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## NEW OFFICE IN MONTERREY, MEXICO

The American branch of SECO/WARWICK has decided to expand its presence on the continent. Mexico is an important market for SECO/WARWICK USA; hence, the decision was made to open a sales and service office in Monterrey. The new SECO/WARWICK, MEXICO division will occupy about 2000 square feet of office space in a high-rise business park, including garage parking and controlled-access reception.

As Mexico's second-largest city, Monterrey is convenient to major road, rail, and air transportation hubs. Major Gulf Coast ports and US points of entry are not far either. As one of Mexico's steel production epicenters, the region is also a major manufacturing center. All of these position the city as a perfect base to connect with regional heat treaters or serve the rest of Mexico, along with Central and South America.

**The new office is just the beginning of a larger expansion.**

Leading the expansion is longtime SWC engineer Luis Barragan, who will continue to manage the establishment of the business until it is on solid footing. At this point, he will pivot to managing sales while Marcus Lord will resume operations management. The Mexico office will also have its aftermarket segment, taking on aftermarket support for customers throughout Latin America.



MARCUS LORD  
Managing Director of S/W USA

*"Once the office has established a foothold as a self-sustaining base of operations for sales and field service, the next step will be to build on existing relationships we have with local contract manufacturers and mechanical contractors to fabricate furnaces and supplement field service staffing through outsourcing, respectively"*

*"We've always had furnaces and heat treat Partners to support, from Mexico down to Chile. That demand has grown to the point that it is time to open a base of operations dedicated to that market";*

- concludes Sławomir Woźniak, SECO/WARWICK Group's CEO.

# SECO/WARWICK INCREASES MANUFACTURING CAPACITY IN INDIA

SECO/WARWICK, one of the world's largest global manufacturers of metal heat treatment equipment, has opened a new production hall in India. This is another step in implementing the global expansion strategy, which aims to deliver the highest quality equipment for metal heat treatment to all continents.



## SECO/WARWICK development in India

This year, the SECO/WARWICK's company in India started the production of continuous lines for aluminum brazing and [will soon deliver the first furnace to heat exchanger manufacturer - Narain Cooling Technologies](#). Ultimately, SECO/WARWICK India will also produce vacuum solutions, meeting the demand for these furnaces in this part of the world. Last week, we held the official opening of a new production hall, which will significantly increase SECO/WARWICK's efficiency in this region.



**BINOY KOSHY**  
Managing Director S/W INDIA

*„In India, we are focusing on the production of vacuum equipment, and CAB lines, as well as service support. We have launched the production of a CAB line, and the first made-in-India vacuum furnace which will be delivered to customers in early 2025. Ultimately, we will be able to produce four continuous brazing lines in one cycle or 23 vacuum furnaces. The maximum length of the CAB line produced in our plant will be 63 meters. This will meet the needs even of our largest Partners“*

## The factory in India by the numbers

The new plant has an area of 4,000 m<sup>2</sup>, the ceiling height is as much as 12 meters, and the hall is served by two overhead cranes with a lifting capacity of 15 tons. The SECO/WARWICK India location is strategic. The factory is located in a special economic zone, near Pune, where many industrial plants, which are potential SECO/WARWICK customers, are located.



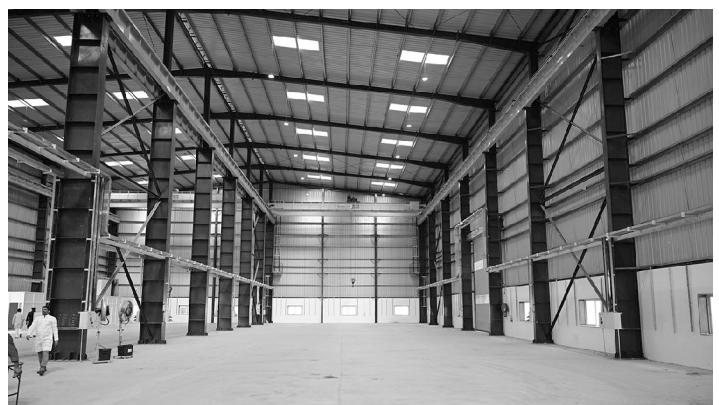
**SŁAWOMIR WOŹNIAK**  
CEO of SECO/WARWICK Group.

