
TAURUS
WALDRICH COBURG

TAURUS

WALDRICH COBURG

The best price - performance ratio!

The only wear free machine in its class.

Highest precision in the category.

Aesthetic appeal that is unmatched.

Manufactured in Germany

TAURUS

Energy efficient design to minimize operating costs.
Productivity increased through reduced non-machining time and attention to ergonomics.
Strategic initial investment, low operating costs, and high productivity result in the best price - performance ratio.

Infinitely variable positioning of the C-axis [Deg]	+/- 200
Power max. [kW]	63
Torque [Nm]	1.500 - 2.500
RPM max. [min^{-1}]	6.000
Feed rate X / Y / Z [m/min]	30
Hydrostatic guideways in X / Y / Z / W *	
Number of tool storage pockets	100
Number of storage places for spindle units	4
Load, max. (table/pallet) [kg]	40.000 / 25.000

Industry 4.0 ready

Available controls: Heidenhain TNC 640, Siemens 840 Dsl

Options:

- Twin pallet changer
- Tool magazine extended to 200 tools
- Production packages
- In-process measurement
- High pressure coolant system

* 20 years warranty, available as part of a maintenance contract

TAURUS 25

Table size [mm]	2.000 x 4.000
Clearance between table/pallet and vertical spindle unit [mm]	2.000 / 1.700
Clearance between portal columns [mm]	2.500
X / Y / Z [mm]	5.000 / 3.500 / 1.500
Fixed crossrail	

TAURUS 30

Table size [mm]	2.500 x 5.000 / 2.800 x 5.000
Clearance between table/pallet and vertical spindle unit [mm]	3.000 / 2.700
Clearance between portal column covers [mm]	3.000
X / Y / Z / W [mm]	6.000 / 4.000 / 1.500 / 2.000
NC feeding crossrail [mm]	2.000


TAURUS
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Award winning design!
WINNER
BEST OF INDUSTRY AWARD
GERMAN DESIGN AWARD SPECIAL 2017
PLUS X AWARD
honoured as:
BEST PRODUCT 2016/2017

TAURUS
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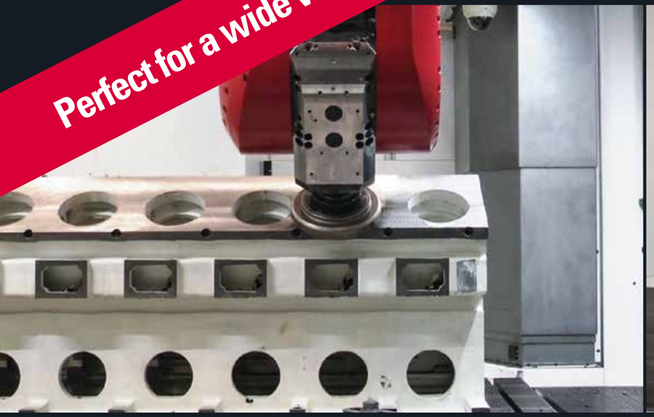
Perfect for a wide variety of workpieces!




Ideal machining center for the following applications:

- Steel Construction; frames, railway bogies, fixtures, housings
- Gearboxes, turbine housings, pump housings, printing machine parts
- Machine tool components; machine beds, saddles, spindle housings
- Engine blocks, base frames
- Tooling, aerospace & die components; fixtures, mandrels, form dies
- Ideally suited for machining: steel, aluminum, titanium, cast iron, composites, all types of exotic alloys

and for your application.

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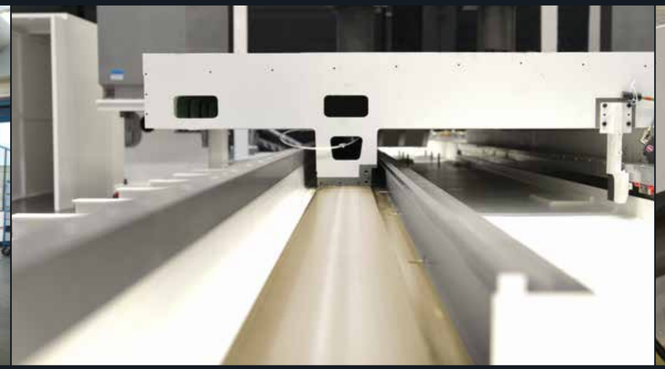
We build machines the right way!



