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ATB Riva Calzoni  
Semat and Fintro  
information magazine



# ATB Riva Calzoni BD & Sales Workshop 2017

*Getting to know each other to increase our strength*

## TABLE OF CONTENTS

### 8

Oil & Gas

**ATB RIVA CALZONI**

In Nigeria for Dangote with Sace and Unicredit



### 12

Large Hydro

**ATB RIVA CALZONI**

Revamping  
on Lake Massingir



### 16

Wind Power

**ATB RIVA CALZONI**

Another ATB Riva Calzoni 500 KW wind turbine  
installed in Scotland



### 20

Small Hydro

**HYDRO ENERGIA**

Thirty-seven turbines in Albania



- |  |  |
|--|--|
| 03 Editorial from the Chairman                               | 18 Service: From Mangalore to Zarqa                      |
| 04 BD & Sales Workshop                                       | 20 Hydro Energia: Thirty-seven turbines in Albania       |
| 08 Oil & Gas: In Nigeria for Dangote with Sace and Unicredit | 22 Semat: A year of activity beyond the Alps             |
| 10 Large Hydro: Ituango Project - Colombia                   | 24 Semat: Reclamation starts in Ilva                     |
| 12 Large Hydro: Revamping on Lake Massingir                  | 25 Career Day: In line to get to know ATB Riva Calzoni   |
| 14 Nuclear: New Job for Areva Tn.                            | 26 Working for a single management of all Adriatic ports |
| 16 Wind: another ATB 500 kw installed in Scotland            | 28 News in brief   |



*We may find new business opportunities in sectors other than those in which we are operating and in areas of the world where we are not yet present. Those are the opportunities that we cannot allow ourselves to miss.*

## Awareness is the basis for building our future

The main objective of the first edition of the Sales & BD Workshop was to get to know each other, increase business development, marketing and sales opportunities. The event took place at the beginning of the autumn over the course of three intense days of meetings, work and discussion involving the entire ATB Riva Calzoni sales force. It was an unprecedented event in ATB Riva Calzoni's history.

During my last trips to Malaysia and Colombia, where we have permanent organizations, I had the opportunity to meet many professionals from the local teams and to listen to their points of view. From each of them I acquired significant awareness of the company's potential, even if it was often very concentrated on a specific product. In contrast, the mid-November meeting was intended to

provide an overview of all our business lines and to give all participants more effective tools to accomplish their mission. In recent years the market has changed radically and globalization is an unavoidable factor. Nonetheless, we can find new business opportunities in sectors other than those in which we are currently operating and in areas of the world where we are not yet present. Those are the opportunities that we cannot allow ourselves to miss.

Despite maintaining our core business, oil & gas and large hydro, we are currently investing in renewable energies: new technologically advanced equipment such as wind turbines and small hydro turbines, which we want to promote in the best possible way, thanks to our presence in all continents.

To pursue this vision of expanding our

business potential it is essential that we all collaborate with each other with an efficient exchange of information and knowledge.

I am sure that the three days of workshops were useful, instructive, enjoyable, and interesting for everyone.

The awareness of what we are and of what we are able to offer to the global market is the basis for enhancing our marketing and business activities.

*Sergio Trombini*

*FINTRoGroup Chairman*



# ATB Riva Calzoni BD & Sales Workshop 2017

Boario Terme (Bs) - november 14 - 15 - 16







## Shared ideas for new strategies

from the left:

Elmondo Presutti  
 Danilo Serioli  
 Mario Marangoni  
 Paolo Zenocchini  
 Sergio Trombini  
 Marco Corsetti  
 Enrico Camparada  
 Nishchal Bhardwaj  
 Salvatore Poddighe  
 Teresita F. Regalado  
 Andrew Berselli  
 Gianluca Raseni  
 Zuraina Vermeulen  
 Andrea Cherubini  
 Stefano Iorda  
 Enrico Bernava  
 Azizan Razak  
 Nicola Terlizzi  
 Folker Veenstra  
 Gonzalo Maffei  
 Natale Clemenza  
 Alvaro Russi

*The first edition of the three-day workshop brought the ATB Riva Calzoni sales force together in Boario Terme.*

The participants even arrived from distant places like Colombia, Chile, Malaysia, the United States, and Canada to meet their Italian colleagues, share ideas, and give life to a unique event in ATB Riva Calzoni's history. The company's entire international sales force gathered for the first edition of the Sales&BD Workshop from the 14th to the 16th of November in the conference room of the Rizzi Aquacharme Hotel & Spa in Boario Terme. Three days that enabled the ATB RC sales organization, comprised of sales representatives from countries around the world, to meet and share

ideas and develop new sales, marketing, and communications strategies. During his workshop welcome speech, following the introductory corporate presentation by Mario Marangoni, Sergio Trombini commented that "we must look to the future with a wider perspective than we have to date, promoting all the technologies we are able to offer together with services that provide added value to our customers". The aforementioned intercontinental presence starts in Pasir Gudang, Malaysia, with Danilo Serioli, Chief Executive Officer of the MMHE-ATB joint



venture. It then continues in Colombia with Gianluca Raseni, Latin America Area Manager, where ATB RC has deep roots and a permanent presence going back to the 1960s, which was consolidated in 2010 with the opening of a permanent business establishment in Medellin.

Particular attention has been paid to the most recent areas of development: nuclear, reformulated in the construction of casks, the containers for storage of radioactive material, and wind, which now requires the adoption of new business strategies.

Tuesday afternoon continued with the focus on products, services and projects of the two main divisions. The first, introduced by sales director Salvatore Poddighe, focused on Oil&Gas: from the Rapid project to Service and Maintenance operations through the prospects in the areas supported by ATB RC sales organizations, including North America and India. Enrico Camparada, Sales Manager of Large Hydro, commented in

the first speech on Wednesday morning that the East Asian market, together with North and South America, is one of the most interesting business areas for hydroelectric power.