*“The investment in the new hall is an investment in the Group's development in this region. India is one of the fastest developing countries in the world with gigantic production needs. Owning production here means that we have to organize expensive logistics and transport for our furnaces. It is very important that products with the SECO/WARWICK logo fulfill the promise of high quality, regardless of where they are produced. That is why we have conducted a very reliable and long training process that guarantees that the equipment meets our highest standards,”*

## India, one of the world's largest emerging markets

India is a member of the G20 group. As one of the largest emerging markets, it can effectively pursue its interests internationally, even on a global scale. The demographics are a huge advantage with this Asian country. India currently ranks first in the world in terms of population. Over 1.4 billion citizens live in India, of which approximately 35 percent live in metropolises with millions of inhabitants. And compared to European countries, Indian society is very young. Almost half of the inhabitants are under 30 years old, and over 60% of the society is of working age. Rating agencies forecast that the GDP of India will grow by an average of over 6% per year by 2030, which is impossible for European countries.

It is also assumed that the country's economy will double within a decade. India is still classified as an emerging economy, but because it is the fastest-growing large economy in the world, according to some analyses, it may in the future - in the near future, become the third largest economy in the world, after China and the United States. It is therefore not surprising that European companies are increasingly expanding on this market. Such an investment cannot fail to pay off.



# GRAND OPENING OF THE SECO/LAB AT THE UNIVERSITY OF ZIELONA GÓRA



The SECO/WARWICK Group has been recognized for years as one of the most dynamic companies investing in innovation. The company has received numerous accolades including the title of: "Merit for Invention" on the occasion of the 100th anniversary of the Polish Patent Office, or "The one who changes Polish industry" and multiple awards for "Innovator," "Innovator of the Year," and "Innovative Company".

## A laboratory fit for the 21st century

SECO/LAB is also the name of the SECO/WARWICK R&D center and metallographic laboratory. The Polish R&D Department started in 2006 with 3 employees, and **today it is a dynamic organizational unit cooperating with many universities and employing over a dozen highly qualified employees, including scientists, automation engineers and outstanding heat treatment, thermo-chemical and metallurgy specialists.** The SECO/WARWICK Group's second Research and Development Center is located in the United States in Buffalo, NY.

*"The equipment in our laboratories and our excellent team of scientists allow us to research metal heat treatment technology and verify innovative ideas. We conduct a number of metallographic tests, which are then the basis for proposing appropriate technology to the customer, or in other words, verifying customer requirements. Using the laboratory equipment, you can quickly and professionally check the effects of tests and technological processes. The Research and Development Center provides extensive opportunities to create and test new or significantly improved solutions for the metal heat treatment industry. Together with the University of Zielona Góra, we decided that the almost identical SECO/LAB research laboratory should also be within the reach of students and allow them to acquire practical skills at this stage of their educational path. When designing our joint laboratory, we placed particular emphasis on the imperative of gaining practical knowledge in the field of heat treatment process automation and digitization. Universities should not educate only in theoretical terms. Today, in the era of automation and artificial intelligence, practical skills will be the main advantage on the labor market. At the same time, we hope that the best university graduates will want to continue their careers connected with metal heat treatment in the SECO/WARWICK Group,"* said Sławomir Woźniak, President of the SECO/WARWICK Group's Management Board.

SECO/LAB is the name given not only to the laboratory at the University of Zielona Góra, but also to the research and development center in Świebodzin. The SECO/WARWICK R&D Center is divided into two areas. In the first stage of development, technological tests are carried out using industrial equipment. During the second stage in the laboratory, test material preparation is carried out, i.e. material from technological tests is prepared for further examination and the prepared samples are analyzed.

[www.secowarwick.com](http://www.secowarwick.com)

Innovation is the basis for the SECO/WARWICK Group's development. Last week, the industrial furnace manufacturer and a leader in metal heat treatment, opened SECO/LAB, a modern Production Automation and Mechatronics Laboratory, at the University of Zielona Góra. The laboratory will help University of Zielona Góra students acquire practical skills, which will undoubtedly be an advantage on the labor market.

SECO/WARWICK is a company producing equipment for metal heat treatment and has its own metallographic laboratories.