Portal

Major machine components made from high quality cast iron provide superior damping characteristics. Castings are constructed with thick walls and strong ribbing to guarantee stability and rigidity. Stiffness and damping are the basic criteria for high productivity and precision.

All guideways are true hydrostatic pump-per-pocket-design with zero contact of sliding components. This results in no wear, high dynamic stiffness, and smooth motion for trouble free operation.

Absolute measuring scales, state of the art digital drives, and optimized mechanical drive components allow for precise motion control.

Milling Head

Sixteen hydrostatic pockets encapsulate the TAURUS-RAM creating tremendous stiffness and smooth precise linear motion.

The RAM has an integrated C-axis with infinitely variable positioning. During roughing operations the C-axis is clamped in position. The 5-axis machining package adds multi-axis contour milling capabilities.

Hydrostatic

The machining process is supported by the excellent damping properties of highly precise wear free hydrostatic guideways. The temperature of the hydrostatic oil is maintained based on the temperature of the surrounding environment, allowing the machine to maintain its accuracy even in changing ambient conditions. Additional power-hungry temperature control devices can be eliminated. The machine remains accurate even in an unfavorable environment.

Drives

The latest digital drive technology and absolute measuring systems enable energy-optimized operation with high precision and low maintenance.

Energy recovery has been in use on WALDRICH COBURG machines for decades. The space optimized X-axis transmission is designed and built by WALDRICH COBURG. With almost all parts manufactured in-house, spare parts can be supplied even after many years of operation.

TAURUS

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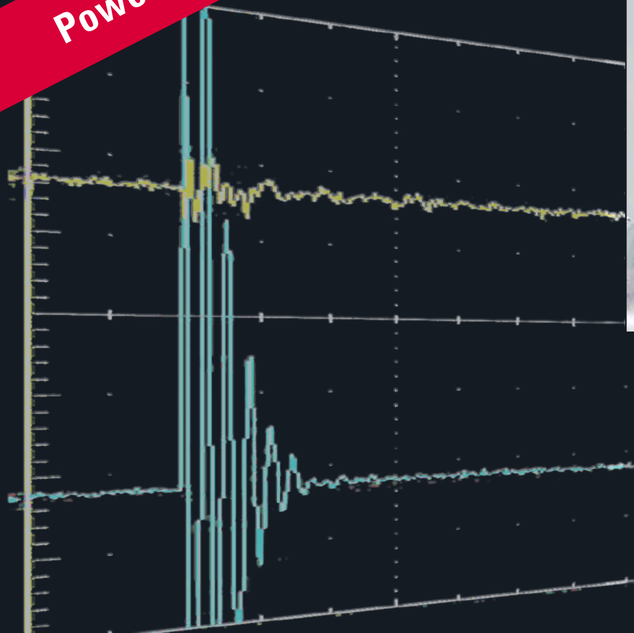
Powerful – Precise – Wear free!

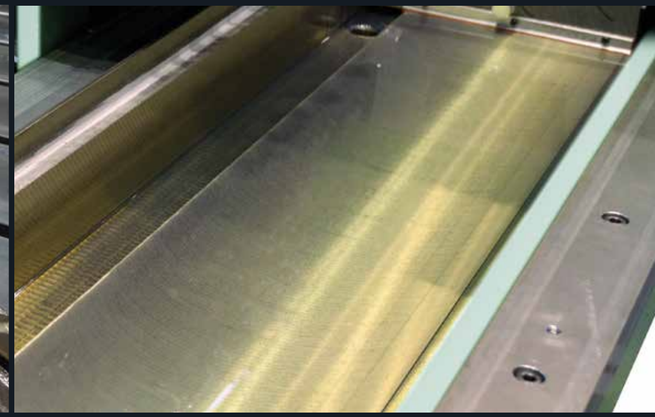


Powerful

- Spindle power 63 kW
- Robust design of cast iron parts with hydrostatic guideways
- Perfect size-/geometrical ratio of the guideways
- Optimized drive concept for best milling conditions
- Flexible spindle unit range for all applications

