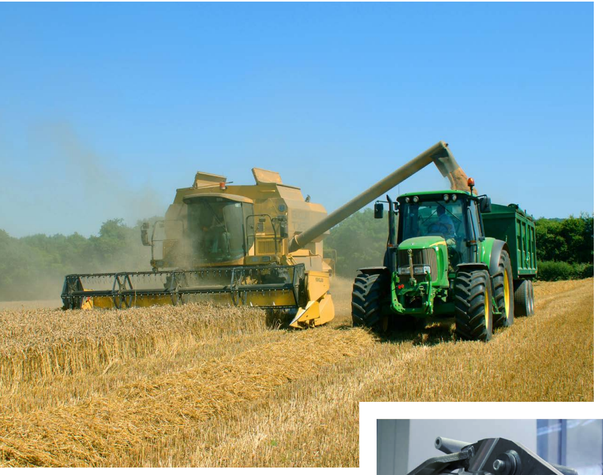
EMCO

AGRICULTURAL TECHNOLOGY

SMART FARMING & HIGH-TECH



BAUER IN VOITSBERG PRODUCES EQUIPMENT FOR IRRIGATION, SEPARATION AND SLURRY TECHNOLOGY. POPULATION GROWTH AND CLIMATE CHANGE POSE CHALLENGES TO WHICH ONE MUST REACT FLEXIBLY AND BE IN THE MARKET WITH THE RIGHT SOLUTIONS.

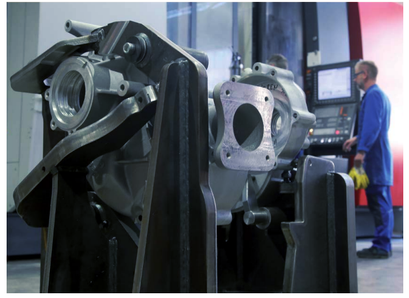
Innovative agricultural machinery technology for even greater efficiency

Whereas 20 years ago an average combine harvester had around 200 hp, today the level is 400 hp with considerably larger cutting widths and grain tank volumes – larger and more expensive machines need a high intensity of use, short downtimes and a longer service life in order to pay for themselves. Requirements that are imposed on the suppliers and manufacturers in the development and quality of the components used. The prerequisite is the use in production of appropriate machines and technologies. For the company Bauer in Voitsberg, the courageous step towards a new solution has paid off – 30% time savings per component, with increased quality are convincing results.



„In total, we were able to save up to 30% time per component. And that with significantly higher accuracy and surface quality."

/ Daniel Stangl
Head of Mechanical Manufacturing BAUER GmbH



Courage for innovative solutions

Really good solutions go beyond the standard. So successfully implemented in an intensive cooperation with Bauer, Voitsberg. The result speaks for itself: the two MMV moving column machining centers for large and heavy workpieces work in a clamping from five sides. Two separable working areas make the planning and processes easier. Thanks to the clever use of space and installation, the efficient multi-machine operation is possible by only one person. The identical design and identical spindle capacities also allow components to be exchanged quickly and flexibly between the machines. The MMVs are used to manufacture housing parts, shafts and various other components. Due to the identical design of the two milling machines, a large number of the parts can be machined flexibly on both models.

MULTIFUNCTIONAL & NETWORKED

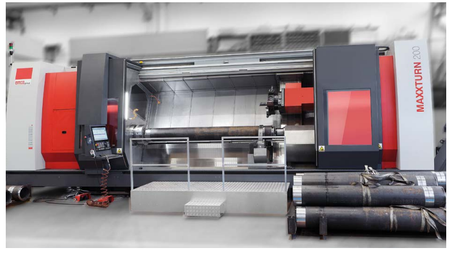


Focus on process and logistics management

In addition to traditional characteristics such as performance and reliability, topics such as the autonomous use of machines, digitalisation and alternative drives are gaining in importance in order to ensure the required sustainability, efficiency and safety in construction. The foundations for this are laid in research, development and in the production of the machines – EMCO machines are also required here – for example at the hydraulics manufacturer ICOP Hydraulics, who uses a Maxxturn 200 with a drilling distance of 4 metres, a maximum turning diameter of 1000 mm and a workpiece weight of up to 6000 kg to produce hydraulic cylinders on this EMCO machine.

