

NEW FURNACE LINE IN OUR PORTFOLIO
ABP ECOLINE SENSIBLY ROUNDS OFF THE PRODUCT RANGE



RESTART OF THE BIG TRADE SHOWS
REPORTS FROM THE USA AND GERMANY

RETROFIT AT VONROLL
AVAILABILITY, SAFETY AND SUSTAINABILITY



Introduction

In one of the previous issues of ABP News I had already mentioned that we would like to push the upswing on the markets with a new product – and now we can finally reveal more: ABP EcoLine is here!

With this, we are deliberately focusing on small businesses and family-run companies, but also on start-ups and development offices that are keen to take the next step and rely on ABP's proven know-how. This solution is also an attractive option for research institutes and training companies. EcoLine sensibly rounds off our portfolio and especially focuses on easy access for our customers: Configure and order via our web configurator, connect after delivery by our own team of technicians – done, melting can start straight away!

We are looking forward to the introduction of ABP EcoLine and are excited about receiving the first feedback from the market.

*With best regards and
Glück auf!
Till Schreiter, CEO*

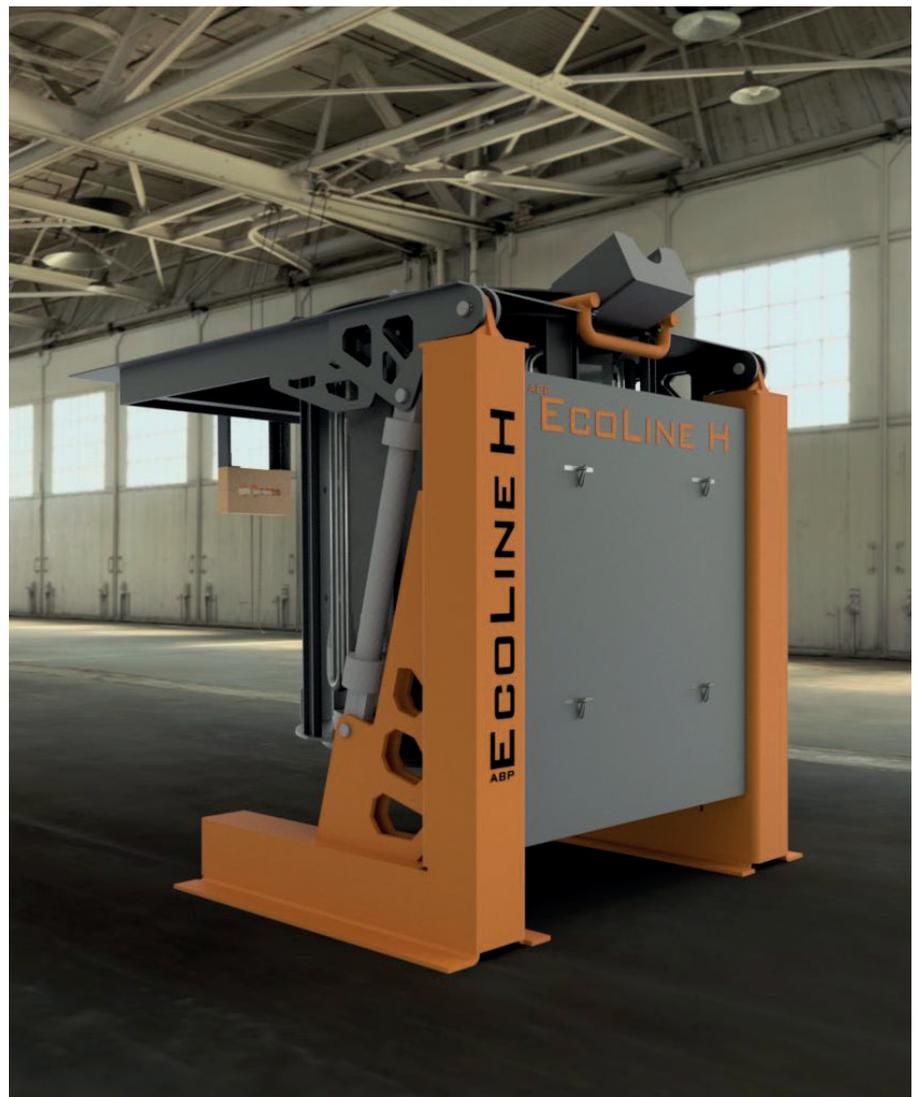
EcoLine: The new entry into the ABP furnace world

Easy to order and install, quick to use: EcoLine provides new entry-level product

ABP Induction presents a new entry into the furnace world: EcoLine is rounding out their portfolio to provide the perfect entry into the foundry market for small companies, research institutes or even engineering offices wanting to set up their own production.

