ONSITE TRAINING – BASICS OF HYDROFORMING TECHNOLOGY – ENHANCED DESCRIPTION

Onsite Training | 2 Days

Maximize Process Efficiency – Precision Training at Your Facility

For more than 30 years, hydroforming technology has been a highly reliable and widely applied manufacturing process, especially within the automotive industry. As modern mobility evolves and traditional powertrain applications disappear, hydroforming is becoming increasingly vital for producing robust, lightweight chassis components and structural reinforcements for innovative electric vehicles.

Target Audience

This course is ideal for dedicated engineers, skilled technicians, and motivated operators working in production, maintenance, process planning, or toolmaking who want to deepen or refresh their technical expertise.

Your Benefits – Practical, Powerful, and Performance-Oriented

In this comprehensive and theoretically enriched training, participants gain a solid and clearly structured foundation in hydroforming technology. You will learn about essential tooling concepts, advanced machine equipment, intelligent component design strategies, and relevant process limitations.

Learning Methods

Leading Insights delivers a highly focused, practice-oriented, and economically insightful knowledge transfer through engaging seminar lectures and hands-on field demonstrations using real samples. Our exceptionally qualified trainers are seasoned experts and influential key players in the global hydroforming and PHS market.

Course Content

T1: Fundamentals

This introductory module provides a clear and accessible overview of the fundamental principles of hydroforming, building a strong understanding of:

- Core hydroforming concepts
- Key process technology boundaries
- Typical and efficient process chains

T2 – Component Design and Method Planning
This highly illustrative unit explains how to design a robust hydroforming component and develop smooth, reliable production sequences for successful series manufacturing:

- Geometric and material-based limitations
- Typical process flow: bending, preforming, hydroforming, trimming
- Integrated piercing operations
- Critical quality factors and achievable accuracy levels

T3 – Tooling
A deeper look into essential tooling requirements for hydroforming applications:

- Detailed design elements of major tool components
- Tool steels, advanced coatings, and surface technologies
- Hydraulic systems and active tool functions
- Tool loads, expected lifetime, and smart maintenance strategies
- Interaction between tools and hydroforming machines (control systems, connectors, interfaces)

T4 – Summarization

- Comprehensive recap of all training modules
- Open FAQ session
- Participant feedback and discussion

Bring clarity to complexity, turn know-how into productivity, and unlock the full potential of your production line.

"Learn when, where and what you want! Sounds tempting, we support your needs…"

Christian Kovacs