

tire building machines
powered by
passion.



TireTech Group



your reliable partner for your tire manufacturing process.

For more than 160 years, HF, located in Hamburg, Germany, has 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, or 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.

you know your requirements. *we have the solutions.*

Are you looking for high performance from a proven supplier for your tire building needs? The HF TireTech Group is one of the world's leading and most innovative tire building machine manufacturers and is the right partner for you!

From the initial clarification regarding your specific needs, throughout the order process and during the manufacturing, installation, and commissioning of your tire building machine, our team of sales representatives, engineers, project managers, and service people are always there for you. Our expertise is based upon more than 500 tire building machines delivered around the world.

Our sales team will review your requirements and find the right fit for your application from our machine portfolio, as well as other potential improvements for your tire assembly. We base our designs on a combination of modular and customized approaches 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 tire building machines, together with the latest German engineering, provides your tire operation with many benefits. Here are just a few of those benefits:

Made in Germany

- Reliability: Our machines have been running for more than 30 years in tire factories and are still a dependable part of the production process.
- Robust design of our servers compensates for any deflection and vibration during operation.
- Mechanical spare parts are available throughout the complete lifetime of our machines.

OE quality standard

- All materials are centered during application, which guarantees accuracy in positioning in the green tire.
- Measurement and re-measurement of the cut lengths result in an excellent splice quality.
- Precise bead clamping and fixing during turn-up ensures constant ply length between cords.

Modularity

- HF machine concept enables the customer to add components/servers during the lifetime.
- Spare space in switch cabinets and cable trays is provided for.

Operator-friendly design

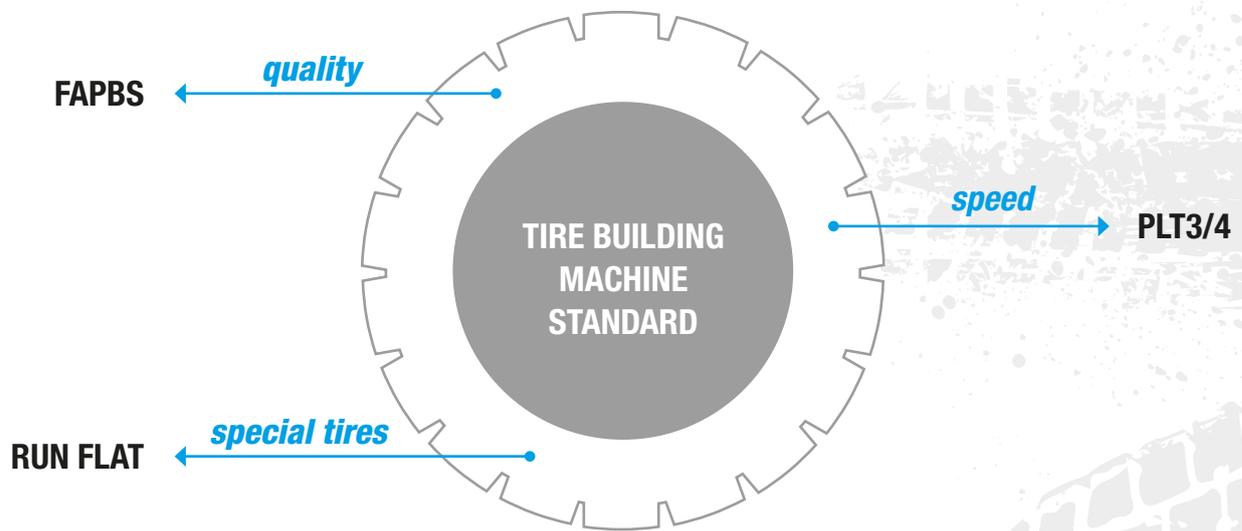
- Easy access and clear instructions for maintenance at the machine.
- Early detection of possible failures.

Optimized availability for production

- Let-offs designed for cartridges to enable quick material change (stock level displayed on operator panel).
- Quick dimension change time thanks to PLC-controlled server adjustment.
- Tooling partly designed to cover 2 tire inch sizes means time savings.
- Advanced failure diagnostic system shows the operator the root cause of the failure, e.g. missing sensor input.