With this move, ABP is targeting customers in countries characterized

by the fact that companies operating in those markets primarily look for an economical solution which offers a balance between a reasonable investment, high reliability, and appropriate production capacities. „These are markets that feature a broad base of small, often family-run operations that require economical solutions for small-scale production with different types





of metals," explains Patrick Lück, Sales Support Engineer at ABP and responsible for the development of the new EcoLine together with Byron McCall, General Manager for ABP in South Africa.

Compact design

It also addresses other target groups that have an interest in small, easy-to-use furnace systems with comparatively small production capacity. „One example might be research and development facilities looking for small systems to produce experimental alloys, or training facilities to train new foundry employees in the basics of metallurgy and furnace operation," explains Byron McCall. EcoLine is also of particular interest to start-ups and engineering firms that want to set up their own production facilities in order to become more independent. „With the development

of EcoLine, we are responding to the wishes of customers from these target groups: quickly available and easy to commission, inexpensive to operate and purchase."

What makes the EcoLine furnace stand out? It is the missing link in ABP's product portfolio that offers exactly these potentials. While there will be some sizes in the 300 to 2,000 kilogram capacity range that EcoLine and the well-known FS series have in common, the requirements and complexity of the systems are different. „EcoLine is based on the proven and well-known FS series, but is implemented in a simplified way for non-specific, cross-industry use. The straightforward design is indicative of what the EcoLine is for: melting!" says Byron McCall.

We have made things particularly simple for customers so that they can get up and running with it as quickly as possible: „EcoLine is modular, so a certain size and performance

range can be covered - and the lead times from order to delivery are very short," explains Patrick Lück. One key feature, he says, is the plug-and-play concept, which allows customers to install and commission the system themselves. „We want everything to be as simple as possible: The customer can put the right furnace together using our web configurator, have it installed by the customer's team of technicians, and also commission and operate the furnace themselves," he says. ABP will make instructions available for this for the customer.

The customer thus benefits from the experience of the entire Group organization: ABP offers a homogeneous, well-rounded melting solution that combines experience and new technologies into a broad-based system. „In the spirit of creating good and lasting relationships with its customers, ABP wants to start this relationship earlier, from the very beginning, so to speak," says Patrick Lück: „Customers who have had positive experiences with their first system will usually take the next step with the same supplier. EcoLine offers great potential for this."

Further information is available at ecoline.abpinduction.com (click image for Download).

To configure your own EcoLine, visit abp-ecoline.com.

ABP EcoLine*
The new entry into the ABP furnace world.
Easy to order, simple to install, fast ready to use.

www.abpinduction.com

ABP PEOPLE. TECHNOLOGY. INDUCTION SUCCESS.

ABP weighs in on the relaunch of major U.S. trade shows

Strong show presence at CastExpo, AISTech and World Foundry Summit

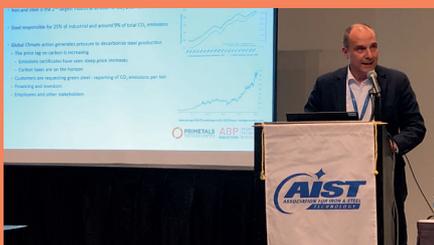
Upbeat mood at the international trade shows for the metalworking industry: at the perceived restart of the CastExpo, AISTech and World Foundry Summit events in the USA, ABP made its strong presence felt – with technical presentations, interactive exhibition booths and a world premiere of the new EcoLine product line.

Things got underway at the end of April 2022 with **CastExpo** in Columbus, Ohio. This is the largest and most important trade show and industry event for metal casting in North America. 450 exhibitors were represented at the Greater Columbus Convention Center, and

more than 5000 visitors attended the four days of trade show and convention. ABP was there with a powerful team to showcase its broad portfolio at its booth, from its furnaces, machines and systems to its ideas and solutions for foundry digitization and ABP's smart service solutions for foundry operators, known as C3 Circle of Service. Chris Carstens, David Decker, Ray Gilli, Chris O'Connor, Jonathan Parker, Bill Ulrich, Yilmaz Yildir, Guilherme Viana and ABP President Till Schreiter were on site and also had a world premiere in tow. They presented the new EcoLine product line from ABP. With the downward expansion of the portfolio, ABP



Strong discussions at CastExpo in Ohio: the ABP team presented the C3 service concept and the EcoLine – the new product range designed for entry into the foundry market. Top: Bill Ulrich and Jonathan Parker at the ABP booth.



