



DIGITAL.

LARGE-SCALE BACKGROUND MAGAZINE FOR A MAXIMUM IN FLEXIBILITY.

A central tool magazine with up to 3,000 tools is connecting two machining centres type MCX 1000, each equipped with an integrated variable matrix tool magazine with up to 608 tool positions – this is not a typical application requirement.

The machining of highly complex automatic gear trains and special gear boxes for large scale industrial installations or ships requires a large number of special tools, angular heads, CNC-controlled facing heads, dampened boring tools and more.

The overall machining system is controlled by a master control system software and the ease of operation is delivered by visualizing the actual operating

status. The large-scale background magazine is designed from standard BW-rack type components. The project convinced by the high manufacturing depth of BW.



YOU ARE BEST EQUIPPED FOR THE NEW GENERATION OF IIOT WITH MACHINING CENTRES FROM BW.

Smart maintenance is the BW-approach for the mission to deliver a more effective after sales support for you, no matter where you are around the globe. For this BW is also implementing mixed reality – a technology where the physical world is expanded by virtual objects. You share what you see and we solve problems together.



SINCE 1888
130 YEARS

COMPETENCE

BW BURKHARDT
+
WEBER



SINCE 1888
A BRAND PROMISE
130 YEARS

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

Tel +49 7121 315-0
Fax +49 7121 315-104
info@burkhardt-weber.de
www.burkhardt-weber.de

Responsible for the content:
BURKHARDT+WEBER



strong. precise. customized. digital.

BW – YOUR END TO END PARTNER IN MACHINES AND METHODS.



STRONG.

MCR 8000.

Although known for large machining centres, BW could set a new standard with the MCR 8000. Featuring 18 m (59 ft) X-travel it weighs 182 tons and is certainly not a light weight champion.

The combination of a MCR-box way machining centre with an integrated gear gashing unit working on the same X-axis with hydrostatic CNC rotary table axis results in a completely new gear generating concept for gears and especially large segmented gears. The gear gashing cutters with up to 500 mm (20 in) diameter offer a capacity up to Module 50 are automatically exchanged, like the work pallets. The overall concept guarantees the machining in one opera-

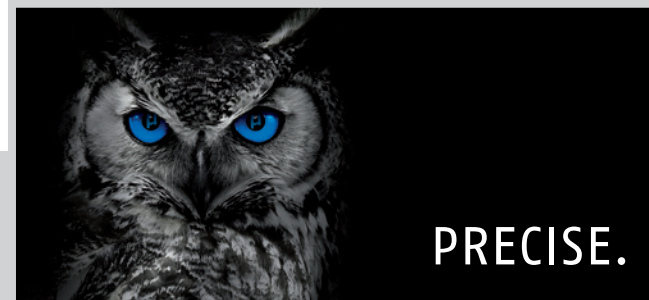
tion and produces the closest tolerances with ultra-precision. Furthermore, the vibration dampening machine concept delivers gear qualities into the grinding range.

The benefits are quickly discovered: Great cost savings by reduced overall cycle time form high automation and minimised part handling.



CRAFTSMAN PERFECTION.

Ultra-precision machining centres, machining within the micron range. This is no automatic process, as highest flatness and unmatched linearity for the guides can only be achieved by hand-scraping. At BW these precision details are created by experienced craftsmen like Bernd Schuler. This results in the best fit of selected components, an optimum lube film and prevents thermal distortion.



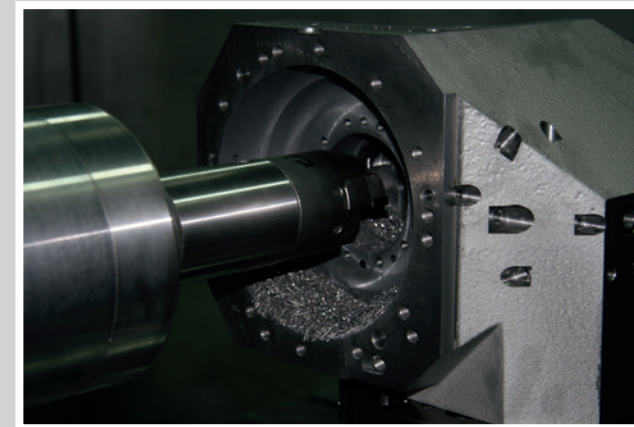
PRECISE.

