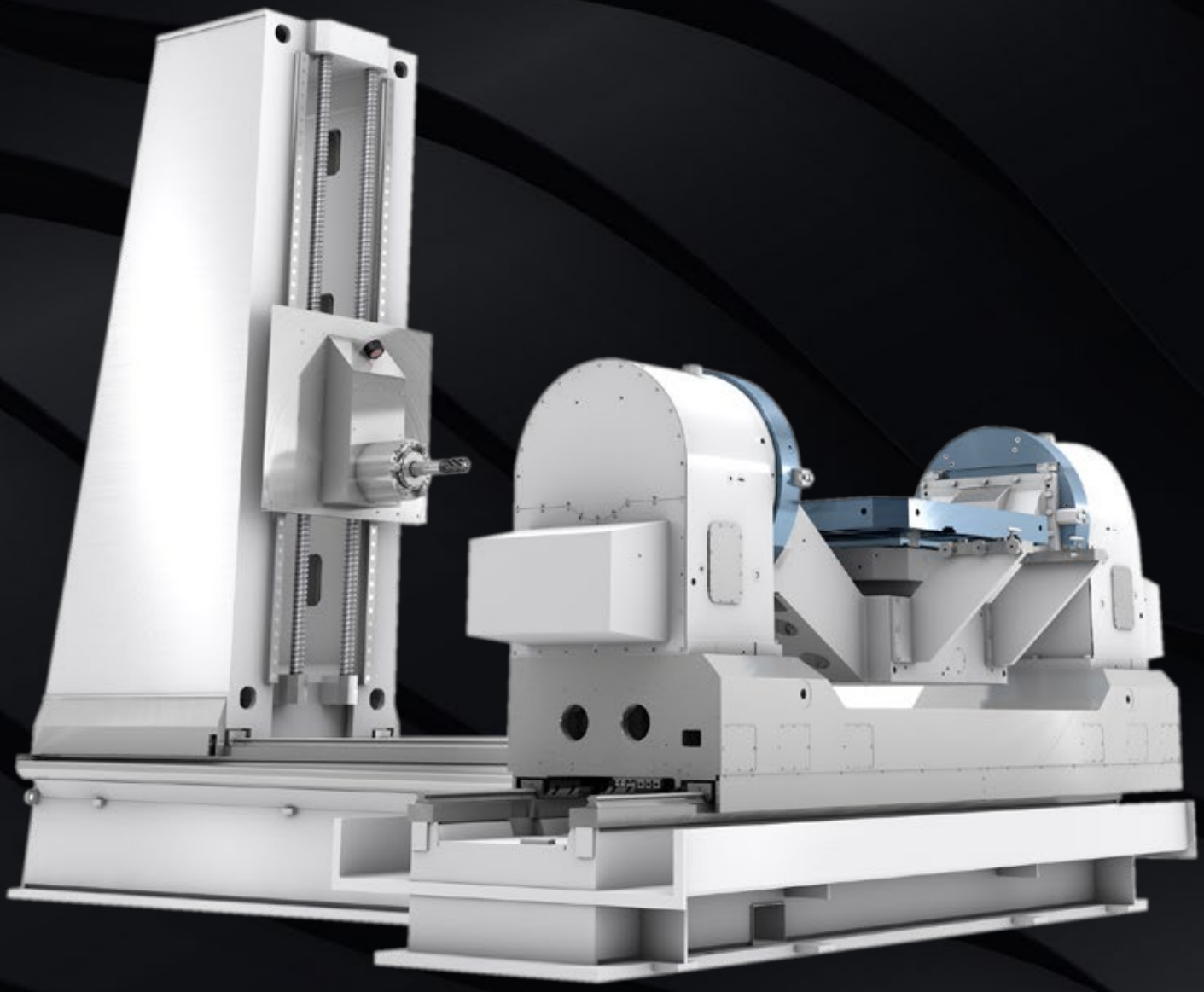
COMPETENCE

BURKHARDT + WEBER

2024

SIMULTANEOUS 5-AXIS MACHINING

PROVIDING FLEXIBILITY IN ALL DIMENSIONS



strong. precise. customized.

CENTERPIECE TILTING TABLE

Ranging from L to XXL, BURKHARDT+WEBER offers large machining centers for 5-axis simultaneous machining with a tilting machine table.

The machine series of BURKHARDT+WEBER are available in various designs either as 5-axis version including a HV-head, an A-axis (fork head) or a rotary/tilting table.

The centerpiece of every TT-machine is a rotary/tilting table positioned on the X-axis, enabling simultaneous 5-axis machining in almost any spatial position. That's why a rotary/tilting table made by BW comes into operation whenever the workpiece geometry requires it. It consists of a bridge clamped between two NC-reversable clamps and the inserted NC table unit. The company's references cover a wide range of industries, from the semiconductor industry to traditional diesel engine manufacturing.

