



VACUUM PRESSURE IMPREGNATION EQUIPMENT



At a glance:

VACUUM PRESSURE IMPREGNATION EQUIPMENT

For non-porous impregnation of most different components with an impregnating medium, HEDRICH supplies the appropriate customized equipment ranging from compact systems to complex solutions with additional components such as stirrer and cooling coils, exhaust devices or capacitance meters to control the impregnation.

The process is frequently used for electric components to ensure their electrical and mechanical properties. Here the vacuum pressure impregnation (VPI process) offers significant advantages compared with the impregnation at atmospheric pressure (immersion process). So the VPI process guarantees that all pores and the surface of the component are uniformly and completely wetted with impregnating medium and air inclusions are avoided.

ADVANTAGES OF THE VACUUM PRESSURE IMPREGNATION SYSTEMS

- For different impregnating media with varying viscosities
- Improved heat transport
- Noise reduction through avoidance of vibrations
- Enhancement of electrical and mechanical properties





Vacuum Pressure Impregnation (VPI Process)

Depending on the application and customer requirements, HEDRICH builds optimum equipment solutions for vacuum pressure impregnation. For this purpose, insulating media such as varnishes, oils, resins and waxes are used for non-porous impregnation of most different components. The parts to be impregnated are degassed and dried under vacuum and then impregnated with pressure application.

ADVANTAGES OF VACUUM PRESSURE IMPREGNATION (VPI)



- Customized and complex solutions available
- Simple design using pressure difference
- For different impregnating media with varying viscosities
- Improved heat transport
- Noise reduction through avoidance of vibrations
- Equipment versions with heating/cooling, feeder pump and measurement technology
- Enhancement of electrical and mechanical properties

→ COMPLEX SOLUTIONS

Depending on the requirements, the systems for vacuum pressure impregnation are provided with additional components such as e.g. stirrer, cooling coil, exhaust devices or capacitance meters to control the impregnation.



→ TRANSPORT BY FEEDER PUMP

The impregnating medium can alternatively be transported by a feeder pump from and to the impregnating vessel. An option is to additionally heat up the impregnating medium in the supply pipe and to cool it down again in the return pipe thus allowing to adjust the viscosity.



→ SIMPLE CONVEYANCE BY PRESSURE DIFFERENCE

Impregnating systems with transport by pressure difference are used when the impregnating medium does not need to be heated up. In most cases, the transport is performed under vacuum.



→ COMPACT SOLUTION

Compact systems can be used to impregnate small parts. In such cases the storage and impregnating tanks are arranged on top of each other. The impregnating medium is transported by pressure difference / gravity.



APPLICATIONS

- Transformers
- Motors
- Generators
- Sintered metal parts
- Cast metal housings



HEDRICH GROUP

Greifenthaler Straße 28 | 35630 Ehringshausen-Katzenfurt | Germany

T +49 6449 929-0 | F +49 6449 929-149 | hedrich@hedrich.com

Further information

→ www.hedrich.com



PROGRESS

is feasible.