Excellent productivity

- Use of HF's patented SmartMotion software technology reduces the cycle time of a standard TBM by up to 10%.
- High level of automation (up to fully-automated) eliminates operator influence.



common *design approach.*

The fundamental basis for our TBM design, no matter which type you are looking for, is the same. All tire building machines consist of our long proven modular components and are sized to your specifications.

Depending on your requirements, we offer two, three, or four drum systems. All TBMs can be built up modularly to include, e.g. a speed kit with two carcass drums or a quality kit with our patented FAPBS drum. You can also upgrade the machine for the Run Flat option. We also work with you to customize green tire handling, including automatic green tire unloading systems.

profiles are unique. ***we design to meet your needs.***

We are able to offer our customers either a standard TBM, which can be enhanced by modular building blocks (e.g. unloading and labeling systems) or our “open system” for individual demands regarding your individual tire design.

Our machines are also well-equipped to meet any high demands that may be placed upon them in the future through regular updates and optional functional modules.



our modular machine concept *meets your requirements.*

HF's ONE Tire Building Machine is the answer to new challenges in tire manufacturing and market demands.

High flexibility

- ONE machine, three possible carcass drums
- Quick change-over of different carcass drums without changing the shaft <20 min.
- High force, long stroke, servo-driven for symmetrical turn-up movements
- Low final shaping distance => 180 mm bead to bead
- Automation of two-stage process with permanent bead control and unistage process with SOT/TOS capability

Tire quality

- Less stress on ply due to flat turn-up
- Separate IL and SW application
- No ply ending in SW area due to C turn-up or ply up/down construction
- Constant cord length bead to bead
- Very accurate SW inboard edge application

Tire cost

- High BP turn-up => Reduces material and tire weight
- High efficiency, low cost per tire

Modular Components

Examples

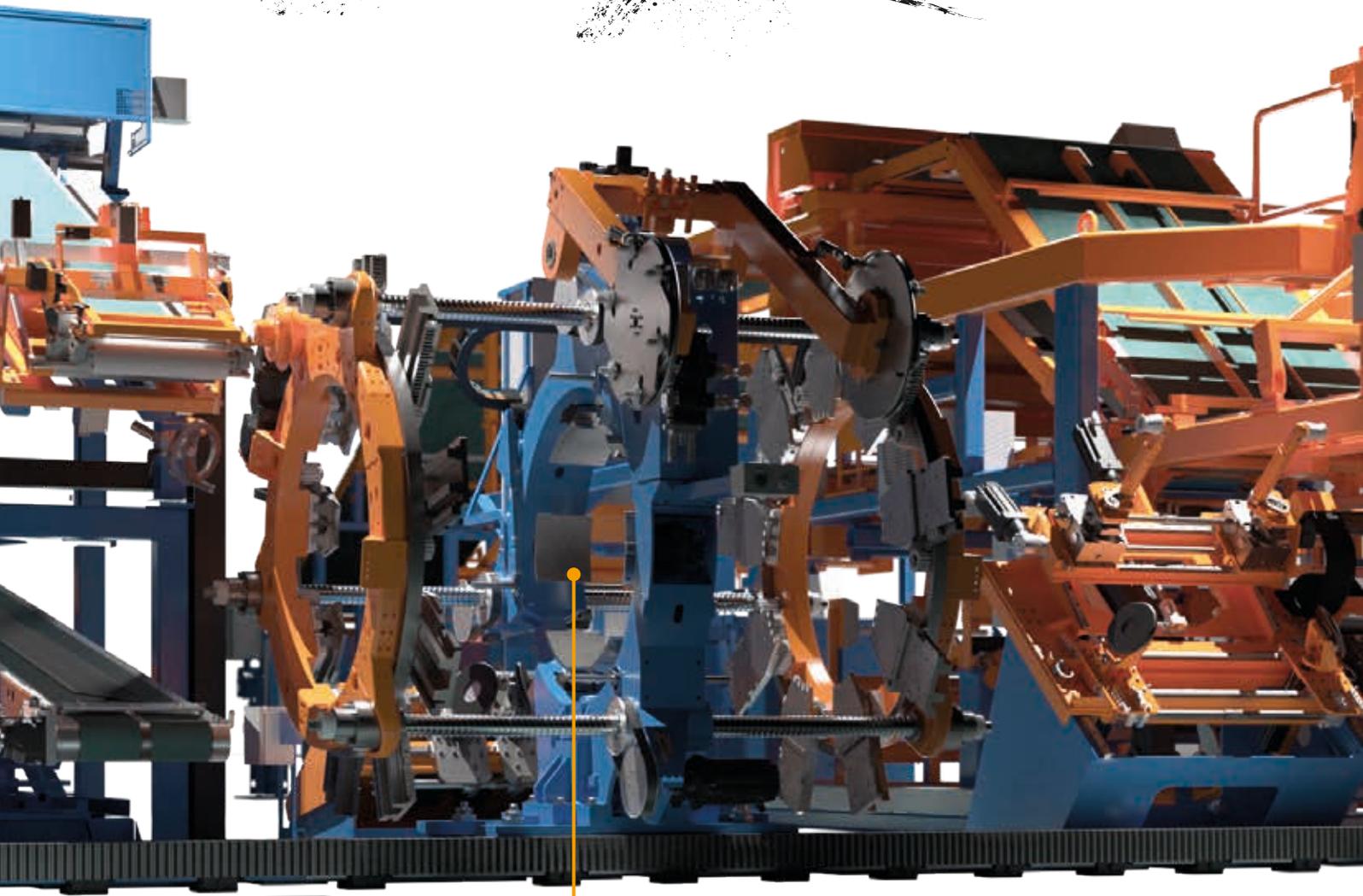
- Ply server: separate SW/IL
- Let-offs: Shuttle
- Chafer
- Reel tread from the front
- Reel tread from the back
- FAPBS
- Multi-disc roll
- RUN FLAT
- Barcode labeller
- Green tire unloading systems