Various topics were at the center of the workshop discussion: the market trends of the core business, the need to focus on renewable energy, the wind division, which is growing and seeking opportunities in countries that allow individuals to invest in wind power, and on recent developments in small hydro. The third and last day was reserved for external contributions. Professor Armando Cirrincione of the SDA Bocconi School of Management discussed the future changes in the energy market and the possible marketing strategies to be adopted in the coming years. Pietro Colella and Michele Pagani of Gummy Industries, a digital brand design agency, addressed concrete examples of the benefits of intelligent and emotional B2B communications.

Mario Marangoni concluded that this first workshop, which was actually a pilot and introductory event for ATB Riva Calzoni, "will surely be followed by others in which we will focus on market analysis trying to define together which strategies may help us to grow". The next appointment is for September 2018.



*Jim Fisher, agent in the USA for Oil&Gas, received an award at the workshop for his 41 years at ATB Riva Calzoni.*



## ATB Riva Calzoni's contribution to the Nigerian oil giant

*With the financial support of SACE and Unicredit, the company is fabricating two reactors for the Dangote Refinery, in the Free Trade Zone of Lekki, Lagos.*

According to the plans, the investment of the magnate Aliko Dangote will enable the Dangote Refinery, a giant with a footprint of more than 2000 hectares and a potential production of 650,000 barrels of oil a day, to become operational as early as October 2019. The opening of Nigeria's first private refinery, the one that Shri

Ganesh, General Manager Procurement & Contracts of Dangote Oil Refining Ltd, called "a great company and our national pride" will have positive effects on the country's economy. The plant will be built in the Free Trade Zone of Lekki, a few kilometers from the capital Lagos.

With the partnership and financial and insurance support of UniCredit and

SACE, ATB Riva Calzoni was awarded the \$23 million contract for the production and installation of two reactors for the Dangote Refinery petrochemical site.

The refinery will have a direct outlet on the Atlantic and, once completed, will be integrated with a petrochemical plant for the production of polypropylene and



*The reactors, based on Mild Hydrocracking technology and UOP process, will be among the largest ever built worldwide.*



a power plant to generate the energy necessary for the operation of its internal infrastructures. In addition to the typical primary refining units, the refinery will be equipped with up to date FCC, DHT, CCR processes required for the refining of heavy crude from the deep-water deposits of West Africa. The project was assigned directly by the end customer, that is, Dangote Refining Ltd, and will be constructed with the support of the Indian firm Engineers India Ltd. for the engineering aspects.

The reactors, based on Mild Hydrocracking technology and UOP process, are made of low-alloy steel with the addition of vanadium, weigh 1,620 tons each, and are 57 meters long with a 6 meter diameter. They are among the largest ever built worldwide.

Salvatore Poddighe and Francesco Squaratti, respectively Oil&Gas Commercial Director and General Operations&Manufacturing Manager explained that “over the years ATB Riva Calzoni has acquired a solid knowledge base and experience regarding hydrocracking components. The reactors, albeit exceptional in terms of weight and

size, are in any case a “typical” product for ATB RC for the O&G sector since 1996 when the use of vanadium steels for the production of pressure vessels became a standard. In fact, the company has fabricated 128 of them already installed in the main refineries around the world. More generally, since 1960, ATB RC has exceeded 650 references relating to the production of hydroprocessing reactors”.

As Poddighe himself pointed out while presenting the Dangote project during the 23rd Animp Congress, the contribution of Unicredit and Sace was critical for the entire financial operation, providing the guarantees requested by the customer and with respect to the risks of a political nature.

In the immediate future the Nigerian market may hold other interesting business opportunities in store for ATB Riva Calzoni. The forecast of the last SACE Export Report shows +3.5% of Italian exports in the 2018-2020 three-year period driven by the economic recovery, after a recession especially linked to the changes in raw materials prices.

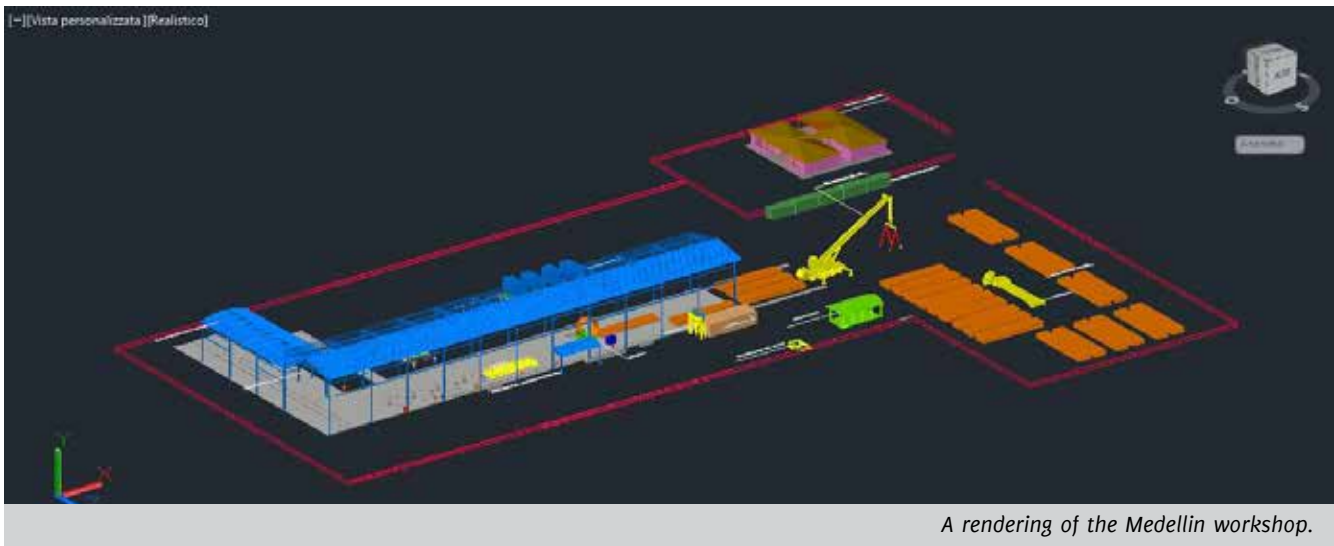
Meanwhile, the construction activities in the Lekki Free Trade Zone worksite proceed. The worksite is currently being consolidated and the installation of the foundations is under way. The first components have already been shipped to the worksite.

