

# DigiSVC®

## Static VAR Compensator (SVC) - Optimize Your Steelmaking Efficiency

AMI Automation, now part of Resonac, is a global leader in automation and control solutions. We specialize in designing, manufacturing, and implementing innovative technologies to enhance process efficiency across industries such as steel, mining, cement, pulp & paper, and oil & gas.

### Unleash the Full Potential of Your Electric Arc Furnace

Our Static VAR Compensator (SVC) is engineered to enhance the performance and efficiency of AC and DC electric arc furnaces (EAFs) while ensuring compliance with power utility requirements. By stabilizing voltage and optimizing power flow, it reduces melting time per heat, enabling greater steel output with precision and consistency.

With decades of expertise, we ensure seamless operation and long-term reliability, whether implementing a full SVC system or upgrading an existing one. We specialize in retrofitting and integrating SVC systems across all brands, providing solutions designed to maximize efficiency, minimize downtime, and keep your operations ahead of evolving demands.

### Advanced Power Optimization

- ▶ **Outer-loop PF regulation + Inner-loop single-phase correction:** Enhances power factor correction, reducing flicker and improving stability.
- ▶ **High-Speed Trending & Enhanced Diagnostics:** Provides real-time system monitoring for quick and accurate fault diagnosis, minimizing downtime.
- ▶ **Short Circuit Current Measurement:** Delivers strategic insights into grid behavior, optimizing power management.

### Seamless System Integration

- ▶ **Digital Twin Technology:** Pre-tuned equipment enables predictive maintenance and a smooth startup process.
- ▶ **LTTs & ETT Gating:** Ensures compatibility when retrofitting existing SVCs, making it adaptable for any technology.
- ▶ **SMART SVC:** Optimizes steel production by stabilizing power flow and improving overall energy efficiency.

### Versatile & Future-Ready

- ▶ **Universal Compatibility:** Works with any existing SVC system, making upgrades seamless.
- ▶ **Extensive Parts Inventory:** Uses standardized components across multiple solutions, ensuring easy access to spare parts.
- ▶ **Enhanced Troubleshooting:** Advanced diagnostics simplify maintenance, reducing operational disruptions.