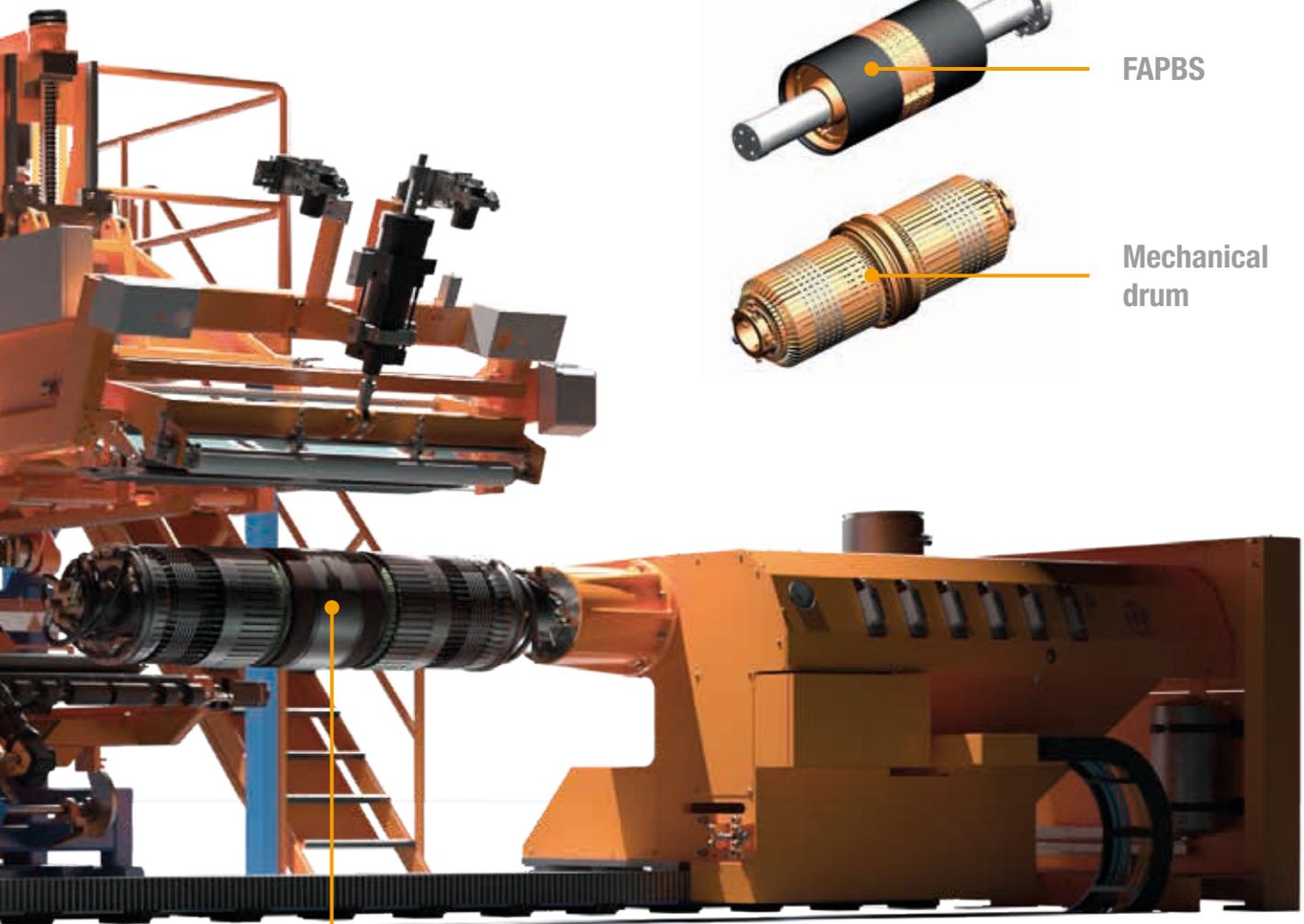
Excellent quality and state
of the art material handling