Precise

- Frictionless guideways, no stick-slip
- Stable machine geometry, always possible to re-establish by re-levelling
- Cast iron components and hydrostatic design for stability
- High total system damping characteristics
- Extremely high inherent geometric accuracy to reduce the need for electronic compensation



Wear free

- No wear hydrostatic guideways
- Superior machine damping characteristics improves tool life and lowers spindle work load
- More tolerant to machine impacts
- Proven WALDRICH COBURG technology in action

Five side & five axis operation!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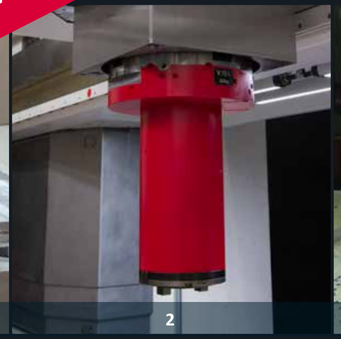
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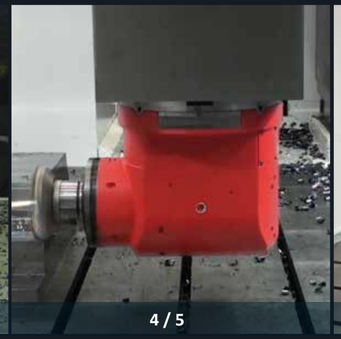
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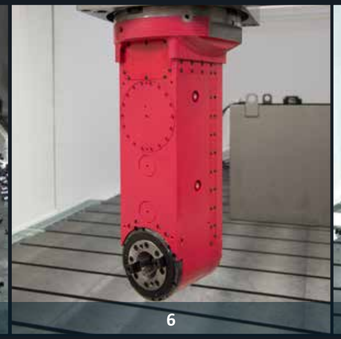
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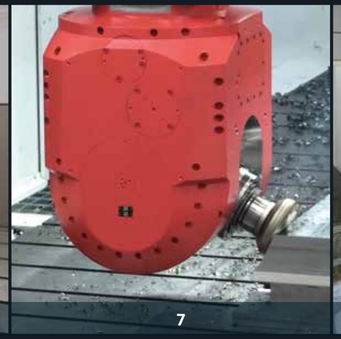
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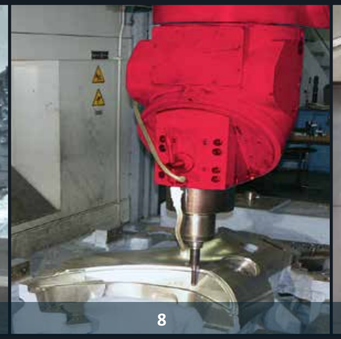
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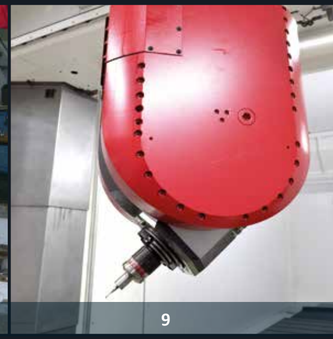
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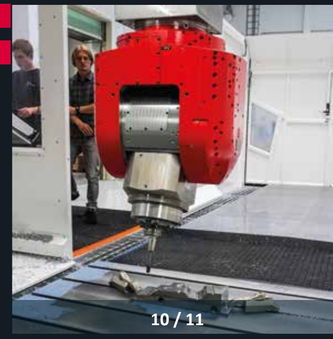
1	Vertical spindle unit	V 15 S	1.500 Nm	6.000 min^{-1}	63 kW
2	Vertical spindle unit	V 15 L	1.500 Nm	6.000 min^{-1}	63 kW
3	Vertical spindle unit	V 25 H	2.500 Nm	2.500 min^{-1}	63 kW
4	Horizontal spindle unit	H 15 S	1.500 Nm	6.000 min^{-1}	63 kW
5	Horizontal spindle unit	H 25 H	2.500 Nm	2.500 min^{-1}	63 kW
6	Horizontal spindle unit	H 07 L	700 Nm	2.500 min^{-1}	25 kW
7	Universal spindle unit	G 15 U	1.500 Nm	6.000 min^{-1}	63 kW
8	Universal nutating head	N 15 U	1.500 Nm	6.000 min^{-1}	63 kW
9	Universal offset spindle unit	G 15 O	1.500 Nm	6.000 min^{-1}	40 kW