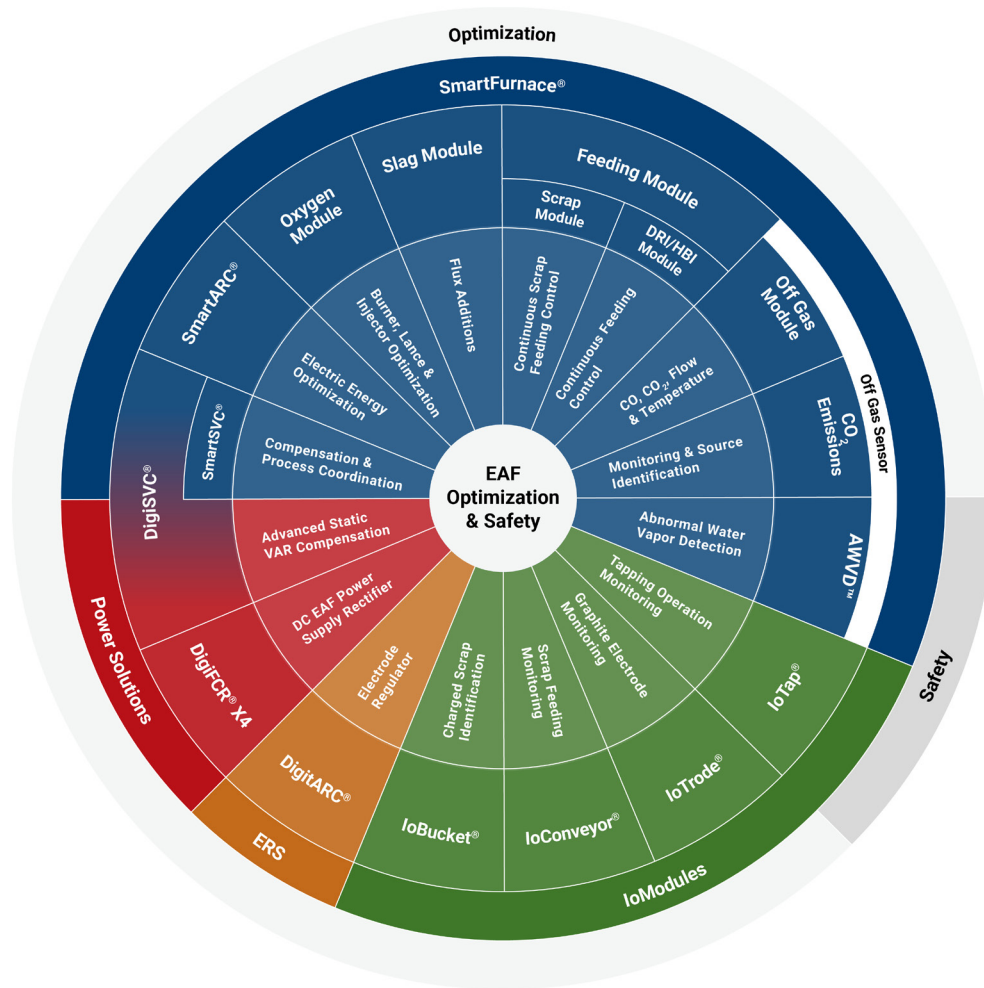


## Seamless Integration with DigitARC® PX3 & SmartFurnace®

Our SVC is designed to work natively with DigitARC® PX3 and SmartFurnace®, enhancing arc stability for a smoother and more efficient operation.

Beyond voltage stabilization, our SVC technology is a strategic investment in operational excellence, optimizing startup processes, preventing costly interruptions, and providing real-time insights into grid behavior. Backed by a dedicated team of experts and comprehensive support services, we ensure reliable performance and continuous operation for your steelmaking process. Contact us today to learn how our SVC solutions can optimize your operations.

## Electric Arc Furnace Optimization & Safety



## Electrode Regulation System (ERS)

The DigitARC® PX3 Electrode Regulation System is the core of AMI's EAF optimization solutions. With over 35 years of expertise and implementation in 250+ Furnaces worldwide, it delivers proven reliability and efficiency for even the most demanding EAF and LF applications. Our advanced electrode control technology ensures optimal arc stability, real-time performance monitoring, and seamless operator interaction through an intuitive interface. Today, more than half of the EAF steel capacity is melted with the AMI regulation systems.

## SmartFurnace®

The SmartFurnace® System enhances productivity and reduces energy use per ton of steel. As an advanced AI-driven expert system, based on the SmartKnB® platform developed by AMI, it dynamically adjusts electrical and chemical energy inputs based on real-time heat conditions. Recognizing that every EAF is unique, we provide the tools and expertise needed to optimize performance. With a modular design, the system adapts to specific operational needs, while its open architecture allows for seamless customization, ensuring maximum efficiency and control.

## IoModules

Advanced solutions for monitoring and controlling critical aspects of the steelmaking process. Built on the SmartKnB® graphic development platform, they provide seamless customization within an open, user-friendly architecture. By integrating AI, Machine Learning, and Image Processing, these modules accelerate digitalization, improving efficiency, safety, and overall process optimization for the steel industry.

## Power Solutions

We provide power electronic solutions that play a key role in enhancing Meltshop performance. The DigiFCR® X4 is our Firing Circuit Replacement system, designed to fully upgrade the controls of existing DC EAF power rectifiers. It improves current regulation while also extending protection for the furnace. Meanwhile, the DigiSVC® is our advanced Static VAR Compensator that stabilizes voltage, improves power factor, and compensates for reactive power in industrial electrical systems. Both solutions can be delivered with new power electronic hardware or as retrofits for existing systems, regardless of the original manufacturer.

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