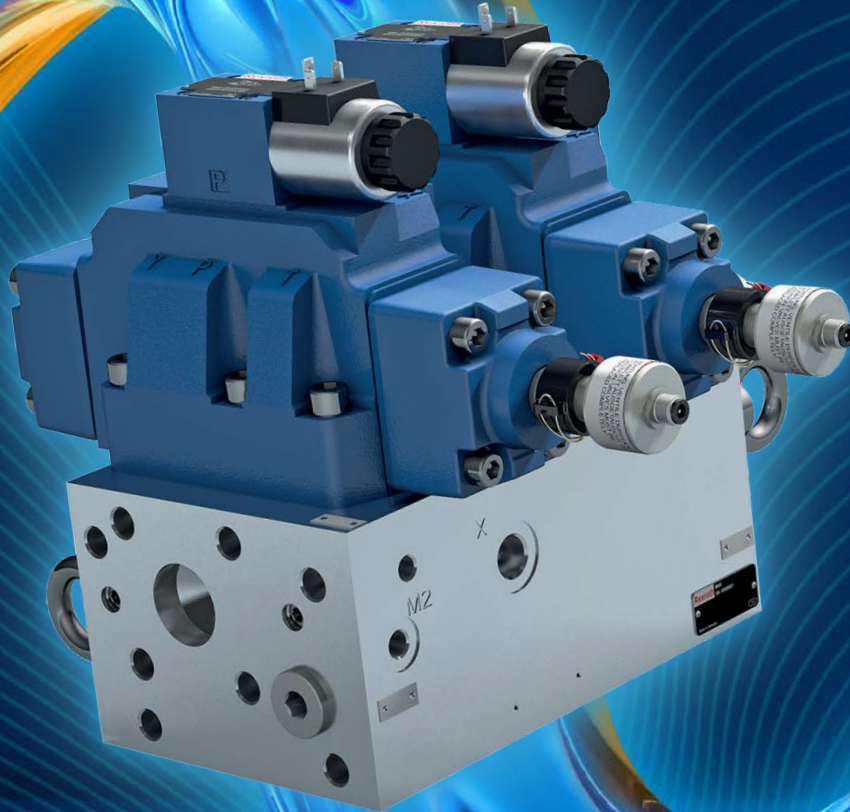


# Modern Safety for Legacy Machines



## How Retrofit Manifolds Bridge the Compliance Gap

**Upgrading existing hydraulic presses to meet current safety standards without a complete system overhaul.**

For owners of existing hydraulic presses, meeting modern safety standards like EN ISO 16092-3 or EN ISO 13849-1 with Cat4 rating can seem like an impossible task. This whitepaper explores how standardized retrofit modules provide a practical, certified pathway to compliance, extending the life and value of legacy equipment.

The industrial landscape is filled with proven, reliable hydraulic presses that have been operating for decades. While mechanically sound, their original safety systems often fall short of today's rigorous standards. This creates a critical challenge: how do you upgrade safety without incurring the massive cost and downtime of a full machine replacement?

## THE RETROFIT PROBLEM

Retrofitting safety functions onto an existing press is notoriously difficult. It often involves a patchwork of custom-engineered components, complex on-site validation, and a significant amount of guesswork. Operators face numerous problems:

- Sourcing individual components that may not be designed to work together.
- A lack of clear certification pathways for custom-built solutions.
- Extensive machine downtime for installation, testing, and troubleshooting.
- High engineering costs for designing and documenting a one-off system.

This piecemeal approach is not only expensive and time-consuming, but it can also introduce new points of failure, undermining the very safety it aims to achieve.

## A STANDARDIZED SOLUTION FOR EXISTING PRESSES

The IH04N Retrofit Manifold was engineered specifically to solve this problem. Instead of a custom-built puzzle, it offers a pre-engineered, single-block solution that adds essential safety functions to legacy machines.

The integrated design delivers:

- A certified safety core: Meets key requirements of standards like EN ISO 16092-3.
- Simplified installation: Drastically reduces the complexity of upgrading a press.
- Predictable performance: All components are designed and tested to work together.
- A clear path to compliance: Backed by Bosch Rexroth's engineering and documentation.

## KEY SAFETY FUNCTIONS, INTEGRATED

The IH04N isn't just a block of metal; it's an intelligent integration of critical safety features that older presses often lack:

- Unintended Movement Protection: Prevents the press ram from lowering unexpectedly under its own weight, a primary hazard during setup and maintenance.
- Safe Stop and Hold: Ensures that when a stop is triggered, the dangerous closing movement is reliably halted and held in position.
- Controlled Start-up: Avoids sudden, unintended machine activation from a resting state.

By consolidating these functions into a single, proven manifold, operators can address the most significant safety gaps in their existing equipment with one solution.

## THE REAL-WORLD IMPACT

The traditional retrofit process for a single press can take weeks of engineering and installation. With a standardized module like the IH04N, that timeline is dramatically reduced. Consider a machine shop with a fleet of 15-year-old presses. To meet a new customer's safety audit, they faced the choice of either replacing the machines or attempting a costly custom upgrade. The IH04N provided a third option: a predictable, repeatable upgrade path.

The result:

- Installation time was cut by over 70% compared to a component-based approach.
- Engineering costs were virtually eliminated, as the solution was pre-designed.
- Certification was streamlined, using the documentation provided with the manifold.

The shop was able to bring its entire fleet into compliance in a fraction of the time and cost, extending the productive life of their capital assets.

**Extending the life of valuable legacy equipment while ensuring operator safety is one of the smartest investments a business can make. Standardized retrofit manifolds like the IH04N make this possible, transforming a complex engineering challenge into a manageable, cost-effective upgrade. It's not just about compliance; it's about making trusted machines safer and more productive for years to come.**

**Looking to upgrade your existing presses? Contact a Bosch Rexroth specialist to see if the IH04N is the right solution for your equipment.**



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