

# Pump leader Gruppo Aturia

APE Pumps' global holding company, WPIL, acquired the Italian pump company, Gruppo Aturia along with all of its brands during the second half of 2015. Richard Harper of APE Pumps introduces the resulting new offerings and highlights their niche application.

**W**PIL of India, the holding company of PSV South Africa and its pump manufacturing businesses, APE Pumps and Mather+Platt, purchased the global assets of Gruppo Aturia back in June 2015, bringing local access to five leading companies in the pumping field.

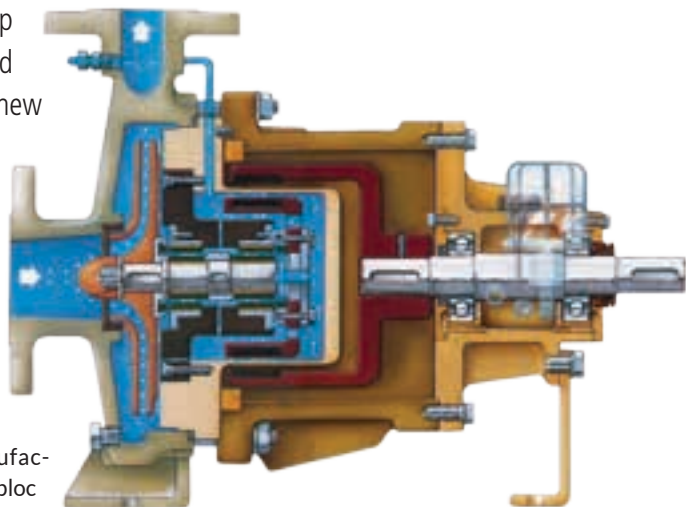
Aturia began to operate in the centrifugal pump sector in 1927 and soon became a leader in submersible electric pumps. The name is taken from the ancient fossils of the Aturia sea snail: "because water, essential for the development of any form of life, has always been its natural element and because its central spiral recalls the impeller of a pump. That's why we chose it as our trademark," notes Harper.

The Aturia submersible motor was patented in 1946 and in 1960, the company extended its reach to countries in the Mediterranean,

America and Asia. "Over time, Aturia acquired four top Italian companies: Rotos and Marelli in 1990, Audoli & Bertola in 2003 and Aris Chiappa in 2009," Harper tells *MechChem Africa*.

Rotos was originally established in 1919 and manufactured electrical motors, monobloc pumps, multistage pumps and vertical spindle pumps. In 1962 it became part of the French Guinard group and established a centre for multistage pump development. Based on this experience, it started to produce pumps for the process industry (ISO 2858 and API 610) and in 2005 it began to produce Rotos magnetic drive pumps at its plant in Taglio di Po.

Now a global specialist in this technology, Gruppo Aturia's technically advanced Rotos



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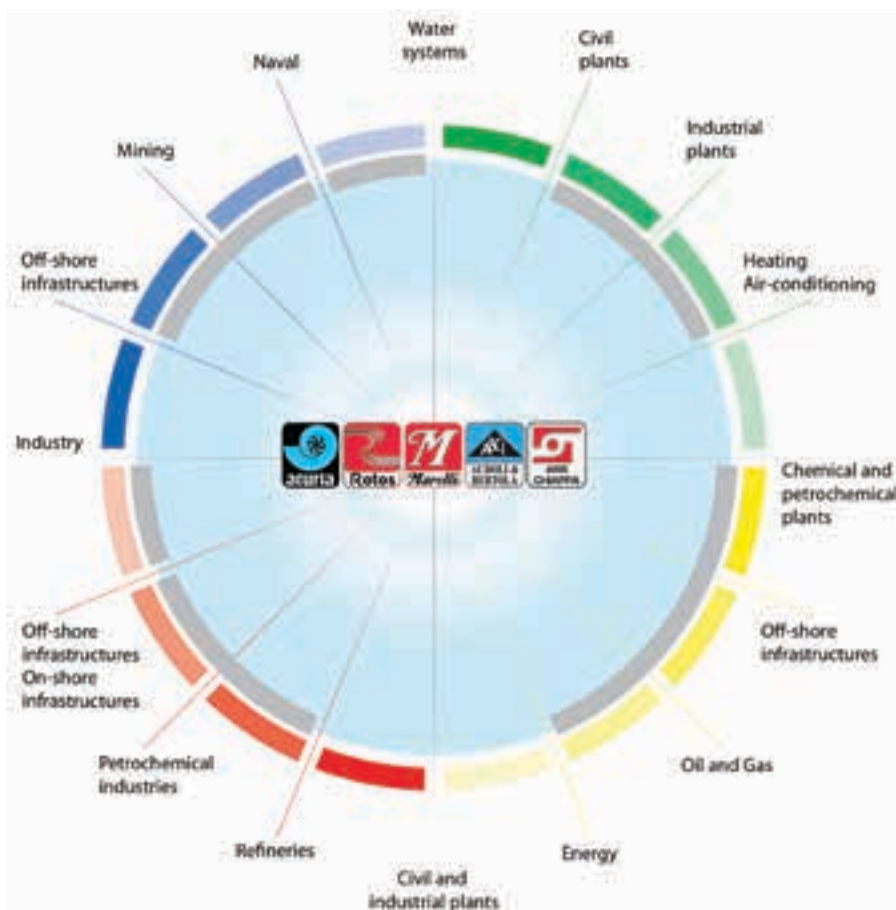
hermetically sealed, magnetic drive pumps are now available in 18 different designs with over 250 basic models. "These are particularly suited to the chemical and petrochemical industries and the vast pump range allows our engineering department to meet exact process requirements," adds Harper.