*The contribution of Unicredit and Sace was critical for the entire financial operation, providing the guarantees requested by the customer and with respect to the risks of a political nature.*



*The assembly stages in the Porto Marghera plant, Venice.*

# Ituango, a 2480 MW project to supply Colombia with clean energy



*A rendering of the Medellin workshop.*

*From penstocks to surface gates: ATB Riva Calzoni's entire supply to the largest hydroelectric plant in the South American country.*

Hydropower meets 70% of Colombia's energy needs. Investments for the next few years will also focus on this form of generation. It is for good reason that for over half a century Colombia has been one of the most attractive markets for ATB Riva Calzoni. The presence of the Brescian company in this part of the world is also reflected in the essay "La Storia di Brescia" (The History of Brescia) by Paolo Corsini and Marcello Zane in a section dedicated to local industry in the 1970s. The authors wrote that "Foreign markets remain a point of reference for ATB which in those years opened subsidiaries in Colombia, Mexico, Brazil, and Venezuela". That was as true in the past as it is in the present. To provide greater stability and structure

to ATB Riva Calzoni's activities in Latin America, a branch was established in 2010. With the establishment of that company, an office and a plant were opened in Medellin, which immediately began to carry out local projects. These projects included Ituango, the largest large hydro operation ever constructed in Colombia. Commissioned by Empresas Publicas De Medellin, Ituango is a 2480 MW hydropower plant which is intended to satisfy 18% of the country's demand for electricity. The plant is located 194 km from Medellin in Ituango, in the Department of Antioquia, on the Rio Cauca which is a tributary of the Magdalena River that leads to the Caribbean Sea. The site is four and a half hours by car from Medellin, passing through different altitudes of the

mountain range, over often difficult one lane roads. These are sparsely populated areas, immersed in nature, in which it is not at all easy to carry out projects of this magnitude, especially from a logistical point of view.

Once completed, the dam will be 225 meters long and will contain 20 million cubic meters of water. At present, the excavations for the spillway and those for the concrete structure are 86% and 60% complete respectively. The hydroelectric plant will have eight turbines: the first is 300 MW and will be operative by the end of 2018, the other seven units will gradually become operational between 2019 and 2021.

The public call for tenders was divided into four tenders, which were in turn divided into lots. ATB Riva Calzoni supplied



*The Ituango worksite*

the entire range of hydromechanical equipment in four different lots for Ituango.

The supply included the following lots: two flat gates, eight main gates, and eight auxiliary gates delivered in January 2013; eight penstocks built in March 2014; the intake grids and the bottom discharge gates were finished in August 2015. The fourth lot, the most significant, was granted in December 2015 comprising the 4 surface discharge gates and the intermediate discharge gates. For the latter lot, ATB RC committed all its technical expertise: the four 16.5x21 m surface discharge gates are among the largest discharges to date produced at the MMHE-ATB production plant in Malaysia. The first were delivered in June 2017, the second lot embarked in July of the same year. Gianluca Raseni, Latin America Area Manager specified that “by the end of the year we will have completed the delivery of the supply. Then we will supervise the assembly and installation, entrusted to us by the client. This will take another couple of years”.

The engineering part was developed in Italy and in Colombia while the manufacturing of the equipment itself was implemented between Roncadelle, Pasir Gudang and Medellin, where there is a workshop equipped for the calendering, welding, and machining of components.

Raseni added that “ATB Colombia has grown a lot in these five years in engineering, administration, and sales. We are also supporting our new South American branches in Chile and Peru, helping them above all with management processes. We are able to be quite independent and technically strong. And much of the work we can do on site”.



*Transport operations*

# In the natural kingdom of Limpopo to provide Mozambique with water



*The ATB Riva Calzoni workshop, on the shores of Lake Massingir.*

*ATB Riva Calzoni repaired the bottom discharge of the Massingir dam, a plant designed to supply the African country's irrigation network.*

This is a place of ancient myths, traces of prehistory, legends of tribal culture, and wild nature. The Greater Limpopo Transfrontier Park is the largest nature reserve in Africa, with a wealth of flora and fauna which is unique in the world: hundreds of species of trees, fish, birds, amphibians, reptiles, and mammals. It is an immense, endless green expanse of over 35,000 km<sup>2</sup> made up of the union of the Limpopo Park in Mozambique, the Kruger National Park in South Africa, and the Manjinji Pan Sanctuary and the

Malipati Safari Area in Zimbabwe. This park is part of Nelson Mandela's dream of peace; the South African president strongly supported the establishment of this park.

Along the shores of Lake Massingir, in the province of Gaza, a rural area in southern Mozambique, it is not unusual to see hippos having a drink or a peaceful bath in its waters. In the 1970s the government agency Ara Sul built a dam on the Olifants River (emissary of the dam basin) designed to supply Mozambique's entire irrigation network. And so it was

until 2008, when an explosion, caused by an error in maneuvering the sluice-gates by an operator, irreparably damaged the bottom discharge.