At AISTech in Pittsburgh, besides having a booth, ABP was also present with various presentations. Dr. Marco Rische, David Decker and Markus Hagedorn show the certificates of the organizer.

Dr. Marco Rische gave talks on the highest yield and lowest processing costs for the industrial stainless steel sector. They also addressed the applicability of CO₂-neutral induction furnaces for long rolling operations. An additional focus was on the discussion of sustainable steel production through the integration of induction furnaces. In addition to the two speakers, David Decker, Jonathan Parker and Chris Carstens were at AISTech for ABP, and Denis Vaillancourt, Gerald Wimmer and Krzysztof Pastucha from Primetals also were there to provide support. Dr. Marco Rische, Director System Business, drew a positive conclusion at the end: „The fair had reached a scale similar to that before the coronavirus pandemic, and there were also many good discussions with the fairgoers. Moreover, we were able to make important statements for the development of the steel industry through these presentations.“ 8100 visitors met on site in Pittsburgh, and a total of 525 exhibitors were present.

now offers the perfect entry into the foundry market for small companies, research institutes or even engineering firms that want to set up their own production. David Decker, Vice President ABP Induction, LLC, drew a positive conclusion of the event: „Even though there were slightly fewer visitors on site than in 2019, our presence as Platinum Sponsor was definitely worthwhile. We had the opportunity to engage in high-level discussions with decision-makers – that was crucial for us.“ The team was able to discuss many projects with the fairgoers – follow-up visits have already been arranged. The next highlight was the **World Foundry Summit** in New York City

in early May 2022. At the WFO, experts meet to discuss trends and developments in the foundry industry. ABP was there as a supplier sponsor, represented by Dr. Marco Rische and ABP President Till Schreiter. Lastly, in mid-May 2022, **AISTech** took place at the David L. Lawrence Convention Center in Pittsburgh, Pennsylvania. At the trade show, ABP attended with its own booth in close proximity to Primetals and with three technical presentations. Both at the booth and in the presentations, ABP focused on the „Green Steel“ label, which brings together the megatrends of digitization and decarbonization. For instance, Markus Hagedorn and

With modernization at VONROLL CASTING, ABP shows what is possible with Retrofit

Perfect custom solution for higher availability of the plant, more occupational safety and a high degree of sustainability

ABP Induction has been awarded the contract for the extensive modernization of a foundry at VONROLL CASTING, a leading European supplier of complex, thin-walled and core-intensive castings. The order is an impressive example of how useful retrofits to existing systems can be and of the advantages they offer in terms of system availability, occupational safety and sustainability. With the implementation as early as during the summer inspection, ABP Induction once again proves how flexibly and quickly ABP can react to specific project requirements and implement them promptly and competently. The placement of the order by VONROLL has a clear statement: Even in times of Covid, investments are still being made in the industry – to be prepared for the future.

VONROLL CASTING is a customer foundry operating throughout Europe with headquarters in Emmenbrücke. The company has its own engineering center with integrated pattern making and post-processing. VONROLL CASTING maintains and masters a wide range of materials from cast iron with lamellar and nodular graphite to special alloys such as SiMo, Ni-Resist and bainitic cast iron.

Following the complete rebuild of the molding line a few years ago, the aim was now to realize an increase in the performance of the melting operation. VONROLL CASTING decided on a retrofit project of the existing plant. ABP Induction was chosen for several reasons: First, the engineers and technicians of ABP made a convincing case

with a coherent concept. Here, no standard was required, but a flexible orientation based on the customer, the structural conditions on site (relatively low room height for a given area and use of the existing connections) and the implementation during the annual inspection work in the summer of 2021.

Additional arguments in favor of the retrofit were the extremely short delivery times that ABP was able to guarantee, as well as the stocking of spare parts, since the same spare parts can be used as for the existing plants. The retrofit is accompanied by a further improvement of the operational safety standard. For instance, the grounding of the melt is automatically tested with a patented ABP technology. Additionally, the single circuit cooling water monitoring system was redesigned and monitored with ABP OptiStream – an innovative system for analog cooling water monitoring of the DC link smoothing reactors as well as the single circuit monitoring in the converter.