Marelli, acquired together with Rotos in 1990, was founded in 1891 to manufacture electrical motors and centrifugal pumps. Its acquisition extended Gruppo Aturia's range of products by including monobloc, split case and large-capacity pumps.

Audoli & Bertola started producing vertical pumps in 1890 and over the years it strengthened its presence in the market in terms of applications for heavy industry – steel plant cooling systems, power plants and the marine sector. Gruppo Aturia acquired Audoli & Bertola in 2003, improving its presence in the industrial sector. Its office in Turin is currently a centre of excellence for fire-fighting systems (NFPA20, FM).

G. Chiappa Fonderie was established in Turin in 1921 as a steel plant and started to manufacture bronze, aluminium and cast iron castings. In 1940 it began to produce vertical pumps. For over 40 years, in partnership with the world's top gas turbine manufacturers, it has been developing pumps specifically designed for lubrication services.

In order to acquire greater expertise and experience for particularly demanding applications such as those in the chemical, petrochemical and nuclear sector, Gruppo Aturia also acquired Gruppo Rüttschi in 2006, the world-class supplier of canned motor pumps, magnetic drive pumps and mechanically sealed pumps that have dominated the nuclear sector for over 50 years.

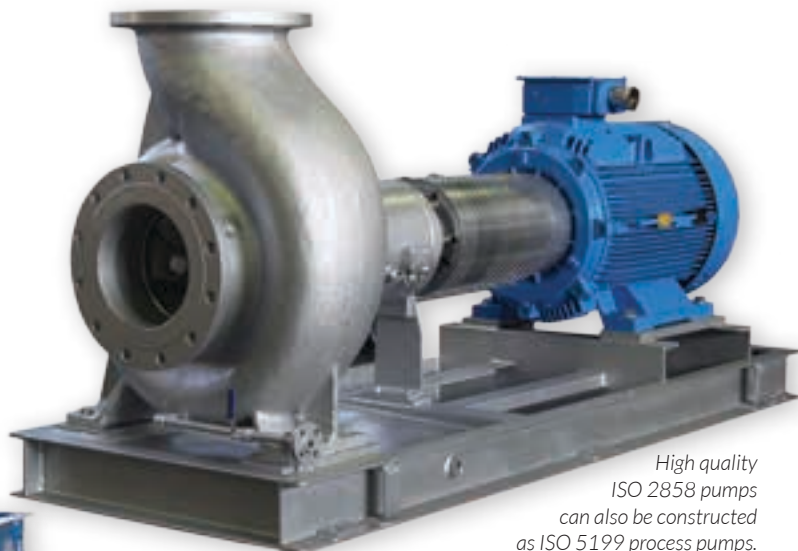


*Gruppo Aturia now consists of five niche brands – Aturia, Rotos, Marelli Audoli & Bertola; and Aris Chiappa – which together offer a vast range of solutions for surface, submersible, process and fire fighting applications.*

# comes to Africa



A Gruppo Aturia API 610 process pump.



High quality ISO 2858 pumps can also be constructed as ISO 5199 process pumps.