ŁUKASZ PIECHOWICZ  
Director of the R&D Dept.  
SECO/WARWICK Group

*Most often we conduct microscopic observations and hardness measurements. The properties of a given material result directly from its microstructure, which is why microscopic examination is so important. By viewing the material at appropriate magnification, you can assess the treatment correctness, detect possible errors, and sometimes also learn about its history. Important information about the heat treatment results can also be obtained from hardness measurements. The data acquired is used to develop technology and build innovative solutions, as well as obtain heat treatment with better technical parameters and in many cases, reduce production costs. Many solutions are implemented thanks to SECO/LAB; The lab has also been instrumental when developing and improving technologies to reduce the carbon footprint generated by metal heat treatment equipment"*

## SECO/WARWICK and synergy with science

**The cooperation between SECO/WARWICK and the University of Zielona Góra began almost 10 years ago.** In 2021, a joint subsidized project entitled: "Autonomous system for monitoring and processing operating parameters of a pit furnace for the needs of Industry 4.0 in low-pressure carburizing processes" was completed. The obtained project results can be used in many industries, including the renewable energy sector. SECO/WARWICK and the University of Zielona Góra also cooperate within the international innovation network SUPRA, which was created by a community of industrial and research partners in the field of production technology. Currently, both SECO/WARWICK and the University of Zielona Góra focus on promoting practical knowledge and skills in the field of industrial process automation among students, hence, the idea to create SECO/LAB.

## There is no innovation without strong science

SECO/WARWICK, thanks to cooperation with science, can create and implement product innovations, as well as teach the future generation of innovators who will change the world for the better. Practical skills acquired by students of the Zielona Góra University can spark great ideas and inventions. To paraphrase **Benjamin Franklin: investing in knowledge always brings the greatest returns, and only a fool would disagree with this.**

VIEW PHOTOS

# LATEST ACHIEVEMENTS



## SECO/WARWICK supports an American manufacturer to expand their product portfolio

CAB technology leader – SECO/WARWICK – will provide an American partner with 2 identical continuous CAB lines for brazing aluminum heat exchangers, specifically battery coolers. The furnaces will work in Mexico and Spain, and it was thanks to adding this new technology, that the Partner will expand their product portfolio.

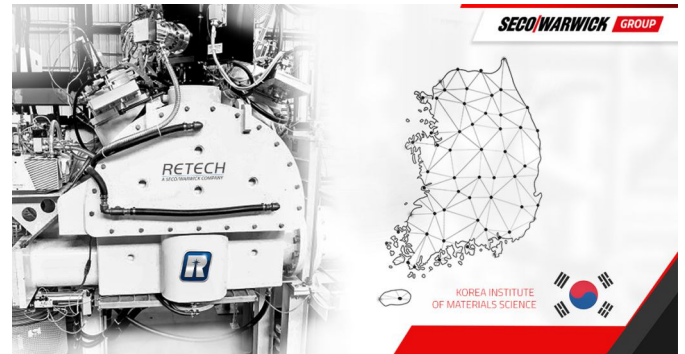
[CAB continuous lines](#) are used for protective atmosphere brazing aluminum of heat exchangers. Such solutions are used by leading automotive parts manufacturers and are used for mass production of battery coolers among other types of heat exchangers.

*“We delivered the world’s first CAB furnace to the American market 40 years ago. Today, these solutions operate on all continents. There are dozens of systems in China alone. When it comes to this contract, the Partner’s path to a purchase decision was interesting. For several years, we have been supporting this customer in learning about CAB technology, which had not been used in their plants before. Thanks to tests runs in our R&D CAB furnace in Poland, we presented the process and enabled prototype brazing. This, in turn, helped the customer receive an order for the production of battery coolers. The purchased CAB lines will be the first solutions of this type in the customer’s factories;”* - explains Piotr Skarbiński, Vice-President of the Aluminum and CAB Product Segments in the SECO/WARWICK Group.

Strategic cooperation opens up new perspectives

The SECO/WARWICK Group is a leader in CAB technology. Some manufacturers have several such furnaces in their plants. SECO/WARWICK values long-term cooperation and greatly appreciates it when a customer comes forward with further needs. Partnership and mutual trust are the foundation of over 40 years of cooperation with the automotive industry. This purchase was preceded by tests in the R&D laboratory, which resulted in the expansion of the Partner’s portfolio and offer.