Since October 2015, ATB Riva Calzoni has been working on the rehabilitation of this part of the plant. With 130 workers organized over 2 shifts, the company supplied and laid two 260 meter long penstocks, each having a diameter of 6.4 m. It then installed the radial gates, the hydraulic power units, and relative control panels. At Massingir, a temporary

workshop was set up, equipped with a calender, an overhead crane, sandblasting and coating machinery, and a submerged arc welding machine. The products produced onsite were then transported and lowered into the tunnel with a derrick crane and welded.

The repair and rehabilitation required the construction of new arms for the gates (7 meters high, 4.5 meters wide, radius of 12 m) in Italy which were completely regenerated and reassembled in the plant. The lateral edge of the skin plate was restored and the damaged carbon and stainless steel clad parts repaired. Luca Donadei, engineer for ATB Riva Calzoni Large Hydro division supervised all the revamping phases of the bottom discharge, which was completed at the beginning of November 2017.

Luca Donadei added that “We first did the steel liner and the hydro-mechanical works engineering at Roncadelle, then the raw material was acquired and transported to the worksite. Once the Massingir workshop was built, we installed all the machinery and in April 2016 production began”.

The alternating periods of drought and heavy rains, typical of this tropical climate, forced the team to adapt to the vagaries of the weather. Donadei explained that “Some stages were quite difficult like for example the application of the anticorrosive coatings which can dry only in the absence of moisture. Nonetheless, we managed to complete the intervention in the best way, maintaining our quality standards”.

*The repair and rehabilitation required the construction of new arms for the gates in Italy which were completely regenerated and reassembled in the plant.*



*Mounting the arms of the radial gates*





*In the Roncadelle plants the work on casks proceeds, a type of product that at the moment represents the technological avant-garde for the global market.*



# Areva TN chooses ATB Riva Calzoni for the supply of new generation casks

*Besides the twelve pieces ordered in September 2016, another ten were added in August 2017. The casks are based on ATB RC state of the art technology for the industry.*

**T**N3, is a type of cask currently representing the state of the art for the sector. In one of the halls of the ATB Riva Calzoni plant in Roncadelle, work on the production of these containers for the transport of spent fuel from nuclear power plants has been ongoing for some months now. These casks must meet the strictest international design and safety regulations.

Since the end of 2016, ATB RC is responsible for the engineering and manufacturing of a new range of casks for the French company Areva Trans Nucléaire (ATN). This French multinational entrusted the development of two innovative models of containers for the transport of spent fuel from nuclear power plants to the Brescian company. Giovanni Ronchetto, Head of the Nuclear Business Development of ATB Riva Calzoni explains that the end customer, a top French public company in the generation and distribution of electric energy, "is in fact replacing its entire stock of transport casks, in all one hundred, with updated and more reliable models".

This type of container is designed for road and rail transport and must therefore meet very stringent design and safety standards, ensuring reliability and maximum resistance even in the event of heavy impacts.

The novelty in terms of materials is above all in the type of steel used, a high strength alloy, never before used for this kind of product. The manufacturing will require investments to fit the Roncadelle workshop for specific manufacturing processes. Mr. Ronchetto added that "Areva chose to entrust the contract to ATB RC not only because we have internationally recognized expertise, but also because we have experience with this specific steel. Besides the twelve pieces ordered in September 2016, another ten were added in August 2017. The first finished casks should leave the workshops at the beginning of 2019, considering that the manufacturing process is very complex". In fact, a single piece requires around two years for its manufacturing.

To better supervise the manufacturing process, ATB Riva Calzoni maintains direct

contact with Areva's top management. Every three months a meeting is organized between top management representatives of the two companies, including the ATN managing director and an ATB executive, to discuss critical issues and any possible corrective actions in order to align the scheduling priorities with the action plan.

If everything goes according to plan, very significant workloads around 20,000 hours per year are expected for the Roncadelle plant for 2020-21. That figure alone gives an idea of the size of the investment in terms of workforce and resources put in place to meet the customer's needs. This contract opens an interesting market for ATB Riva Calzoni since the gradual process of decommissioning nuclear power plants will increase the demand for casks destined for the European market over the coming years.

*The end customer is replacing its entire stock of transport casks, in all a hundred, with updated and more reliable models.*



## ATB Riva Calzoni wind on the Polmont greens.

*In Maddiston, in the council of Falkirk, the 500 Kw turbine produced by ATB Riva Calzoni was installed in the Scottish village's golf course. It produces energy under the feed-in tariff benefits.*



The Polmont Golf Club is a nine-hole green expanse near Edinburgh, in the council of Falkirk. It is a very popular course with people from the nearby village of Maddiston. That is true for adults, men and women, as well as young people and children. On the Polmont greens, golf has become something more than a sport, it is a pleasant pastime. It has become a strong social aggregator that brings the generations together without regard for age differences.

In 2015 the members of the course decided to grant the Joint Venture, co-owned by ATB RC (65%), surface rights to install an ATB 500, a 500 Kw wind turbine, on the edge of the course. The turbine supports the activities of the sport association with the proceeds resulting from the lease of the land. The

machine, produced in the "renewables" plant of Artogne and finished in the Roncadelle workshop, is the second of this type and of that nominal power put into service in Scotland. The first, in the town of Ladybank, was installed in 2016 and has shown very positive yields. It has a nominal power of 500 kW, a 54 m diameter rotor, and the hub is 50 m above the ground level.

Denis Balsarini and Gianmarco Nardo, project managers of the Wind division who have supervised the project in recent months explained that "the specificity of the turbine is that it has been designed to produce excellent results even in environments with low wind conditions". This is because the diameter of the rotor enables it to capture energy even in those conditions".

