curing presses powered by *passion*.





your reliable partner for your tire manufacturing process.

For more than 165 years, HF, located in Hamburg, Germany, has always focused on engineering, dedicated solutions, and integrated production resulting in reliable equipment with process know-how.

Since 1855, HF has focused on delivering customized solutions to the tire industry, and today delivers a complete portfolio of tire manufacturing equipment worldwide! Our global customers are using their long-lasting HF equipment to produce high performance and quality tires under the most efficient and cost competitive conditions.

HF is fully owned by the L. Possehl & Co. mbH, a group of over 150 medium-sized industrial companies located around the world. Each company is encouraged to preserve and maintain its unique identity and to continue to develop independently within the Possehl Group. As a successful and diversely positioned group the Possehl name stands for entrepreneurship, tradition, and responsibility (since 1847).

An important part of our company's culture is the Possehl Foundation. The Possehl Foundation was created upon the passing of Emil Possehl (son of the original founder of the Possehl Group) in 1919. His last will & testament formed the foundation to ensure that attention would continue to be paid to the improvement of the community, historical buildings, and to the education of young people.

HF is proud to be part of the financially stable and socially responsible Possehl Group.

> engineering excellence powered by passion.



Are you looking for high performance from a proven supplier for your curing needs? The HF TireTech Group is the world's leading and most innovative curing press manufacturer and is the right partner for you!

From the first clarifications regarding your specific needs, through the order process and during manufacturing, installation, and commissioning of your curing presses, our team of sales representatives, engineers, project managers and service people are always there for you. Our expertise is based on more than 5,000 delivered curing presses around the world.

Our project team will review your requirements and find the right fit for your application from our various hydraulic curing presses, PCI's for new presses or for retrofitting on most of your existing presses, as well as other potential improvements for your curing room. We base our designs on a combination of a modular and customization approach to make sure your basic specifications, as well as specific plant requirements are always met.

Features & Benefits

The combination of our long history of designing and delivering curing presses based on innovative German engineering provides your tire operation with many benefits. Here are just a few of them:

- Main locking and squeeze components are outside of the heated area.
- Combined function of the column includes guiding, squeezing, force absorption, mold height setting, etc..
- Achieves optimal tire concentricity.
- Press availability at benchmark level.
- Straight and angle type press designs available to meet your different space requirements.
- Reduced wear, longer press life, improved cycle time, and uniformity.

- Easier to maintain due to improved access to the important areas of
- Proven energy saving systems according to customer requirements.
- Use of known and tested components.
- Built according to the latest safety, environmental, and manufacturing requirements.
- Vast experience with greenfield projects in all regions of the world.

common design approach.

The fundamental basis for our press design, no matter which size press you are looking for, is the same. All presses consist of our long proven column design with squeeze and locking system and are sized according to your specifications. Depending on your plant requirements, we offer both common and independent controlled presses. All presses can then be built up modularly to include the required center mechanism & SMO, loader and unloader chuck, green tire stands, cooling conveyors with or without PCI and associated safety items. Hydraulic power units can be provided as 1:1, 1:2 or as a "group" system for larger number of presses. Heating systems for various media types are provided either according to your schematic or can be customized by our engineers. Additionally, we will work with you to optimize your green tire handling, including automatic tire handling systems.



36" Curing Press

Press for 2-wheelers, scooters, mopeds, 3-wheelers, etc.
Complete solution combines the press with HF Stack PCI for bias/radial tire types.



46-52" Curing Press

Press range for passenger car (PCR), light truck tires and all-terrain tires. High performance tires such as run-on-flat, motorsport, etc.