10	High frequency spindle *	HF 30	300 Nm	10.000 min^{-1}	31 kW
11	High frequency spindle *	HF 07	70 Nm	20.000 min^{-1}	42 kW

* Only available with TAURUS 25 / 30 in HF version.

Options for spindle units

- 5-axis machining software package
- Measuring of spindle units with tool probe tip
- Spindle unit with tool holder HSK A-100 instead of ISO 50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Everything included!

Tool changer

With 100 tool pockets in the basic machine, extendable to 200 as an option, high flexibility for tooling is achieved.

The fast tool changer reduces the non-machining times to a minimum.

Spindle unit changer

Spindle units for TAURUS are produced in Coburg. These allow TAURUS to be customized to your workpiece.

The automatic changing system allows up to 4 spindle units to be stored.

Coolant system

The coolant cleaning system is located on the maintenance platform. A compact band-filter system is used, which is suitable for different machining requirements.

By using frequency controlled high pressure pumps for the inner and outer coolant supply, energy requirements are minimised.

By using screw-pumps the pressure for the inner coolant supply can be increased up to 70 bar.

Machine guarding

Stylishly designed and functionable!

The TAURUS guarding system is more than just splash and chip protection. The operator's raised platform, the chip conveyors and the gratings next to the table are integrated into the guarding.

The operator has a good clear view of the machining process through the large windows next to the operating panel. The sliding door into the machine has a wide opening. The large, but light hinged-doors at the front of the machine assist workpiece loading.

Highlights!

Foundation and levelling wedges

The installation of the machine at floor level, on a flat foundation block can reduce the foundation cost by up to 70%.

Foundation pit covers are not needed, chip deflection plates and chip conveyors are integrated into the machine guarding. The pre-installed levelling wedges reduce the installation time of the machine. The ergonomic levelling and re-levelling of the machine geometry, due to foundation changes, can be done at any time thereby extending the long term accuracy of the machine. The detailed foundation calculation as well as the shuttering and reinforcement plan can be optionally selected for TAURUS.

Control systems

According to requirements, TAURUS can be delivered with either Heidenhain TNC 640 or Siemens 840 Dsl.

Thereby you can operate TAURUS using your familiar control systems.

Ergonomic control panel

Working with TAURUS is great!

Because of the large display and the manufacturer's original keyboard, operating TAURUS is a pleasure.
The whole control station can be swivelled and the angle of the keyboard can be adjusted.

With the optionally available video camera or InPro productivity package, a separate tablet and docking station with additional functions is also included for the operator's use.

Energy box

TAURUS draws from years of refinement at WALDRICH COBURG with a focus on ease of maintenance and troubleshooting. Main electrical cabinets, hydraulic systems, coolant system, chiller system, valves, filters... are all organized for ease of access in the Energy Box.

Combined with modern tools like InPro software, energy recovery drive technology, and wear free guildeways the end user will clearly realize lower operating costs.

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A little bit more...?

Production package safety

This package includes a cleaning station for the tool flange and taper.

In addition, tool breakage detection using a laser is included.

Pallet changer

An optional pallet changer is available to allow part set-up in parallel with part machining. The fast double location shuttle takes only 3 minutes to exchange pallets. Extended chip conveyors keep the set-up area clean.