The assembly operations on the

Polmont Golf Club site were completed in August 2017 in three days by the staff of Spectrum Energy Systems Ltd under the technical supervision of ATB Riva Calzoni. With the turbine fully operational, the joint venture will be able to enjoy the benefits of the feed-in tariff, an instrument developed by the British government to incentivize the generation of electricity from renewable sources. Thus the energy generated will be sold at a pre-established premium rate with respect to market prices.

The expected production for the Polmont plant, with an expected mean wind speed of 6.5 meters per second, is around 1,600,000 kWh per year. Mr. Balsarini added that "The machine is now operational. We have completed the commissioning process and we were certified to receive the tariff".







Service

# From Mangalore to Zarqa, highly skilled service to extend the useful life of the plants

*On average four interventions per year which must always observe schedules and provide top after-sales assistance.*

Since 1988 when the Refinery started operating in the hills north of Mangalore, in the Dakshina Kannada district in the state of Karnataka, it has increased its production capacity fivefold: from 3 to 15 million tons of oil per year. Mangalore Refinery and Petrochemicals Limited (MRPL), controlled by the Ministry of Oil and Natural Gas, is now a petrochemical giant in Southern Asia. In 2016, ATB Riva Calzoni performed two interventions in this plant to monitor the operation of the hydrocracking units, the only ones in India to produce premium diesel, that is, high quality fuel with a very low sulfur content. The last intervention was completed last summer. In the time period between August 14th and September 9th, taking advantage of a scheduled shutdown of the plant, a team of experts in non-destructive testing, supervised by the Service & Maintenance department, verified the health of the second hydrocracking unit, comprised of three reactors built in 1997 by ATB Riva Calzoni. An inspection that has ensured the working order of those units, designed and built to operate in critical conditions. The pressure vessels (length: 33 meters, diameter: 2,800 mm, thickness: 180 mm) operate at internal pressures of 210 atmospheres at a temperature of 454 degrees Celsius. The inspection was carried out with a new method of investigation developed with the Italian

Institute of Welding (IIS) for the first time on ATB Riva Calzoni components.

Nicola Terlizzi and Nicola Bibbo of the Service & Maintenance department explained that "together we created a system to optimize the search for defects. A calibration block was manufactured in Roncadelle, on which we inserted sample defects to be identified. Then, by means of an ultrasonic device we calibrated the instruments to be used". In collaboration with the Italian Institute of Welding, the response of the sample defects to ultrasonic investigations was studied with a new software model.

Mr. Terlizzi added that the complexity of a Service intervention lies, above all, in the preliminary activities: "Many preparatory aspects must be coordinated in this phase, in order to understand how to operate in the countries where the intervention will take place: even simple things like how to take the materials needed on site are extremely important". As far as the intervention itself is concerned, we know that we must be quick, effective, and stay on schedule to avoid slowing down production". This year, in addition to Mangalore, an area in which the economy is booming thanks to the thrust given by the petrochemical industry, ATB Riva Calzoni carried out service interventions in Jordan, in the Zarqa refinery, just outside Amman, owned by the Jordan Petroleum Refinery Company which, following an agreement



■ Per la prima volta sui componenti ATB Riva Calzoni è stato applicato un nuovo metodo di indagine sviluppato con l'Istituto Italiano della Saldatura.



Mangalore Refinery Hydrocracking Unit no. 1

signed in May with a major engineering company, intends to carry out a significant expansion of its structures in the coming years. The main interventions involved two hydrocracking reactors, units smaller than the Indian ones, also manufactured by ATB RC in 2006. They were subjected to ultrasonic and metallographic analyses

in order to examine the structure of the steel subjected to severe thermal cycles during service. The inspection itself is focused on the evaluation of risks associated with operation, and includes the determination of the frequency with which future inspections must be carried out on the equipment in question. Once

again, the company teamed up with the IIS operators. "We are working on equipment we built which needs to be monitored and inspected throughout its useful life even well after the warranty period. We must always provide customers with efficient after-sales assistance supported by top technical skills" concluded Mr. Terlizzi.



TODFT Ultrasonic test on Mangalore reactors



Andrea Dell'Aglio at work at the Zarqa refinery

# Hydro Energia: the results of five years in Albania



In the last five years the small-medium hydropower sector has recorded significant growth in Albania. Almost all of the energy currently generated nationally comes from hydroelectric sources, even though only 35% of available resources have been developed so far, and the country still imports electricity to offset the remaining needs. The country's unique environmental characteristics and modest governmental incentives have enabled the country to become a leader of small hydropower in the Balkans within a short period time. Since 2012 Hydro Energia (a company recently acquired by the Fintro Spa group and specializing in small hydro plants) has been operating in Albania as a key player in electromechanical solutions. Since then it has contributed

to the construction of 16 new power plants, installing 37 generating units (16 Francis and 21 Pelton turbines), with three new high-voltage substations, for a total power of over 100 MW and energy generation of over 320 GWh per year.

Federico Tartaro, COO of Hydro Energia, explained that "Today, the Land of the Eagles provides a limited governmental incentive for small and medium

hydropower plants. Nonetheless this experience in the Balkans has shown us that the construction and commissioning of small and medium hydropower plants are in any case sustainable, even without incentives, given that these types of plants can be constructed with affordable solutions and interesting pay-backs". Tartaro continued saying that the topography of the Albanian mountains required an innovative and

Thirty-seven turbines and over 100 MW of power installed since 2012 in the Land of Eagles, which has been investing in small and medium-sized hydroelectric plants.

tailor-made design approach because “the mountainous areas are similar to those in southern Italy, but much richer in water. There are elevations with very unstable slopes and greater accessibility problems than, for example, the Italian Alps”. Given these considerations, tailor-made solutions were necessary: very long pipelines, laid near the river beds

The last 5 turbines produced by Hydro Energia were built entirely in the ATB Riva Calzoni plant of Artogne, and are now being installed. Mr. Tartaro’s presentation at Hydro Seville 2017 highlighted that the analysis of the data related to this experience will be a point of reference for the economic and feasibility assessment of future projects.