Among other options for 5-axis simultaneous machining, e.g. with a fork head, there are applications that particularly benefit from combining the horizontal spindle with a tilting table, and this is where the TT-version makes its mark.

One of the main areas of application is prototype design, which requires flexibility and not exclusively speed or when particularly powerful spindles requiring large space volumes are involved.

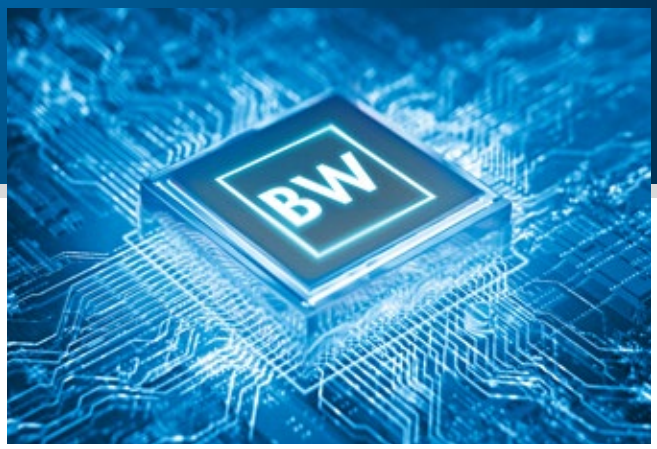
"Each solution offers a number of factors that favor one option or the other. As BURKHARDT+WEBER is known for its customized solutions, a suitable machine configuration can be developed in close cooperation with the customer in a short time. The use of a rotary/tilting table is a proven solution when high spindle performance is required. The tilting bridge provides space for all horizontal spindle configurations," says Marcos Ahorn, International Sales Support. "Despite the fact that a rotary/tilting table requires more mass to be moved, advantages such as improved chip fall point favor this machine version. Its limitations only become relevant if the workpiece is too large, since the workpiece interference circle is smaller than on a machine with the same table size," explains the longtime BURKHARDT+WEBER expert, who completed several TT-table projects.

PROJECT EXAMPLE Slewing bearings

Slewing bearings, as used in excavators, wind turbines or propellers, undergo enormous loads in their daily use. These key components must perform their duties with precision. The world market leader in slewing bearings selected their project solution from BURKHARDT+WEBER. This gives them maximum flexibility in terms of their entire range of parts, the axial space position as well as the use of short and rigid tools.

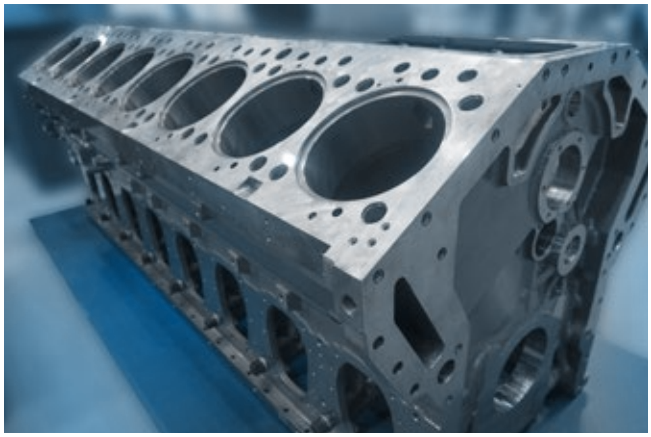
PROJECT EXAMPLE Drive components

The combination of a rotary/tilting table offering dual turning options is a perfect multitasking machining alternative. Operations such as power skiving for machining of gears can be performed for easier processing. BW offers power skiving of gears up to module 11.



PROJECT EXAMPLE Vacuum chamber housings

A rotary/tilting table is used where high precision or exceptional surface finish is required, for instance in the semiconductor industry.



PROJECT EXAMPLE Prototype diesel engines

Slow and steady wins the race – the rotary/tilting table is the perfect choice for prototype design, where speed is not the primary concern. The rotary/tilting table provides finishing of all functional surfaces in a single clamping operation. One of our core customers has set new standards in diesel engine design and achieved a new world record for overall thermal efficiency in 2024. This higher efficiency saves millions of tons of fuel and reduces CO^2 emissions. Such projects are always approached by BURKHARDT+WEBER experts with dedication and passion.

OUR MACHINES ARE GEARED TO YOUR TASK.
NOT THE OTHER WAY AROUND.

strong.
precise.
customized.

Publisher
BURKHARDT+WEBER
Fertigungssysteme GmbH
Burkhardt+Weber-Straße 57
72760 Reutlingen | Germany

Tel +49 7121 315-0
info@burkhardt-weber.de
www.burkhardt-weber.com

Responsible for the content:
BURKHARDT+WEBER
Images: BURKHARDT+WEBER

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