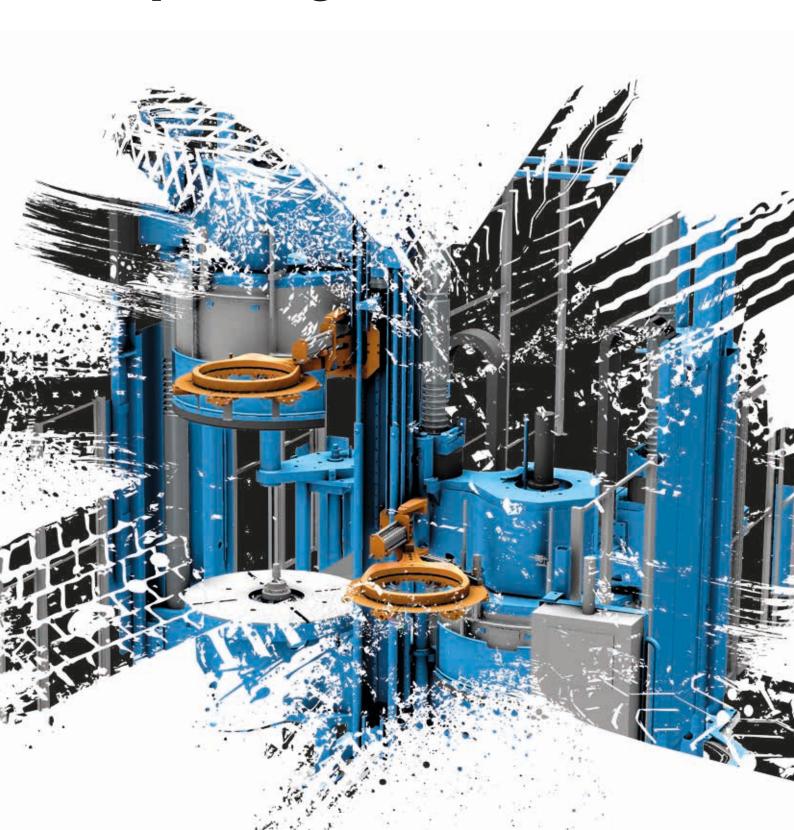


67" Curing Press

Press for truck & bus radial tires (TBR)

12 Manufacturing Center

hydraulic press (PCR) for passenger car tires



HF Curemaster (TBR) for truck & bus radial tires



profiles are unique. we design to meet your needs.

Descriptions & Details

- Easy access to the press and PCI for operation and maintenance needs.
- SMO systems from manual to fully automatic.
- Safety concept customized as per local requirements (incl. latest European C-Norm).
- Same hand loader/unloader chucks designed for simple and quick alignment.
- Column locking and squeeze mechanism provides optimum forces during the tire curing process.
- · Cooling conveyor for multiple tires. Customized designs according to your requirements.
- · Center mechanism: bag-in-well and standing post designs, including pitless design.
- Hydraulics including proportional valves for smooth operation, reduced maintenance and improved cycle times.









Post Cure Inflator

The patented Stack PCI design provides a simple and compact solution for post curing your tires.

This solution eliminates any movement or rotations of the PCI body itself and greatly reduces the amount of moving mechanical components and maintenance. All HF presses are designed to incorporate the PCI. The compact design allows the PCI to be integrated into even the tightest footprints. Post curing tires ensure the highest quality and concentricity for your tires!

Standalone Stack PCI for Existing Presses

The HF Standalone Stack PCI is designed to fit behind most existing curing presses.

HF has vast experience in evaluating and providing a ultimate solution to customers around the world. We will replace the existing unloading unit together with the PCI, including independent hydraulic manifolds and electrical controls, along with a conveyor to transport the tires to your take-away conveyor.

Heating Systems

HF can implement your heating system design into our curing press layout or can customize a system to meet your requirements.

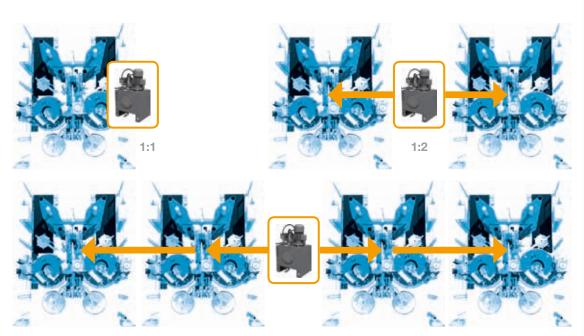
We have extensive experience with designing systems for pit or pitless trenches, one to three heating circuits, and various media (steam/N2, steam/steam, hot water, etc.). We work together with your team to define and select the various components of the system, including steam manifold designs (as shown above).



Hydraulic Solutions

HF is fully prepared to discuss hydraulic power unit concepts with you. We understand that your space requirements can vary from trench to trench.

We realize the importance of making sure that the curing presses are available for full operation at all times. We deliver from 1:1 to 1:6 or more. We always make sure that the units are sized properly to meet your production expectations.