Machine with vision

In the production of hydraulic cylinders, production times at ICOP Hydraulics in Piacenza have been shortened and production performance increased, even with challenging materials like Ergal. Thanks to its high stability, the Maxxturn 200 enables high precision finishing. The networking of the system contributes to an optimal process flow. Downtimes can thus be reduced. The Maxxturn 200 features an 84 kW spindle with a maximum torque of 6400 Nm, a steady rest that carries the slim and long components typical for ICOP Hydraulics production, a tool turret with 12 positions (all available as driven tools) and a maximum of 1800 rpm. Another important aspect when machining raw components is the handling of vibrations: Structural stability, the machine base and the machine frame have a positive effect on the quality of the machined surface and the service life of the tools. Cycle times also benefit from this, as the working parameters do not have to be limited. This flexibility makes it possible to vary the type of components to be produced, which is advantageous when working with small quantities. This is another reason why the Maxxturn 200 is ideally suited to the requirements of ICOP Hydraulics, as it mainly produces single pieces as well as orders with small batch sizes for customers.



Giovanni Leccacorvi is convinced of the potential of the Maxxturn 200.



/ Giovanni Leccacorvi
Founder and owner of ICOP Hydraulics

„In addition to the appropriate dimensions, the lathe also provides the required performance and flexibility."

AGRICULTURAL TECHNOLOGY



1 Chopper drum: HYPERTURN 100 POWERMILL

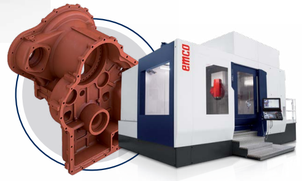


4 Drive shaft: HYPERTURN 50





3 Turbine housing: MMV 3200



2 Gearbox: UMILL 1500

CONSTRUCTION MACHINE TECHNOLOGY



4 Boom: ECOMILL

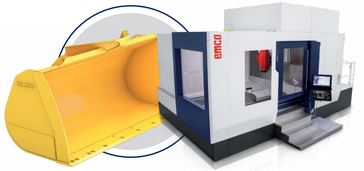


1 Hydraulic cylinder: HYPERTURN 200 POWERMILL





3 Pump screw: HYPERTURN 65 POWERMILL



2 Wheelloader bucket: UMILL 1800

AGRICULTURAL TECHNOLOGY SOLUTIONS



Chopper drum: HYPERTURN 100 POWERMILL

Complete machining in two clamps



Dimension	**ø 480 x 660 mm**
Material	**Steel 1.0976**
Cycle time	**45 min**

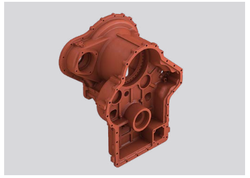


Turbine housing: MMV 3200

Manufacture of turbine housings in shuttle operation with two integrated rotary tables



Dimension	**600 x 400 x 180 mm**
Material	**Grey cast iron GG30**
Cycle time	**6 min 52 sec**



Gearbox housing: UMILL 1500

Machining in two setups



Dimension	**800 x 700 x 400 mm**
Material	**Grey cast iron GG30**
Cycle time	**335 min**

CONSTRUCTION MACHINE SOLUTIONS



Pump screw: HYPERTURN 65 POWERMILL

High-precision machining of pump screws on the main and counter spindle



Dimension	**ø 65 x 180 mm**
Material	**Stainless steel 1.4404**
Cycle time	**2 min 32 sec**



Wheelloader bucket: UMILL 1800

Machining of the bearings in one setup



Dimension	**1200 x 2300 x 1000 mm**
Material	**Unalloyed steel 1.0570**
Cycle time	**51 min**



Boom: ECOMILL

Multi-sided machining of all screw-on surfaces and bearings



Dimension	**1100 x 1200 x 3400 mm**
Material	**Unalloyed steel 1.0570**
Cycle time	**56 min**

EMCO



CONSTRUCTION MACHINERY

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