

RENEWABLESSMALL HYDRO



About us

Profile

ATB Group, an industrial group based in Italy and operating in over 20 countries with more than 1.500 employees, is a leading player with worldwide experience and expertise in the following sectors:

- **Hydro Mechanical Equipment** and Penstocks Main contractor for hydropower plants
- **Heavy Equipment** manufacturer for Oil & Gas and Power Generation industries
- **Construction** of industrial complexes, **infrastructure** works and the **management** of full-cycle iron and steelmaking plants
- Electromechanical equipment for **small hydropower** plants and **small wind** turbines supplier

AN
INTERNATIONAL
PLAYER
FULLY
FOCUSED
ON
ENERGY

History

The activity began in 1981 when Sergio Trombini, sole shareholder and Chairman of ATB Holding S.p.A, established his first company. In 1990, the group expanded his activities in the Civil Constructions & Industrial Services, through the establishment of Semat Spa, now present in six European Countries with consolidated references as reliable partner specialized in the construction of industrial complexes, infrastructure works and the management of full-cycle steel plants.

In 2003, the Group has formed ATB Riva Calzoni through the acquisition and merging the decades-long of technical skills and facilities of Acciaieria e Tubificio di Brescia (ATB) and Riva Calzoni Impianti. Since their estabilishment, between the mid-18th and the early 20th centuries, ATB and Riva Calzoni have excellent results at worldwide levels in the construction of major energy projects and manufacture of components for power generation and Oil & Gas Industries.

In 2016, the group has acquired Hydro Energia, an Italian company recently renamed ATB Riva Calzoni Rinnovabili, with more than 30 years of experience and references and with a proprietary expertise for the design and manufacturing of hydroelectric turbines and Water to Wire packages.

RENEWABLES - SMALL HYDRO products & services:



HYDRO TURBINES



WATER TO WIRE



EPC CONTRACTOR



AFTER-SALES SERVICES

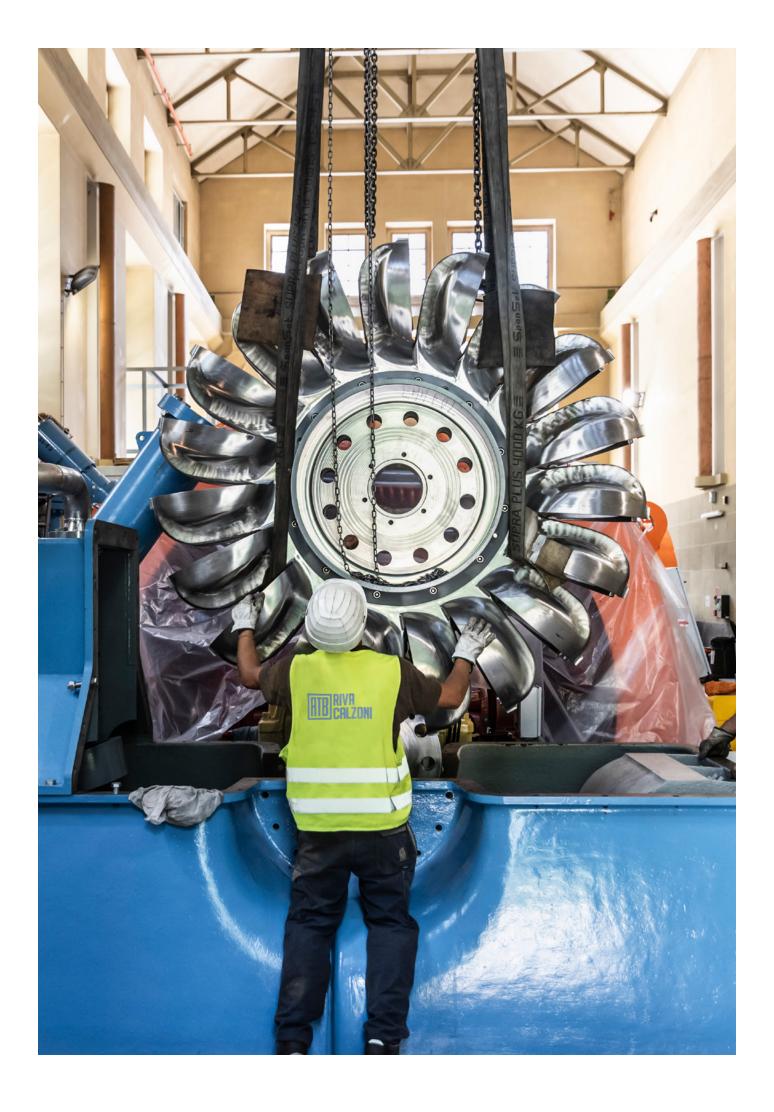
ATB Group operates today in the following business sectors:

RENEWABLES

HEAVY EQUIPMENT

HYDRO MECHANICAL EQUIPMENT

CIVIL CONSTRUCTION



Hydro Turbines

The ATB Riva Calzoni Rinnovabili own hydroelectric Turbines technology is based on **30 years long experience in design and production of the main type of turbines** such as: Kaplan, Francis and Pelton from 100 kW up to 20 MW, each ones with various setting according to the needs of our Costumers.

In the last years more than 210 hydro units have been engineered, manufactured, assembled, delivered and commissioned by our team, for more than 440 MW of installed power and a capability of energy yield of more than 1.000 GWh.

