BURKHARDT + WEBER

INTERESTING FACTS ABOUT POWER SKIVING

Workpiece before gear machining – on a round pallet with T-slots.

Your optimum equipment for complete gear machining.

WHAT IS POWER SKIVING?

Power Skiving is a gear-cutting process. In German linguistic usage the term is also used for gear skiving. This process is not new but already developed and patented in 1910. However, this process was only able to be transferred into practice after maturing of the electronic drive control system (control technology) and after achieving an absolutely tolerance-free drive power.

WHICH KIND OF WORKPIECES CAN BE MACHINED WITH POWER SKIVING?

In simple terms: toothed workpieces. This includes gear rims for planetary gears in the field of drive technology, parts for gearboxes in commercial vehicles like mining trucks as well as special toothings in turbine engineering. A particularly interesting task is when it comes to internal gearing. The solid design of BW machining centres guarantees high gear quality up to module 8.

Machined component, internal and external ring gears, up to a diameter of 2,800 mm / module 8 (depending on tool).

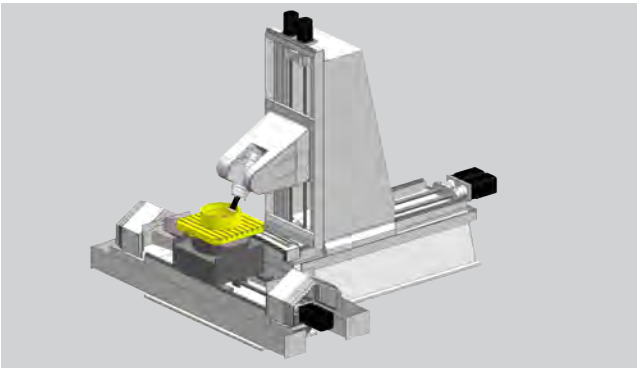
WHICH ADVANTAGES DOES POWER SKIVING OFFER?

With an ultra-flexible machining centre of the MCT series you have the possibility to perform a complete machining with milling – turning – gear cutting on one machine. This allows you to machine cubic as well as cylindrical workpieces with specific toothings.

Thanks to its torque table, the MCT can not only carry out typical machining operations such as milling and drilling, but also turning operations, thus ensuring maximum flexibility on one machine.

HOW DOES POWER SKIVING WORK?

The synchronized rotary movement of spindle and table is a key feature. This is achieved by using a generic coupling between main spindle (motor spindle) and B-axis (torque drive). In combination with special tools the desired surface quality and required tolerance can be produced.



BENEFITS:

+ Internal and external gear machining on the BW-MCT series. This eliminates the need for expensive single-purpose machines (special machines).
+ Compared to gear hubbing the power skiving normally requires shorter overrun and overflow travels.
+ Considerably shorter cycle times compared to gear hubbing.
+ Reduction of clamping, thus increasing the overall accuracy of the components.
+ High productivity, as a large number of cuts per cycle is possible.
+ Reduced logistics effort in terms of transport and layover times.

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