Gjorice (Diteko) - 2015



Lubalesh (Diteko) - 2016



Sebishte (Diteko) - 2017

at the bottom of the valleys required technological development, for example with a very extensive use of Pelton turbines with relatively low head. In addition, the hydrological peculiarities were considered, characterized by broadly and rapidly variable flow rates resulted in “the adoption of modular design solutions, which have returned excellent yields and make routine and extraordinary maintenance easier along with the use of standardized components and spare parts.

The design also sought to simplify the management of the plants themselves through advanced and user-friendly diagnostic and control systems, minimizing all environmental impact by choosing biodegradable lubricants and durable and non-toxic coatings”.

“The intervention in Albania has provided excellent results and consolidated technical and management practices. In these five years we were able to build a very positive relationship with the business fabric of the country, thanks to the far-sightedness, courage, and determination of the Albanian entrepreneurs. We are now working on new projects and solid and ongoing partnerships” he concluded.

*The intervention in Albania has provided excellent results and consolidated technical and management practices. Furthermore, it has led to the construction of a very positive relationship with the business fabric of the country, thanks to the far-sightedness, courage, and determination of the Albanian entrepreneurs.*



Thy Marcinelle - (Belgium): Construction of the flooring for coil storage



Montereau - (France): Construction of the "Atelier treillisoudes"

# Semat, in France and Belgium with the Riva Group

*From Creil to Charleroi: A year of interventions on the other side of the Alps in plants producing electrically welded mesh.*



Creil, Montereau, Neuves-Maison, Charleroi: These are the places where Semat carried out activities last year in France and Belgium. In fact, in 2017 the company in Artogne carried out a series of interventions in Riva Group plants on the other side of the Alps that are increasing the production of electro-welded mesh. Angelo Damioli from the Semat offices, took us on a virtual tour of the plants in Belgium and France.

The journey began at the Thy Marcinelle SA facilities in Charleroi, Belgium. Here the works for the 20,000 m<sup>2</sup> of outdoor industrial pavement began in February 2017 with a rather innovative approach. The exterior design, developed by the Belgian company ST S.A., provided for a pavement solution consisting of four layers: two levels of rather solid roadbed, one of asphalt and the last, the surface layer, of reinforced concrete. Mr. Damioli told us that "The entire sub-foundation

was subjected to a long certification process, made to compensate for the lack of resistance of the fill utilized which was therefore not very compact or stable. We had to take into account that the outdoor storage platform of the Thy Marcinelle SA warehouses must bear hundreds of tons". Specifically, the new platforms will be open-air storage area for wire rod, that is, rolls of rod, and of electro-welded mesh, an indispensable material for the building industry. He continued: "to date the job is 60% complete and we expect to finish in the coming months, if the temperatures are not too bad. In winter we could experience temperatures of -10 to -15 C that would prevent the concrete from curing". Another peculiarity of the execution of the project in Charleroi is the use of closed formworks for the construction of the sewer system, in order to guarantee the safety of those working inside the excavation.

The activities at Creil and Montereau,

two French plants of the Riva Group, are also almost finished. They involved the expansion and upgrading of the production facilities. The Creil site has been expanded by 1,000 m<sup>2</sup> with the addition of three new production lines and two mesh packaging lines, equipped with Promostar and Schlatter machines. Soon a fourth should be added. In Montereau the activities involved a new construction: Semat built a 7,000 m<sup>2</sup> plant from the ground up equipped with six lines, provided for the construction of an electrical substation, the entire construction of offices and warehouse and 15,000 m<sup>2</sup> of concrete pavement that will increase the storage area.

With respect to Neuves-Maisons, a small municipality in north-eastern France, the contract involved the design and construction of an electric and hydraulic substation together with the transformer hall. Mr. Damioli also commented that "In this case we carried out the work with a different method compared to our usual: we used prefabricated walls that were coupled on site and filled with concrete. It was a solution that allowed us to maintain the schedule and significantly speed up the construction activity".

# Ilva: Remediation activities begin



*The remediation activities continue inside the Taranto plant. In addition to the maintenance of refractory material and minor construction works, the removal of contaminated soil is about to start.*

Semat's activities inside the Ilva plant never stop, while in Taranto news, definitive solutions, prospects, and information about the ownership of the steel mill are still awaited. In this last part of the year, Sergio Trombini's company has even continued to acquire orders in areas that could develop into new and relevant business opportunities. In fact, Semat has recently been assigned the reclamation of some category 9 land in the minerals storage area of the production site. The land in question contains contaminated soil that once removed will be permanently disposed of. Giandomenico Cuscela, technical director at Taranto explained that "in order to carry out this kind of intervention, we wanted to have the necessary certifications. In fact, remediation is a market that could develop shortly and that will mean new

opportunities, both in Ilva and in other steel plants in Europe".

In the meantime, Semat continues to provide services in the steelworks facility with respect to routine maintenance of refractory materials, minor construction works and handling of raw materials and process materials within the plant. Recently, the construction of the heat exchangers of the AFO 1 and AFO 4 departments have begun at the request of Paul Wurth Italia, a customer with whom positive collaborations could follow outside Ilva.