*“The competitive advantage is the ability and willingness to support customers in the process of implementing new technologies. Thanks to this, we gain their trust and ensure risk minimization. Since customers often come back to us to expand their aluminum brazing departments, I also think that in this case, we have opened the window for further potential orders. We will deliver 2 CAB lines to two different continents, but in my opinion, this is only the beginning of cooperation;”* - said Maciej Stempniewicz, Deputy Director of the CAB Furnace Team Sales Department.



## RETECH to send a laboratory scale Electron Beam melter to a Korea Institute of Materials Science

### Big Capabilities, Small Footprint

[Retech](#) (a SECO/WARWICK’s Group subsidiary) will deliver a two-gun Electron Beam (EB) Melter to a research facility based in South Korea. Primarily, this 2-gun system will be used for conducting academic research on commercially pure titanium and titanium alloys.

*“The customer chose Retech because they liked the customizability that we offer, along with the potential for future modifications should they want to extend its capabilities;”* - said Earl Good, Retech’s Managing Director.

Retech offers many of their melting technologies in smaller, lab scale sizes, which makes them ideal for academic research institutions, commercial research and development departments, prototyping, or any application where exploring the metallurgy takes priority over production volume. Trials on smaller units also help to inform design decisions on full-size equipment for production scale programs.

### / What is an Electron Beam ?

An electron beam is a focused stream of electrons moving in a straight line and uniform velocity that is focused and directed over a work piece such that it causes it to melt.

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# THREE VORTEX® FURNACES FOR ALUMINUM COIL ANNEALING TO BE DELIVERED TO INDIA



JUPALCO is a newly established aluminum factory which will be part of the Jupiter Group. The aim of establishing the new plant will be to achieve the highest level of domestic aluminum production in history and to create an ecosystem of comprehensive aluminum-based solutions. This is the first cooperation between SECO/WARWICK and the Jupiter Group.

## Vortex 2.0 – the technology that significantly shortens cycle time

Vortex® is a very effective system for annealing aluminum coils. In the latest 2.0 version, heat transfer efficiency has increased within the furnaces that are equipped with an improved system of straight nozzles. Thanks to the use of patented air flow technology, [aluminum coil annealing](#) systems from SECO/WARWICK operate with process cycles that are significantly shorter than traditional technologies. This in turn ensures energy savings, increased efficiency, and improved surface quality of the finished coils. The system's key feature is the increased heat transfer coefficient, achieved by directing high-velocity air to both sides of the coil. This allows air to flow over the coil edges, not just through its outer layer.



**PIOTR SKARBIŃSKI**  
Vice-President  
of CAB and Aluminum Products  
SECO/WARWICK Group

*"In the case of coil annealing, the challenge is to optimize the process by reducing the cycle time as much as possible while maintaining the desired metallurgical properties throughout the entire load. The components used in the SECO/WARWICK furnace for annealing aluminum coils provide both greater efficiency and better quality. In the latest, patented 2.0 version, Vortex systems, thanks to a system of properly directed nozzles, ensures higher production volume with lower energy consumption. We are pleased to have become a partner in equipping a new, very modern aluminum factory in India."*

Jupiter Aluminum Industries, JUPALCO, has ordered three Vortex furnaces for annealing aluminum coils from SECO/WARWICK. These solutions are equipped with an effective, recently patented Vortex® 2.0 system.

## New Rolling mill in India made more productive with three Vortex units

The equipment ordered by the Jupiter Group includes three Vortex 2.0 furnaces for aluminum annealing, two cooling chambers and one loader. A system configured in this way will ensure the optimal production volume of the Indian rolling mill.

SECO/WARWICK supplies custom-designed furnaces for annealing aluminum coils and foil with various capacities – from single-roll furnaces to multi-zone furnaces with strict zone control. These solutions are used by aluminum producers from all over the world – from North and South America, Europe, and Asia. Vortex furnaces are equipped with dedicated control systems and load transport units. Vortex guarantees better heating temperature uniformity and the absence of local overheating on the coil surface, which significantly affects the aluminum coil's final quality. The Vortex system, in addition to the uniform temperature distribution of +/- 30C, ensures a significant reduction in the total process time compared to traditional systems offered by the competition.