- length measurement
- cutting
- tension free transportation
- centering

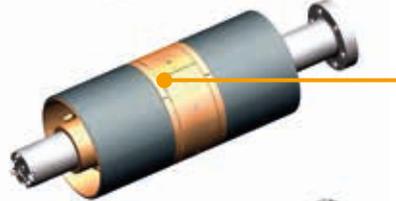
ONE



- Symmetrical drive turn-up
- SOT/TOS process
- Flat/Inflated turn-up



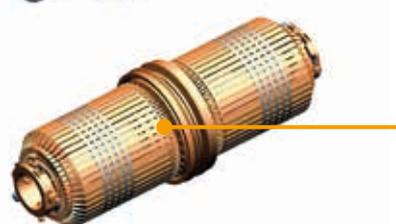
Belt drum



KS2S



FAPBS



Mechanical drum

- Drum change 20 min
- Flexibility in tire building process
 - > SMT drum
 - > FAPBS drum
 - > KS2S drum

tire building machine *manufacturing center.*

Complete coordination of the manufacturing, assembly, check-out, and delivery of our tire building machines 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 working 24/7 in a modern facility, using the latest precision machine tools for ensuring top quality components.

Manufacturing Process

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

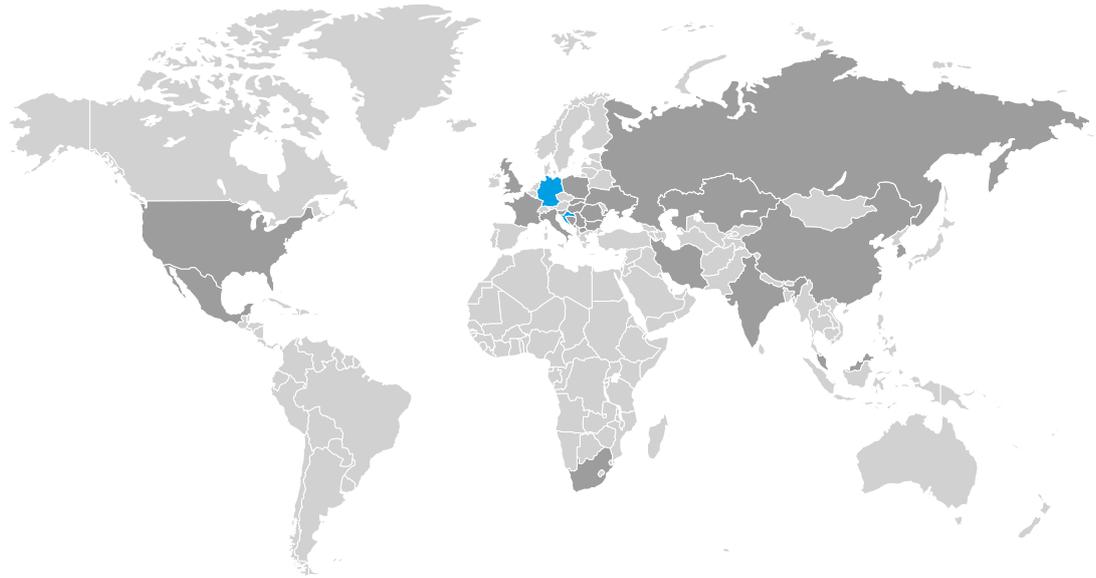
HF-specific parts run through our state-of-the-art welding and machine shop. All welded parts are annealed (stress-relieved) to ensure top and long term quality. All parts are completed by our skilled personnel on our large number of modern machine tools.