Mr. Cuscela added that "our commitment is to continue not only with regard to our long term customers, but also in the search for new partnerships with international groups, such as Paul Wurth, GE, and Thyssen, which will soon be

key players in different environmental interventions planned in the new AIA (consolidated environmental authorization) released to AM Investco". In addition, just recently a work order was confirmed for the design of waterproofing interventions and a windbreak barrier for Parco Loppa (storage area). The works shall start no later than September 30, 2018 and be finished within 42 months, and Mr. Cuscela expressed his "hope to also be chosen for the executive phase of the works themselves. More generally, the goal is to continue as we have done in the last twenty years, during which our client has recognized our ability to solve critical issues on a regular basis in a difficult production site like that of Taranto".





## Career Day 2017



### *One hundred and twenty curriculum vitae for ATB Riva Calzoni*

At nine o'clock the queue in front of the stand was already quite long. Enough to make even our neighbors from Apple envious. A queue of graduates and near-graduates who, curriculum vita in hand, on the second day of the Career Day organized by the University of Brescia, introduced themselves and expressed their interest in working for ATB Riva Calzoni. Astrid Mazzardi, Human Resources Manager told us that "the morning went very well, we met a total of 120 people. For the most part they were individuals with technical training, hydraulic and mechanical engineers, but we also met with candidates for administration, legal assistance, as well as management control and planning positions". While graduates aim for an employment contract, near-graduates are more focused on an internship. Mrs.

Mazzardi who was at the stand with Floriana Renna and Veronica Guerini of ATB engineering added that "candidates ask us what opportunities the company is offering at the moment, understood as unfilled positions, what kind of contracts we offer, and what kind of training are planned for employees. This gives us the idea that even with a degree in hand they want to continue learning. The common goal is to grow professionally, improve oneself, and acquire new skills". Compared to last year the number of foreign candidates has definitely increased, a number that confirms the attractiveness of the University of Brescia. "They are students from the engineering and economics departments of UniBs, but also professionals already trained with previous work experience in their countries of origin and who are now

trying to find employment" highlights Mazzardi. "More generally, many have also expressed their availability to work abroad. Or rather, nearly everyone is looking for a company in which to embark on an international career". Thus ATB RC succeeded in attracting a good part of the 600 youth who came to the two days of Career day to meet the 96 participating companies. To follow up on the Career Day, the Human Resources department is developing a calendar of guided tours that will open the doors of the Roncadelle production site in January to students and new graduates.



## A single management for the Adriatic ports

*ATB Riva Calzoni brings its Marghera experience to the discussion on the role and management of the North Eastern seaports.*

On October 26, 2017 ATB Riva Calzoni was invited by the Venice Port Authority to participate in the meetings on the General State of Logistics in the North East called by the Minister of Transport Graziano Del Rio. The meeting, held at the Venice Arsenal, involved politicians and the port authorities in a multiparty discussion aimed at the establishment of a control room for unified planning and the interconnection of the Northern Adriatic

ports.

Representing ATB Riva Calzoni, active in the Venice port system for more than forty years, was Mario Marangoni who in his presentation retraced the history of the Marghera plant.

A history that began in the late 1960s, when the company, thanks to the experience gained in the development of steel welding engineering, began to appear on the growing petroleum



refining market manufacturing the first reactors for chemical and petrochemical plants.

The company's first office was located in an industrial area south of the city of Brescia, near the railway station. Most of the shipments in fact took place on rails. "But then the new products would no longer have complied with the maximum dimensions required" Marangoni explained. Thus to avoid insurmountable difficulties and reduce transport costs, it was necessary to identify a port area to establish a new production unit for the assembly of products: welding of the various sections, NDE controls, heat treatments, hydraulic testing, painting, and preparation for shipping.

For the construction of the second production site three different solutions were analyzed, but the most convincing was that of the Macroisola in the

Marghera port. Here, at the end of the 1970s, a production plant was built which today has reached 28,000 square meters, of which 11,000 are indoor.

"The decision to equip the company with a direct outlet to the sea was essential to ensure the continuity of production and to be able to export all over the world. From the 1970s to today, ATB Riva Calzoni has exported more than 2,500 pressure vessels, including about 650 hydro-processing reactors, which are the largest and most critical pressure vessels, with a weight ranging from 400 to 1,600 tons" specified Marangoni. In recent years, ATB Riva Calzoni has shipped from Venice to Europe, the United States and Mexico, Saudi Arabia and the United Arab Emirates, Latin America, Africa, the Middle East, and the Far East. Marangoni then commented on the excellent relationship maintained with the Venice

Port Authority, led by President Pino Musolino since 2016. "It is a relationship marked by the willingness to find suitable solutions that have allowed us to acquire increasingly complex jobs, enabling us to deliver all our products without any limitations" concluded Marangoni. "In 2011 an exclusive gate was made available to us for access by oversized vehicles in the perimeter of the port area, located in front of the gate from which products leave the plant. This is a concrete example of this constructive collaboration that has allowed us to continue production and maintain both competitiveness and employment".



*"The excellent relationship with the Venice Port Authority marked by the willingness to find suitable solutions that have allowed us to acquire increasingly complex jobs, enabling us to deliver all our products without any limitations"*

# short news

## New contract with Total Lukoil

ATB Riva Calzoni signed a new contract with the company Total Lukoil for the supply of a hydrotreating reactor for the Zeeland refinery in Vlissingen, the Netherlands. The uniqueness of the component, 570 tons of low alloy vanadium modified steel over a total length of 30 meters, lies in its thickness, very high compared to the average: 207 mm. With this investment the refinery will be able to improve and implement hydrocracking units.