HF Curemaster Is the New Benchmark in Truck Tire Manufacturing.

The new truck tire curing press "HF Curemaster TBR" offers a flexible and compact footprint, enabling it to replace older smaller presses and ultimately saves space or allows for the possibility to fit more presses per existing trench. Therefore, customers are able to increase the production without expanding their footprint.

The HF Curemaster TBR accommodates molds from 62"-67" – this modular design concept responds to the latest market requirements while allowing for customization to individual customer specifications. In terms of quality & maintainability, the HF Curemaster TBR ensures an optimum

tire uniformity and longest mold life due to an even distribution of the squeeze force. Moreover, the machine is designed to provide the lowest energy consumption and meets the highest requirements for availability, performance, and quality.



Space

- Flexible and compact footprint
- Possibility to replace older, smaller presses
 Potential for more presses per existing trench

Quality & Maintainability

- Even distribution of squeeze force ensures optimum tire uniformity and longest mold life
- Longer life time of the hydraulic components due to maximum hydraulic pressure of only 100 bar
- Easy access to main hydraulic, pneumatic and heating components

Modularity

- Press accommodates molds from 62"-67"
- Modular design to meet the latest market requirements
- Customized modules offer adjustment to customers specifications and individual needs
- Built according to the latest safety, environmental, and manufacturing requirements

Total Cost of Ownership

- Designed to provide the lowest energy consumption
- Durable construction for longer press life
- Meets the highest requirements for availability, performance, and quality

curing press manufacturing center.

Complete coordination of the manufacturing, assembly, check-out, and delivery of our presses takes place at our factory in Belišće, Croatia. The city of Belišće has a long industrial tradition, and our factory (owned by HF since 1998) has been in operation since 1953. There, we have a highly skilled labor force that works 24/7 and a modern facility, including the latest precision machine tools to ensure top quality components.

Manufacturing Process

The manufacturing process begins with proper tracking of all parts required for the respective order. Whether it is an electrical component, hydraulic part, or steel, all parts are logged through and into our logistics center. This ensures that all parts reguired for the order are ready when needed and are checked through our quality processes.

HF-specific parts run through our state-of-the-art welding and machine shop. All welded parts are stressrelieved to ensure top and long term quality. All parts are finalized by our skilled personnel on any of our large number of modern machine tools.

The assembly process begins in our pre-assembly department where all our main assembly groups are individually built by dedicated teams for the respective components, ensuring top quality and repeatability. From there, the assembly groups flow to our main assembly floor, where the press is assembled as it will stand in your plant.

Testing

After complete assembly of each press, we run each press in dry cycle to check all mechanical, electrical, and hydraulic functions of the press. We invite our customers to visit our factory for a "pre-inspection" of their presses at any time. This ensures the most effective possible start-up of the presses at your site.



customer service.

Satisfied customers in over 40 countries. Local support at 11 locations worldwide including 3 production sites. 1,000 employees of the HF TireTech Group from 15 nations.

Supplier Integrity

Our customers depend on our machines 24 hours a day, seven days a week. Our systems are extremely reliable and very low in maintenance in every respect, provided that all wear and tear parts are inspected regularly and exchanged when necessary. We are constantly working on improvements for our machines so that your factory will remain technically state-of-the art.

Site Installation Services

We are available to support you with the installation & commissioning of your new or relocated curing presses to ensure the most efficient start-up of your equipment. We work closely together with your key users to enable you to install presses on your own, if preferred. Of course, we offer turnkey installation service as well.

Spare Parts

We will always have parts available for your system. Essential wear parts are mainly manufactured in our factory in Belišće. These quality parts are designed to be long lasting, so that the functionality of your system is guaranteed over the entire life cycle of the press.

Maintenance/Optimizations

We provide more than just support in system design, assembly, and commissioning. We offer a wide range of maintenance and optimization services, particularly during running operations. Our team of experts can provide analysis of your systems, identifying any areas with improvement opportunities, and can propose the necessary measures required to optimize your operation.







Harburg-Freudenberger Maschinenbau GmbH

Phone: +49 40 771 79-0 Fax: +49 40 771 79-325 E-mail: info@hf-group.com www.hf-tiretechgroup.com



YOUR LEADING SUPPLIER FOR THE TIRE INDUSTRY.