Fully enclosed guarding for the machine is included in the price of the pallet system.

Video camera

The dome-type video camera is located in the working area and allows the operator to view the far side of the workpiece.

The camera has swivel and zoom functions. The picture is shown on the InPro tablet.

InPro

InPro, the Interactive Production support allows ergonomic operation, increases the machine availability and contributes to machine safety. Maintenance personnel are assisted by a menu-guided system, the interactive diagnostics help for a speedy error search and the MDR gives information on machine use.

For more options, please feel free to contact us.

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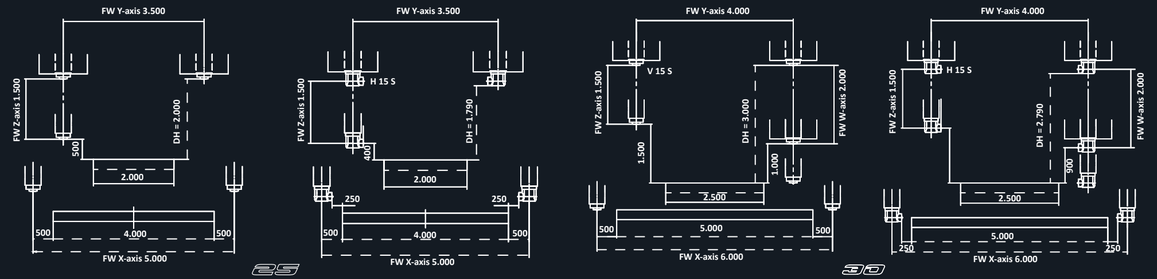
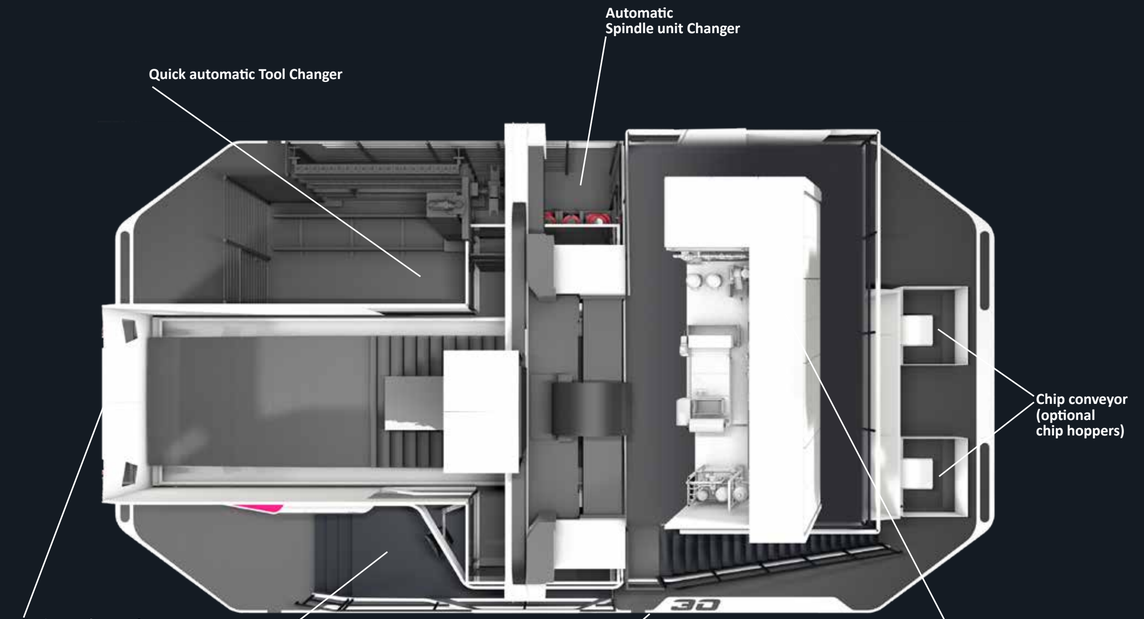
A very compact machine!





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