Today, Gruppo Aturia's vast product range is split into four broad areas:

- **Submersible applications:** Originally designed to lift water from wells, submersible electric pumps have replaced vertical axis pumps in many applications. By using diversified materials such as bronze, stainless steel and duplex stainless, these pumps are now successfully used for heavy-duty applications that require high reliability, such as the off-shore industry, mine dewatering and in the shipping sectors. Using submersible pumps in special vertical or horizontal cylindrical tanks allows higher design pressures with smaller footprints and lower operating noise compared with traditional surface solutions. More than 500 types of pump sets are available to offer hydraulic features that best match operating requirements and, in recent years, Aturia has introduced submersibles suitable for pumping hot water.
- **Surface applications:** Gruppo Aturia's monobloc pumps are used in the civil sector for water supply, heating and air-conditioning purposes. The company also offers single-stage and split-case pumps for water pumping systems, fire-fighting service and for use in the clean-water industry when large capacities and limited heads are required. As well as for water pump stations, multistage pumps are also used for artificial snowing, reverse osmosis and for more sophisticated services such as delivering boiler feed water to power stations. In addition, vertical turbine pumps are used in recirculation systems for industrial water, power plants, steel mills, in drainage systems and at fish farms.
- **Process applications:** Thanks to the

wealth of experience acquired with the Guinard Group, Rotos operates in sectors involving extremely heavy-duty service where high-tech pumps compliant with international standards are required. These pumps are manufactured in compliance with the API 610, ISO 2858 and ISO 5199 standards. They find their natural homes are in chemical and petrochemical plants, as well as in oil refineries. API 685 and ISO 2858 magnetic drive pumps are used for applications that require top reliability and safety: pumping toxic or flammable chemical products, for example. Liquefied gases and volatile liquids can be conveyed with 'barrel' process pumps and Rotos pumps are ideal for meeting special application needs such as geothermics, reverse osmosis, desalination, offshore and cryogenic fluids.

- **Fire-fighting applications:** With its Audoli & Bertola Division, Gruppo Aturia operates in the fire-fighting field by supplying pumping units that comply with European (EN 12845 and EN 12259-12) and US Standards (NFPA 20). Audoli & Bertola's technical expertise allows it to easily operate in civil and industrial sectors and comply with the strictest specifications required by refineries, petrochemical industries, offshore platforms and in-shore facilities. Audoli & Bertola has also developed a range of products for explosive risk areas: many products have been made with diesel and gas engines, suitable to operate in EExd II B or C Atex areas. In addition, Gruppo Aturia can supply an extensive range of centrifugal pumps for fire-fighting services with vertical and horizontal designs.

"Thanks to integrated design systems, 3D models and FEM analysis, Gruppo Aturia offers state-of-the-art products," Harper says. The product cycle starts at the design stage where, thanks to many years of experience

and a database with over 1 000 hydraulic solutions, Gruppo Aturia is able to develop pumps for special fluids, with power values up to 1 000 kW, pressure ratings of up to 150 bar and temperatures up to 500 °C.

From a manufacturing perspective, Gruppo Aturia has three specialised facilities: Gessate (MI), which is the group headquarters; Taglio di Po (RO) for Magnetic Drive Pumps; and Turin for firefighting pumping systems. "We recently achieved the important objective of fitting every manufacturing facility with a modern testing room. In our plants in Gessate and S. Mauro Torinese, we can test pumps with powers of up to 650 kW, capacities up to 8 000 m<sup>3</sup>/h and pressure values up to 120 bar, while our plant in Taglio di Po has been designed for sealless pumps intended for use in the chemical sector," Harper adds.

Along with periodic tests on the performance of standard products, these testing rooms are also used for customer acceptance and/or certifying body tests.

Gruppo Aturia's commitment to continuously improve quality has been acknowledged by the Lloyd's Register Group with ISO 9001: 2008 Quality Management System certification.

"Quality is guaranteed through the company's 'Total Control' initiative for all manufactured components. Pump performance is checked in the testing room. Gruppo Aturia has set up a metrological lab to test parts with a coordinate-measuring machine and traditional instruments calibrated with latest-generation software.

"A wide range of NC machines allows operators to easily achieve the precision requested to process the components; the online management of project and design specifications ensures the latest updated information is readily available; and the IT management system and the collection of processing data also allows for products to be traced at every stage of the manufacturing process," Harper concludes. □