Delivery is scheduled for the first few months of 2019. In recent days, engineers from the ATB Riva Calzoni Oil & Gas division met in the Roncadelle offices for a kick-off meeting with the Amec Foster Wheeler project managers, the engineering firm that is running the

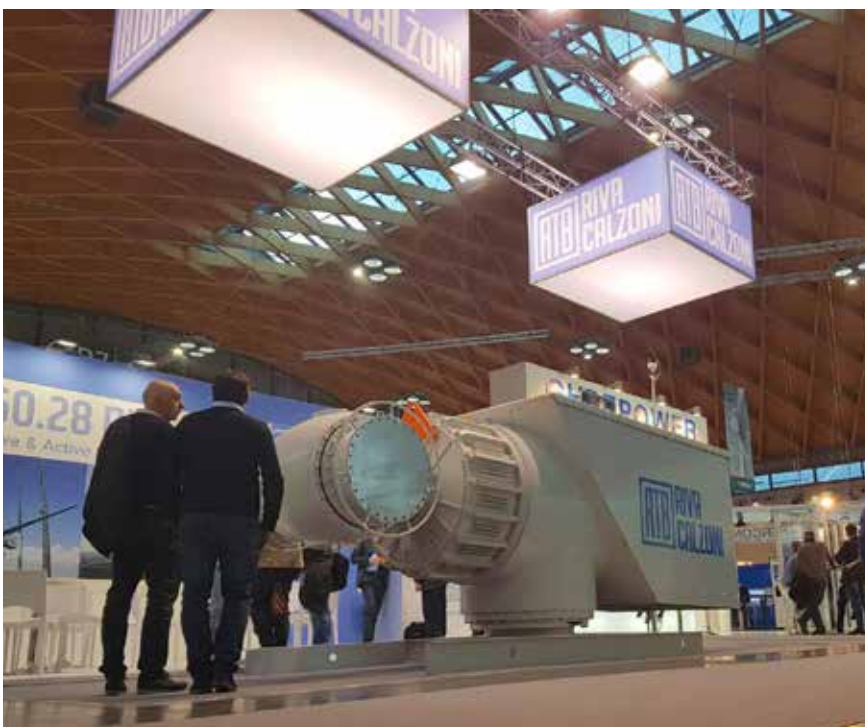


project on behalf of the final customer, recently acquired by the Wood group, an international company specialized in the provision of technical services for the industrial and energy sectors.

Zeeland Total and Lukoil have invested €40 million in the redevelopment and

expansion of the hydrocracking unit of the Zeeland Refinery, the largest in the world. This technical improvement will enable just one scheduled maintenance shutdown every 18 months, rather than once a year, thus reducing costs and loss of production.

## At Key Energy with the ATB60.28DD



From November 7th to November 10th the Rimini Expo Center hosted the 11th edition of Key Energy. The trade show is part of Ecomondo, an international event with an innovative format that attracts all operators from the renewable energy sector and the circular economy. It is the largest platform for the sector in the Mediterranean area with its 1,200 exhibitors and more than 100,000 visitors every year.

ATB Riva Calzoni also successfully participated in the show, gathering hundreds of contacts. The event was an opportunity to present the ATB 60.28 DD to the market, creating an impressive display in the stand.



## With UniBs in Vietnam

ATB Riva Calzoni was invited by the University of Brescia to make a scientific contribution to the workshop “Italy and Vietnam: Two countries, one sustainable goal”, organized in October in Ho Chi Minh City by the Italian Embassy and Consulate, on the problems related to the use of water, its management and the allocation of this resource, as well as the risks related to climatic conditions and river floods. “The day served to show our potential in the hydroelectric sector” explained Floriana Renna, ATB Riva Calzoni project

manager. “In particular we presented the mechanical products that are of fundamental importance for managing river floods”.

Thanks also to the similarity between Vietnam and Italy in terms of hydrogeological risk, “we captured the interest of those present by illustrating large and small hydro projects developed, or being offered, in similar regions from the point of view of hydrogeological characteristics, for example Laos, Thailand, Philippines, and Malaysia” added Renna.

## The first Isola Serafini test passage

After years of work, the new Isola Serafini basin in Monticelli d’Ongina on the Po river is operative. The “Spintore Cremona” was the first boat to cross the canal in a test passage, inaugurating the work that will enable the transit of boats up to category five, at most 110 meters long and 11.5 meters wide, despite the difference in the level of the watercourse. During this first passage, one of the docking pontoons was also transported upstream.

For Isola Serafini, currently managed by AIPO, the Interregional Agency for the Po, ATB Riva Calzoni produced the two downstream lock gates, 20 meters long and 8 meters wide, weighing 80 tons each, installed in April, the two smallest installed in September of last year, and also designed and installed the entire management system for the plant.

“Managing such an important project



was a very demanding and exciting challenge” explained Giuliano Garavelli, PM of the Isola Serafini project for ATB Riva Calzoni. “We are very satisfied with the results in terms of quality and safety, which, moreover, fully met the

customer’s expectations”.

The cutting of the ribbon is scheduled for next spring, while the technical testing will proceed until the end of the year.



## Ammonia converter for Navoiyazot (Uzbekistan)

photo by:



Andrea Cherubini  
andrea.cherubini@atbrc.com

## PHOTO CONTEST

We invite you to take part in the photo contest. Send us your pictures of the ATB and Semat projects all over the world. The best will be published on our website and on Fintro Group Magazine.

[communication@fintrospa.com](mailto:communication@fintrospa.com)



## EXPOSITION



Danang, (Vietnam) - 13-15 March 2018



Medellin - Colombia  
5 - 6 December 2017

**HydroVision**  
INTERNATIONAL

Charlotte, (North Carolina - USA)  
Charlotte Convention Center  
26-28 June 2018

Gdansk, (Poland)  
Amber Expo  
15-17 October 2018



*Wishing you and your family a  
Merry Christmas  
and a Happy New Year.*



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