Assembly

All our main assembly groups are individually built in our pre-assembly department. Every team is dedicated to ensure top quality and repeatability for the respective components. From here the assembly groups flow to our main assembly floor, where machine components are assembled as they will later stand in your plant.

Testing

After assembling each component, we run each TBM through a software test dry cycle to check all mechanical, electrical and pneumatic functions. We invite our customers to visit our factory for a “pre-inspection” of their TBM at any time. This ensures the best possible start-up of the TBM 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-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 of your new or relocated TBM to ensure the most efficient start-up of your equipment. Of course, we also offer turnkey installations.

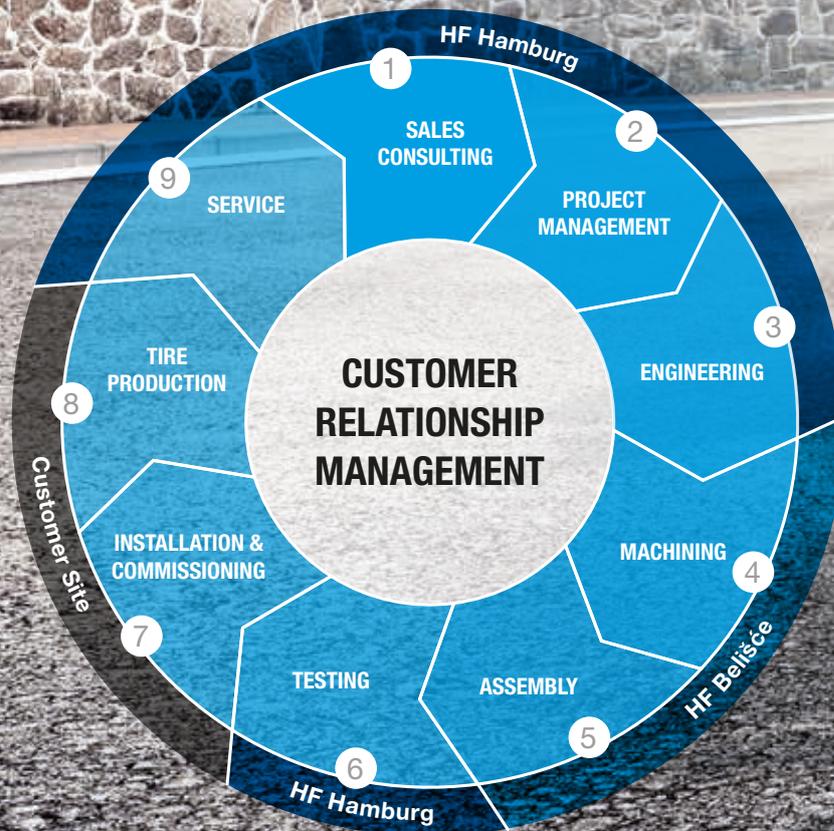
Spare Parts

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.

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, identify any areas with improvement opportunities, and propose measures necessary to optimize your operations.

the HF team *is always focused on your needs!*







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