One of the most important target of our technical analysis is the definition of the best solutions in order to **optimize the activities both for new Power Plants and for the Revamping of the old ones.**

The design of each

in order to get the

best performance

according to the

hydraulic site

condition.

turbine is performed



Water To Wire

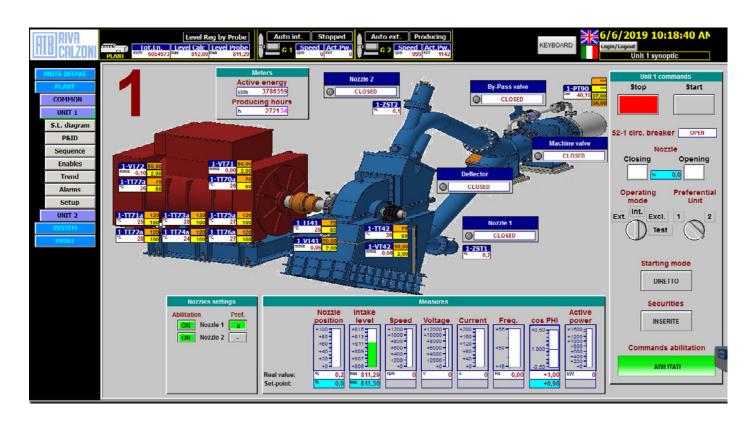


ATB Riva Calzoni Rinnovabili develops the highest skills and specializations in the design and implementation of **Automation, control and power transmission system**.



Complex and complete monitoring system based on top level SCADA can be provided together with the equipment, totally integrated in the automation system, in order guarantee safe and reliable operation of the Hydro Power Plant and prevent possible failures and production losses.

Advanced system of Remote Control and Data Transfer assures constant connection with the Hydro Power Plant to check all the relevant parameters of the units from Costumers Data Room or from any other Control Station.



Every Automation and Control System can be personalized to meet our Costumer's particular requirements.

EPC Contractor

ATB Riva Calzoni Rinnovabili operates as EPC Contractor for the supply of small Hydro Power Plants, with the capability of **designing, manufacturing and installing** electromechanical equipment for energy production, based upon its own technology for hydroelectric turbines.

Thanks to: more than 100 years of experience and references in Hydromechanical sector of the mother company ATB Riva Calzoni, and more than 35 years of experience in Civil construction for Industry, Infrastructures and Energy Sectors of the company Semat S.p.A. (part of ATB Group), we can assure a complete knowledge and skilled approach to every main sector of the construction of new HPPs, included consolidated experience in local content management.

ATB Riva Calzoni Rinnovabili can provide a full production cycle where each stage is developed according to the EN ISO 9001:2015 standard for quality, and operates along an UNI EN ISO 14001:2015 certified Environmental Management system.



AFTER-SALES Services



The background of the Company and the experience developed in several projects allow ATB Riva Calzoni Rinnovabili to provide also **complete solution for hydropower installations** and to grant a **high quality sales service**.

A specialized team of engineers and technicians provides the commissioning, start-up and O&M activities for each plant, ensuring the best after sales services and the best follow-up to our Customers after the hand-over of the plant.

High level software packages and apps will allow a complete remote survey and diagnostics of the equipment, with a large set of parameters and trends controlled and accessible 24/7 from **remote engineering station**, as well as visible in real-time applications specially developed for smartphones and tablets. After collecting and discussing the needs from SHPP owners and operators, our team of specialists designed, developed and implemented an innovative web-based interface for data acquisition and remote surveillance, nicknamed **Wolfview** (or WW). This system is completely independent from any SHPP hardware or access device and it uses only open source languages and libraries, shareable to any interested partner for allowing use and further customization or development.

Case History





Caroso HPP

Tirreno Power

Location Caroso (Borzonasca - GE - Italy)

Period 2009 - 2011

Scope of Work Hydro power plant revar

Scope of Work Hydro power plant revamping - New 9,4 MW Pelton turbine with vertical axis.



Palazzolo sull'Oglio HPP

Italgen

Location Palazzolo sull'Oglio (BS - Italy) **Period** March 2011 - December 2012

Scope of Work Hydro power plant revamping - Unit with vertical Kaplan turbine and synchronous generator (7,3 MVA @ 3,2 kV), with ancillary services and electrical BOP.



San Pietro D'orzio HPP



Location San Pietro d'Orzio (BG - Italy) **Period** October 2014 - July 2015

Scope of Work Hydro power plants revamping – Three Units with vertical Francis turbine and synchronous generator (Brembo intake: $3 \times 1,8 \text{ MVA} \@ 3,5 \text{ kV}$) and two Units with vertical Pelton turbine and synchronous generator (Parina intake: $2 \times 4,2 \text{ MVA} \@ 3,5 \text{ kV}$), with ancillary services and electrical BOP.



Monfalcone Porto HPP



Location Monfalcone Porto (GO - Italy)

Period July 2009 - March 2011

Scope of Work Hydro power plant revamping - Two 0,3MW@0,4kV units of with sub-horizontal Kaplan turbine and permanent magnet generator with variable speed, with ancillary services (cooling, electrical BOP).



Gjorice HPP



Location Diber (Albania)

Period June 2014 - September 2015

Scope of Work Water to Wire with supervision for installation and commissioning for a new HPP with three Francis Units (3x4,3 MVA), electrical BOP and a HV substation (@ 35/110 kV)



Uvini HPP



Location Uvini (CA - Italy)

Period May 2013 - January 2016

Scope of Work Hydro Power Plant revamping Unit with vertical Kaplan turbine and synchronous generator (17,5 MVA @ 9,0 kV), with ancillary services (oleo-hydraulics and braking system).

ATB Group world presence



Facilities



150⁻000 sgm - Roncadelle - Italy



24⁻000 sqm - Marghera - Italy



8⁻500 sqm - Artogne - Italy



9'000 sqm - Girardota - Colombia



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