The Jupiter Group of companies were founded in the late 90's by Mr. Sandeep Bajaj. From humble beginnings as a small flexible Packaging products company, it has grown to become a recognized player in the industry, operating on global markets in Flexible packaging, Aluminum foil and other products. The Jupiter Group plans to recycle over 50,000 tons of aluminum scrap every year once fully operational. This scrap will come from both in-house and customer scrap, purchased scrap, and recycled cans/foils etc. The new rolling mill in India will help the Group expand its footprint in the aluminum industry and produce Made in India products which will be known for its quality and reliable products and services.

*"Since the 1990's the Jupiter Group processes aluminum as a partner of the converting and packaging industries. Ecology is an important value for us. It is included in our mission, just like our Partner's. The rolling mill in India will be one of the most modern facilities of this type in this region, which is why we are equipping it with the best solutions available on the market. And that is why we chose three Vortex 2.0 systems which will fully meet the needs related to the JUPALCO aluminum heat treatment facility,"* - commented Mr. Sandeep Bajaj, CMD, of Jupiter Aluminum Industries, JUPALCO.

*"Vortex combines ecology and economy. An efficient nozzle system will make production more efficient while maintaining excellent load parameters. We are glad that India has noticed the power of this solution,"* - concluded Binoy Koshy, the new Managing Director of SECO/WARWICK India

# SECO/WARWICK TO PROVIDE CASEMASTER TECHNOLOGICAL LINE FOR THE RAILWAY INDUSTRY

Voestalpine Fastening Systems, a supplier to the railway industry, has ordered a technological line consisting of two CaseMaster furnaces, three tempering furnaces and two washers. The line will be utilized for hardening processes of steel parts used in railway rolling stock. This is the first cooperation between both partners in this product area. SECO/WARWICK has previously delivered vacuum furnaces to the voestalpine Group.

## A universal furnace with many possibilities

The technological line on order consists of an electric chamber furnace, a washer, a cooling station, and an endothermic atmosphere generator. *"This comprehensive solution meets the Partner's needs. The key aspect in choosing SECO/WARWICK as the solution's supplier, was the result of technological tests carried out in a service hardening plant that the customer was acquainted with. This convinced voestalpine Fastening Systems that we would meet the high requirements of the contract. The line is configured in such a way that if the volume of the company products decreases, the customer can also offer commercial processing due to the wide technological spectrum of this main furnace unit,"* - said Mariusz Raszewski, Deputy Director of the [Aluminum Process](#) and [CAB Furnaces](#) Team at SECO/WARWICK.

The process will be carried out in a controlled atmosphere with temperatures up to 950°C.

Additionally, the technological line includes an electric chamber furnace designed for the heat treatment of steel parts in a protective nitrogen atmosphere at temperatures up to 700°C, along with a washer, cooling station and endothermic generator. The line will include a loader operating in automatic mode, a set of roller tables and a closed-loop water system. The number of the supplied technological line units is selected to ensure the quality of manufactured components.

The whole solution will be supervised by a master system, which is used to continuously monitor the heat treatment equipment operation and provides advanced data analysis for the production processes.



## The railway industry is developing

*"The universal furnace solution will allow to process various parts in various configurations. Apart from technological parameters, it is important for us to limit processed part deformations, which is possible with the solution on order. SECO/WARWICK presented a partnership and flexible approach to the challenges of this order,"* - said Mariusz Fogtman, COO, voestalpine Fastening Systems Sp. z o. o.

Voestalpine Fastening Systems (part of the voestalpine Group) has been a leading manufacturer of rail components for over 40 years. The company produces high-quality fastening systems using modern production technologies. In 2018, SECO/WARWICK delivered a 15-bar [vacuum furnace with high-pressure gas hardening and a retort tempering furnace](#) to voestalpine High Performance Metals.

*"Constant investments in technology development and many years of cooperation with the largest steel producers allow SECO/WARWICK to maintain its leading position among reliable suppliers, meeting the required standards and offering modern solutions,"* - commented Piotr Skarbiński, Vice President, Aluminum Process and CAB Business Segment (ATM).

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