Reduce scrap values

It was also important for VONROLL CASTING that the warning thresholds can be adjusted directly and easily on the unit as required and that deviations (e.g. temperature exceeded or flow rate undershot) are detected and reported instantly. With ABP retrofit, these requirements are met and VONROLL CASTING will be able to further reduce its already outstanding reject values. During the daily walk around the converter room, the current measured values



for flow rate and temperature recorded by ABP sensors can be read out directly.

During the individual circuit monitoring with ABP OptiStream, the intelligent IO-Link sensors directly communicate with the higher-level automation system. This allows processes over a long period of time to be displayed, stored and evaluated in the Prodapt® Enterprise melt processor – a central basis for the success of the predictive maintenance philosophy that has been cultivated at VONROLL CASTING for many years now. What's more, the system can be diagnosed remotely – ideally via the innovative myABP portal and ABP Intelligence. myABP is the digital platform through which users can monitor their systems -- seamlessly, across all manufacturers and machines. Maintenance planning and service – history can be viewed product by product. All machines can be set up in detail so that individual support can be precisely coordinated – including a web shop connection for spare parts. The calendar function provides a convenient way to view maintenance schedules. This not only makes the operating data visible, but also the dates when the machines and systems are not available for maintenance reasons. This efficiently supports personnel and production planning at VONROLL CASTING.

Retrofit package at a glance

What exactly does ABP supply in terms of technical systems and solutions? In construction phase 1, which was realised in summer 2021, a Thyristor TwinPower converter with 4.2 MW was installed on the existing furnace system with 2 x ITMK6R as a replacement for a SinglePower converter with furnace current switching. The TwinPower operation has since eliminated the need for maintenance work on the furnace current changeover as well as the associated switching times due

to the changeover of the melting furnaces. This has increased the overall efficiency and productivity of the plant.

For this purpose, TwinPower converters, condenser frames and cooling system were adapted to the existing plant and a melting processor was realized on a virtual machine, which ensures high availability of the system. A pump station with frequency converter and analog measured value recording reduces the power consumption and enables evaluation of the analog data with the ProfiNet interface in the melt processor. Also included in the scope of delivery as standard is a conductivity measurement and automatic switchover to a second pump after defined operating hours. Recooling monitoring is realized with magnetic inductive sensors to provide analog values.

Training in the Virtual Academy

The new converter control DICU3 is also used with the new converter, with all its advantages and connection to the digital world. The parent company of the VONROLL CASTING Group operates its own Digital Group and is well aware of the relevance of the new possibilities. ABP's digital competence was consequently an important factor in the decision for the selected retrofit program: The training of the operating and maintenance personnel is carried out parallel to the commissioning via the ABP Virtual Academy, i.e. contactless, independent of location and time via ABP's innovative and already award-winning training and further education concept. The ABP Virtual Academy offers two types of training: ABP Virtual Training and ABP Virtual Classroom. In the ABP Virtual Classroom, customers work with a digital twin of the furnace systems. Participants gain comprehensive product and process knowledge without having to waste precious time traveling,



which makes the training more cost-effective and efficient.

The installation of all components was supervised by an ABP site manager. The installation was carried out by the customer himself, which meant another cost saving for the customer. Commissioning was then carried out by ABP Field Service.

In construction phase 2, the existing furnace cooling system will be replaced by a temperature-controlled furnace cooling system with frequency-controlled pumps in summer 2022. The flow of water will then be adapted to the power-dependent cooling demand, enabling a constant temperature level, energy savings and more efficient use of heat recovery. Here, the analogue signals from the new recooling monitoring system are evaluated.

Strong presence at the Foundry Day

ABP Safety packages for increased safety in foundries make their debut

Trade show activities also kick off again in Germany: ABP showed a strong presence at the German Foundry Day in Münster – and, as in the USA, had a world premiere along: The ABP Safety Packages, which bundle various safety features for foundry operations, were presented for the first time.

The Basic and Advanced packages were shown at the booth in the center of the exhibition area. Lutz Walther, Dr. Marco Rische, Roland Gorny, Florian Schöne, Yilmaz Yildir and Markus Fournell were also present and came to a positive conclusion: „For many, the focus was on reuniting for the first time after the pandemic, and the Foundry Day showed how important personal interaction is,” says Dr. Marco Rische.



The ABP team was on site with a large trade fair booth. There were many places where visitors came to engage in talks, such as with Dr. Marco Rische on the right or with Yilmaz Yildir below. Dr. Erwin Dötsch also stopped by at the Foundry Day (left).



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