MCμ 900.

2012 – The Challenge was ultra-precision machining of large spherical parts up to 4 meter (13 feet) in length within less than 10 microns (0.0004 inches). “Machining Centres with Jig-Mill precision” or making “the limit of perfection” could have been the motto! Driven by the high demands of a long-standing customer, BW developed a complete series of machining centres with Jig mill precision.

Here the focus is axis linearity, parallelism, angularity and positioning accuracy of the main axes. The precision machining spindle delivers optimum roundness. And the complete machine provides absolute thermal stability. With high precision pallet exchange

and ultra-precision CNC table rotation the integration into manufacturing cells and systems is guaranteed, thus supporting machining parallel part handling on load station. The total time for hand-scraping was 250 to 350 hours, because true precision is only crafted mechanically at BW.



BW-PHILOSOPHY.

Jens Vohrer, quality expert at BW is committed to quality control and accuracy, and his credo is: “Mechanical geometric precision instead of electronic compensation”.



CUSTOMIZED.

MCX – ROTARY CNC TILT TABLE.

The MCX-Series with the TT signature is equipped with a rotary CNC tilt table, available in the sizes 800, 900, 1000 and 1200.

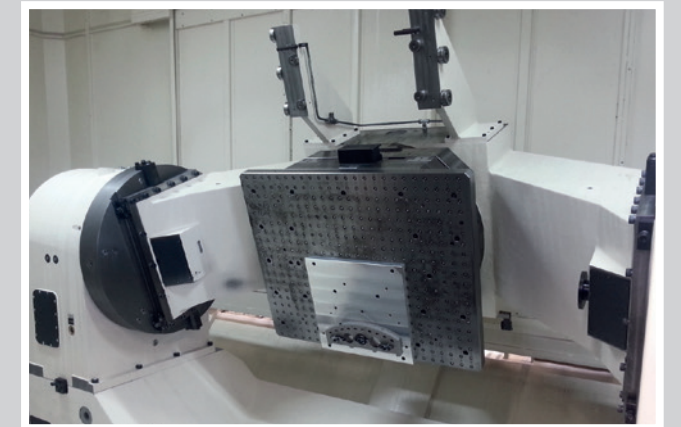
This provides for simultaneous 5-axis machining and positioning over a wide A-Axis swivel range of 165 degrees and an endless B-Axis rotation and contouring, offered also with optional CNC turning. Thus, all necessary 3-D positions can be accessed.

A horizontal BW-spindle unit with a full range of options or a horizontal/vertical spindle unit is available.

The rotary CNC tilt table is extremely rigid – as typical for a BW design – and fits the particular machine size

perfectly for highest precision and highly dynamic in the axis motions.

The horizontal spindle arrangement features an optional chip disposal and easy access to the machine's work area for inspection of the part or the tools.



THE RESULT OF EXCEPTIONAL TEAM WORK.

From the concept to the final realisation, is your benefit. Tailored machine solutions and fitting machining applications including work holding and fixturing, automation and integration into a computer-controlled system, paired with decades of experiences building special machines – based on a close-knit team work philosophy at BW. A tradition which is maintained with special attention at BW: BW-Machines are designed for the application task, not the other way around.

1888

Founded by Louis Burkhardt and Johannes Weber as a textile and machine tool factory.

1908

New building in the Northwest of the city on today's location.

1923

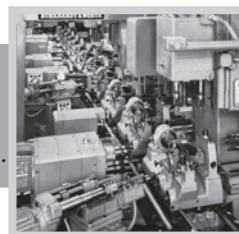
Production of gang drills, column drilling machines and joint-shaft drilling machines.

1947

First major order from the Manufacture d'Armes, Paris.

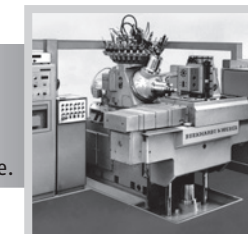
1951

Delivery of the first serial production transfer system.



1959

Presentation of the world's first numerically controlled machining centre.



1984

Market introduction of the MC series machining centres with variable matrix, rack type tool magazines.

2012

Acquisition by Indústrias Romi S.A. Brazil, on February 1, 2012.

2018

130 YEARS
BURKHARDT+WEBER