switching off of pump water protection device.
- Automatic faults monitoring
- Texts in 6 languages: Italian, English, French, German, Spanish and Portuguese.
- Remote control (start-up and stop).
- Management of glow plug preheating.
- Clock for programming the starting or stopping of the machine.
- Indication of preventive maintenance operations.
- Three-phase voltmeter check: minimum, maximum voltage, asymmetry and incorrect phase sequence of the generator.
- Fault log (the data of the last 100 faults that occurred are collected).

Control panel



- IP65 protection against dirt and humidity;
- Selector for start up;
- Command for engine speed adjustment;
- Command for activating the priming pump;
- Socket switches with machine differential protection;
- Emergency button;
- Power socket to pick up 100% of the alternator power;
- Service socket;
- Door with transparent sight glass: protection against dirt and water, maximum visibility of controls.

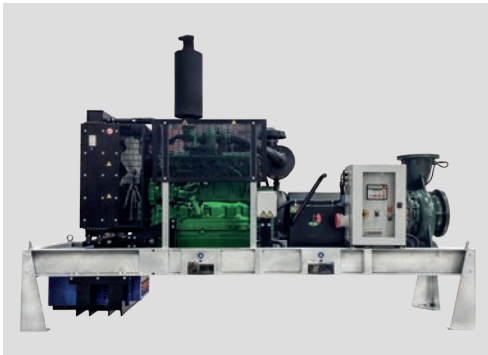
Hydro equipment



[Linear actuator](#)

It allows the engine speed to be controlled and adjusted directly from the control panel, without having to manually operate the accelerator lever.

Two limit switches stop the engine at the two ends of its range, allowing you to work at the point of maximum yield of the system.



[Brackets for transport](#)

The motor pump is equipped with four legs, also made of treated steel, to allow handling or storage, keeping it raised and protected.



[Alternator Protections](#)

Alternator with removable protections for easy access during maintenance.

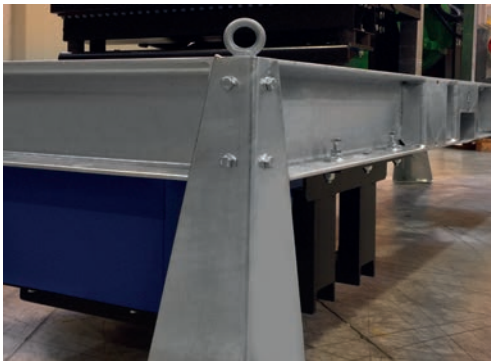
Thanks to the anti-corrosion treatment, they ensure maximum duration of the alternator and of the belt and reduce its noise

Hydro extras



Priming pump (optional)

Centrifugal pump priming is carried out via a priming electric pump or vacuum pump, which can be operated via switch on the control panel.



Galvanised baseframe (optional)

Base with protective treatment against corrosion through hot-dip galvanising.



TAILOR MADE SOLUTIONS

Nettuno, as water division of Visa SpA, has always focused its attention on the customers' needs, tailoring production to their requests. Nettuno motorpumps, with their many variants, are among the most versatile and complete in the market.

Other Nettuno solutions for irrigation systems

Fixed pumping stations



MOTOR CLUTCH SETS

Motor clutch sets can be used for all those applications where it is necessary to activate and deactivate the motion of the engine as for the following applications: vertical pumps, centrifugal and self-priming pumps, mills, agricultural dryers, oil mills and mixers



VERTICAL LINE SHAFT PUMPS

Vertical line shaft pumps for clean water. Thanks to at our partnership with the maior pumps manufacturer, we can provide the correct solution for your irrigation system.

Other Nettuno solutions for irrigation systems

Mobile pumping stations



OPEN

Nettuno® Open motor pumps, available with a wide choice of diesel engine pumps with flange and shaft drive for medium and high flow rates. With frames tanks, on wheels and stationary, from 250 lt to 1000 lt.

ATLANTIC

Atlantic is the range of soundproofed motor pumps. Two models designed thanks to the know-how resulting from the integration of Nettuno® into Gruppo Visa SpA, a major global manufacturer of generating sets. The Nettuno® Atlantic soundproofed motor pumps are designed for lifting and carrying clean water from wells, cisterns and tanks.



Other Nettuno solutions for irrigation systems

Generating sets and electropumps



ONIS VISA GENERATING SETS

Onis Visa reputation for durability over extended periods under harsh conditions such as those represented by this remote and unforgiving environment.

The excellent fuel consumption figures and low maintenance costs were also a contributing factor when calculating the return on investment of the project.



ELECTRO PUMPS

Self-priming electric pumps, multistage centrifugal pump. Thanks to our partnership with the major pumps manufacturer, we can provide the correct solution for your irrigation system.

Nettuno



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NETTUNO is a trademark of VISA S.p.A.®

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MOTOPOMPE - IRRIGATORI - GRUPPI ELETTOGENI - TORRI DI ILLUMINAZIONE
MOTORPUMPS - HOSE REEL IRRIGATORS - GENERATING SETS - LIGHTING TOWERS
MOTORPUMPEAGGREGATE - BEREGNUNGSMASCHINEN - STROMAGGREGATE - LICHTMASTEN
MOTORPOMPEN - BEREGENINGSHASPELS - STROOMAGGREGATEN - LICHTMASTEN
НАСОСНЫЕ СТАНЦИИ - ДОЖДЕВАЛЬНЫЕ МАШИНЫ - ЭЛЕКТРОГЕНЕРАТОРЫ - ОСВЕТИТЕЛЬНЫЕ МАЧТЫ