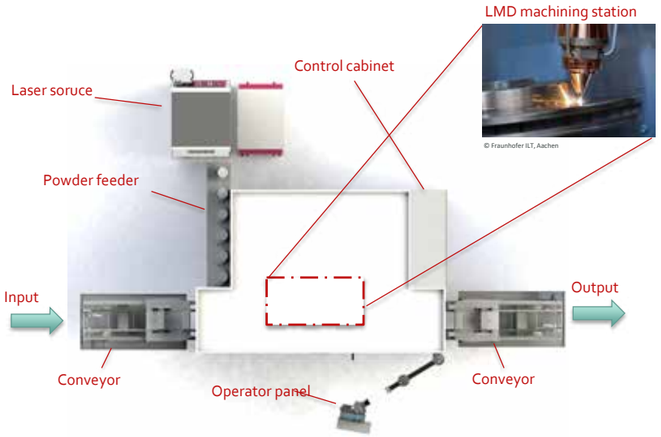
Brake disc production of the latest generation

WEISSER
A HARDINGE COMPANY

The challenge

The upcoming Euro-7 standard poses new challenges for the automobile industry.
Contrary to the previous Euro standards, which focused mainly on CO2 emissions, the Euro-7 standard also regulates brakes and tires, whose particulate emissions are currently higher than those of the internal combustion engine itself.
Conventional brake discs can be changed into wear-reduced and corrision-resistant „low-emission break discs“ by new innovative technologies.



The benefits:

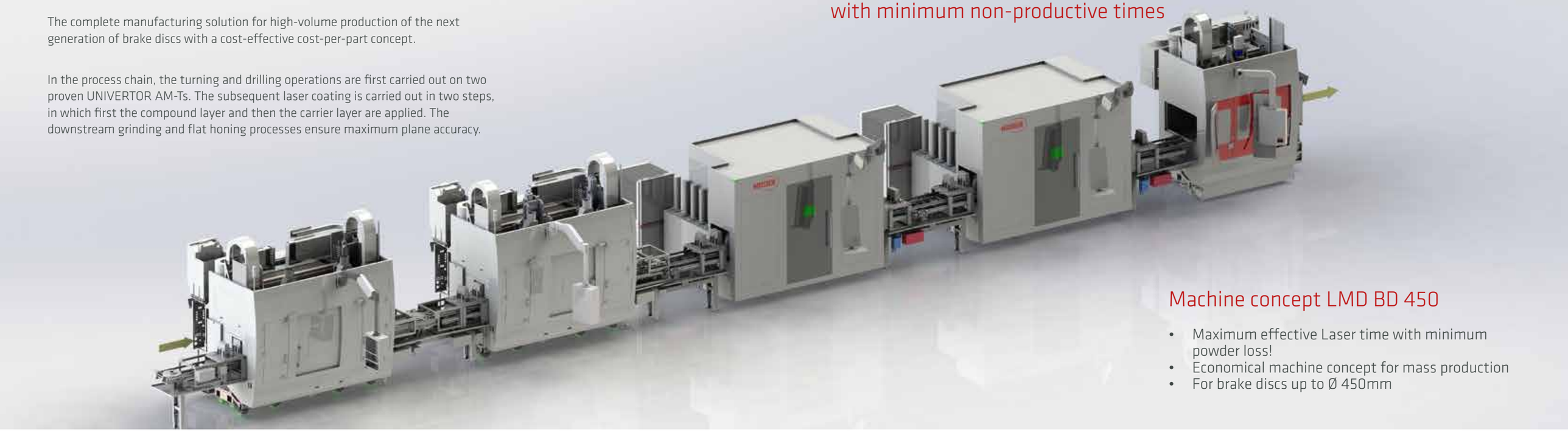
- Extremely low idle times of < 1 second
- High application rate of up to 1.250 cm^2 / min (per 100 µm) guarantees low cycle times
- Clever machining strategy reduces part delay
- Maximum powder efficiency without powder steeping

Everything from one source

The complete manufacturing solution for high-volume production of the next generation of brake discs with a cost-effective cost-per-part concept.

In the process chain, the turning and drilling operations are first carried out on two proven UNIVERTOR AM-Ts. The subsequent laser coating is carried out in two steps, in which first the compound layer and then the carrier layer are applied. The downstream grinding and flat honing processes ensure maximum plane accuracy.

Innovative machine concept ensures maximum powder efficiency with minimum non-productive times



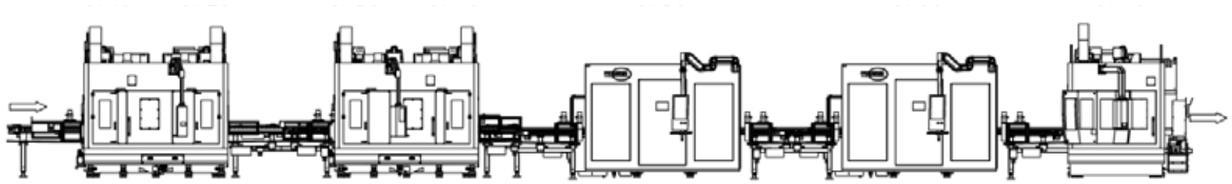
Machine concept LMD BD 450

- Maximum effective Laser time with minimum powder loss!
- Economical machine concept for mass production
- For brake discs up to Ø 450mm

Our technological solution

WEISSER relies on the so-called laser cladding, also known as laser buildup welding. In this additive manufacturing process, a material powder is blown through an inert gas into the focus of a laser beam. The powder melts in the inert gas even before it reaches the workpiece, in this case the brake disc, and bonds with the surface, which is also molten. The result is a metallurgically bonded hard coating on the brake disc that complies with the latest emission standards.

WEISSER, as a supplier of machines for the machining of brake discs, develops these additional process steps and integrates them into a well thought-out machine concept WEISSER LMD-BD-450 designed for mass production.
With this machine concept, the effective laser time is minimized. At the same time, the concept ensures optimal powder utilization and minimizes almost any loss!



UNIVERTOR AM-T | UNIVERTOR AM-T | LMD BD 450 | LMD BD 450 | DiscPro 450 Turn/Grind

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JGWS • 06/23 • EN • V1 • WEH • Technische Änderungen vorbehalten / Subject to technical changes