



Impregnation systems for electrical engineering

IMPROVING YOUR PERFORMANCE

Improving your Performance

Meier Prozesstechnik GmbH

For more than 40 years, Meier Prozesstechnik GmbH has been constructing, building and assembling plants for the impregnation of electrical components in vacuum-, vacuum pressure- and atmospheric processes. The product range spans from small manual plants for laboratory applications to fully automatic impregnation plants for production purposes.

Our long-term experience in these process technologies guarantees that after targeted consultancy, all our customers receive the desired technology in a jointly developed plant concept.

We comprise the know-how to develop and manufacture impregnation plants for resins and varnishes of all brands. All our plants comply with the most recent EU-safety regulations and include the CE declaration of conformity.

Impregnation process

- Atmospheric impregnation (AI)
- Vacuum impregnation (VI)
- Vacuum pressure impregnation (VPI)





Equipment type

Equipment type AI (*Atmospheric impregnation*)

Electrical components that allow for an intrusion of impregnation media are treated atmospheric. By subsequent curing of the resin after impregnation, the necessary mechanical stabilisation of the strands and components is achieved. Furthermore, the corrosion protection is improved.

Equipment type VI (*Vacuum Impregnation*)

Components that are likely to cause air pockets due to their geometrical form or insulation structure are treated under vacuum. By the applied vacuum, the resin can intrude much better into cavities and inclusions of moisture are prevented in both, component and impregnation system.

Equipment type VPI (*Vacuum Pressure Impregnation*)

In the range of high voltage applications, the electrical conductors are covered with several layers of insulation tape that need to be soaked completely with the insulating resin. To achieve this, pressure is applied to the impregnating vessel after the vacuum to fill the remaining dead storage completely, especially inside the insulation. The demand on the impregnation degree increases with the voltage of the electric machine.

In vacuum or vacuum-pressure processes, the gaps between electric sheets are filled with resin, which is why this process is interesting for low voltage applications and transformer impregnation, as well.



Technology centre

The Meier Prozesstechnik technology centre is located close to the manufacturing areas and comprises state-of-the-art impregnation systems and drying facilities. This allows us to jointly develop our customer's processes and produce prototypes.

We offer to carry out trial runs with test models or with components in manufacturing size.

Frame parameters of our plants:

VI or VPI plant

Impregnation plant:

- Diameter: 2500 mm
- Cylindrical length: 3000 mm
- Max. pressure: 10 bar
- Min. pressure: 0,1 mbar abs.
- Temperature: max. 160 °C

Max. object dimensions:

- Diameter: 1400 mm
- Even wider objects are possible if they are not square.
- Length: 2500 - 3000 mm

Resin storage tank for 200 l and 4000 l

- Temperature: min. -5 °C/ max. 80 °C

The whole plant is explosion-proof. The process overpressure can be complemented with compressed air or nitrogen.

Chamber dryer

- Temperature: max. 300 °C
- Special features: rolling hardening

Joinly, we will find the process suitable for your application.

Electrical engineering system solutions



Impregnation systems for generators, motors and transformers

For manufacturers and repair shops

System service:

- Design and development
- Manufacturing
- Assembly and manufacturing
- After Sales Service

Meier Anlagenservice GmbH

- Service workshop
- Repairing of vacuum pumps
- Spare parts
- Maintenance

Meier Prozesstechnik GmbH

Vennweg 8
46395 Bocholt - Germany

Tel.: +49(0)2871 21927-0
Fax: +49(0)2871 21927-30

info@meier-prozesstechnik.com

www.meier-prozesstechnik.com

