

Market Leader in Air-Core Reactor Technology

# **COIL INNOVATION**

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Coil Innovation specializes in the development, manufacture and sales of air-core, dry-type reactors for electric power transmission and distribution systems as well as for electrical power plants.

The company was founded in July 2004 as a private limited company (GmbH) by a uniquely qualified team of electric power industry experts, who brought with them a vast wealth of experience and an extensive knowledge about power reactors. In 2004, modern production facilities were built in Eferding, located in the heart of Upper Austria. Since then, to meet the growing demand for Coil Innovation's power inductors, the company significantly increased plant capacity. The facilities now house approximately 5.000 m<sup>2</sup> of production area and 1.000 m<sup>2</sup> of office space.

#### **Coil Innovation Facilities**

in Eferding, Austria



Innovation and quality are the key elements of the Coil Innovation strategy as evidenced by its advanced reactor design process and revolutionary, patented winding production technology. To achieve precise reactor design dimensions, an "online" feedback loop has been integrated into the winding process which monitors the actual wound length of each winding layer while adjusting the conductor dimensions in real-time. The results are extremely low inductance tolerances and an optimum current and temperature distribution in each of the individual parallel winding layers.





# PRODUCT PORTFOLIO PRODUCT PORTFOLIO

Coil Innovation is gaining global recognition by having its air-core reactors successfully installed and energized in all of the major application segments for markets around the world.

- Current Limiting
- Load Flow
- Bus Ties
- Neutral Grounding
- Harmonic Filters
- Shunts
- HVDC
  - »HVDC Smoothing
  - »AC & DC Filters
  - »AC & DC PLC Noise Filters
- Static Var Compensation (SVC) and Series Compensation (SC)
  - »Thyristor-Controlled Reactors (TCR)
  - »Damping for Thyristor-Switched Capacitors (TSC Reactors)
  - »Harmonic Filters
  - »SC Damping (HV Capacitor Discharge Reactors)
- Voltage Sourced Converters (VSC) for HVDC and SVC
- DC Smoothing for Industrial Applications
- Electric Arc Furnaces
  - »EAF Series Reactors
  - »Off-Load Tap Changers
- **Power Line Carrier (PLC) for Power System Communication (Line Traps)**
- Test Labs









# QUALITY-SAFETY-CONSERVATION QUALITY-SAFETY-CONSERVAT

#### Before delivery, every single reactor is rigorously tested in Coil Innovation's modern, high-voltage laboratory.

In addition to the measurement of technical key parameters, such as inductance, resistance and losses, using precision measuring instruments, the reactor's dielectric strength is examined. Lightning impulse tests or discharge duty tests with repetitive capacitor discharges are carried out in accordance with the applicable ANSI or IEC standards.

The lab comes complete with an adjustable power supply, a modularly-structured capacitor bank and fiber-optical temperature sensors used to measure the winding temperature rise of the reactors under full-load conditions. For testing DC reactors, Coil Innovation has a direct-current testing facility as well.

A comprehensive testing program alone cannot guarantee quality. Coil Innovation employees are committed to maintaining the highest quality attainable throughout all stages of planning, engineering and manufacturing.

Coil Innovation is built on an effectively integrated management system, which has been certified according to:

ISO 9001: 2008 Quality Management System,

OHSAS 18001: 2007 Occupational Health and Safety Management System

ISO 14001: 2004 Environmental Management System



#### **Recent Innovations**

The ever growing demand for electrical equipment with extremely low sound emissions has prompted Coil Innovation to make significant investments into the development of low-noise reactors and modern acoustic measurement tools. This investment yielded two major accomplishments - a revolutionary sound mitigation technology and a new sound measurement test laboratory.

In Coil Innovation's specially designed acoustic laboratory, power harmonic current sources are generated to simulate operational loads, thus enabling accurate, reliable acoustic measurements.







# MISSION STATEMENT

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## We are focused on the needs of our customers.

We assist our customers to increase their competitiveness.

## We aim for innovation and quality.

We maintain a distinctive culture of innovation in our company.

# We operate economically.

We are results-oriented and strive for sustainable value enhancement.

# Our potential is in our employees.

We see our company not just as an organization, but as a living organism.

#### We embrace continuous improvement and learning.

We benchmark ourselves against World Class manufacturers.

# We take responsibility for protecting the environment.

We don't just talk about protecting the environment.

We live environmental protection throughout our company.





345 kV Current Limiting Reactors (South Korea)

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Your local contact:					





Headquarter:

Coil Innovation GmbH Nikola-Tesla-Straße 1 4070 Eferding AUSTRIA

Phone: +43 (7272) 75200 Fax: +43 (7272) 75200 - 100 Email: sales@coilinnovation.at **US Operation:** 

Coil Innovation USA, Inc. 125 Edinburgh South Drive, Suite 201 Cary, NC 27511 USA

Phone: +1 (919) 659-0300 Fax: +1 (919) 234-0188

Email: rick.kimball@coilinnovation.com