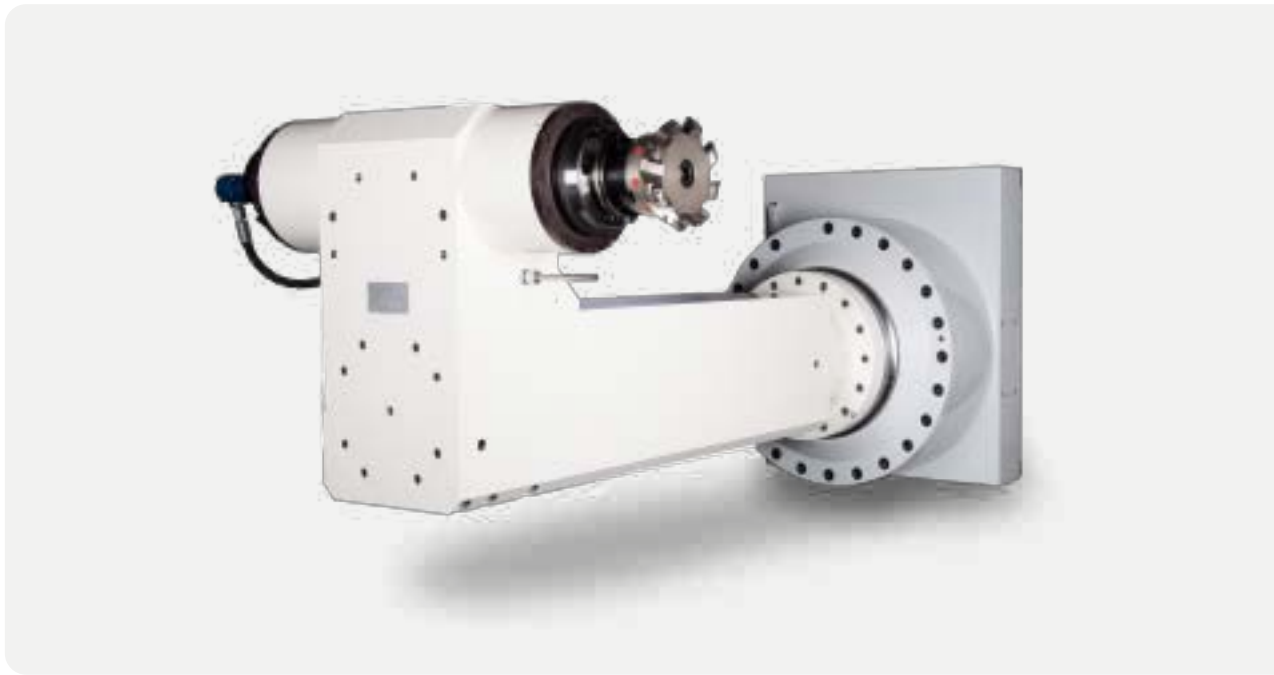




## Heads for Large-Scale Machines



## Tradition to Perfection.

The name [ROMAI](#) has stood for the highest precision and longevity for more than 60 years. Meticulous to the  $\mu$  – with the small and especially the very large.

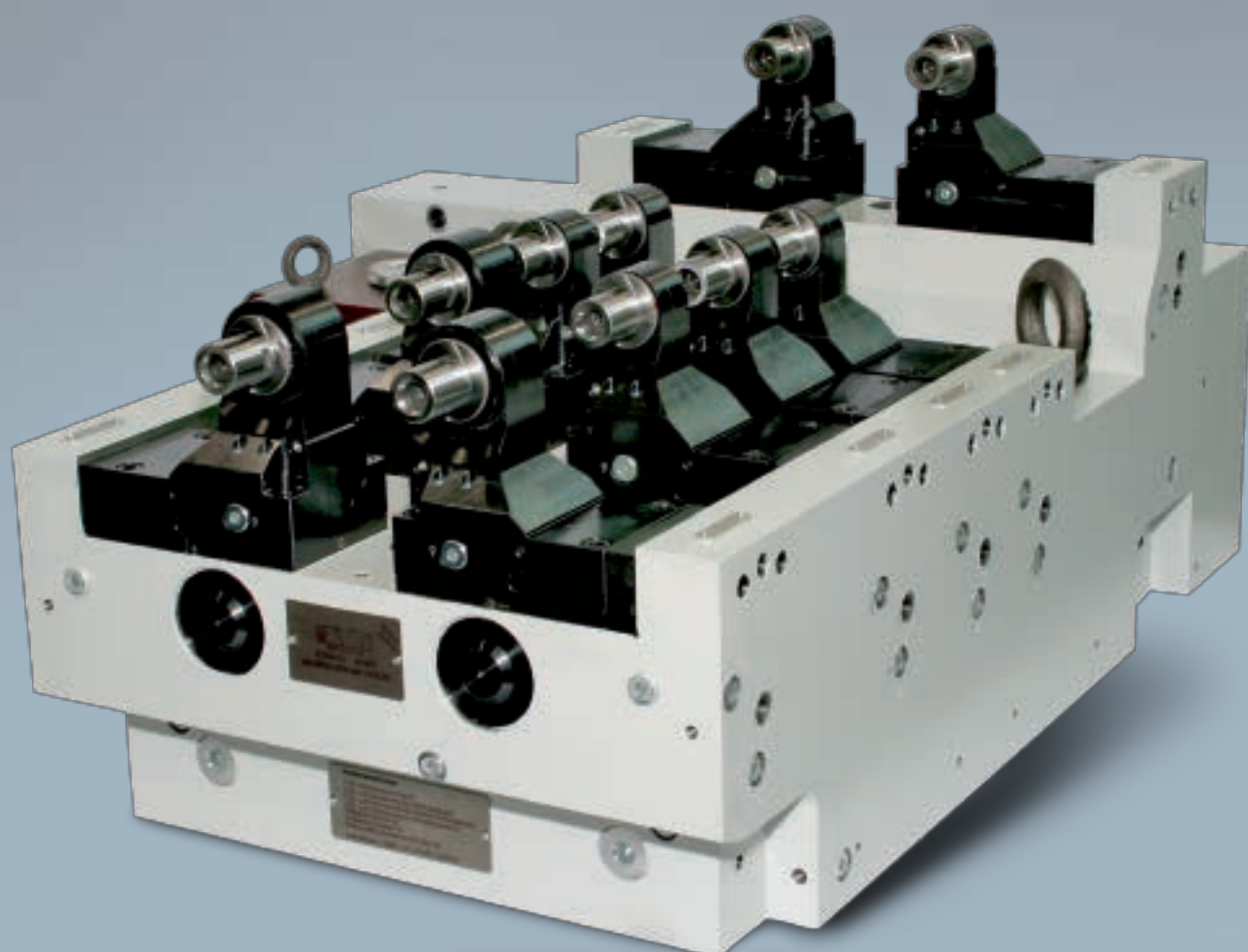
Achieving and maintaining precision under high load alongside process-reliability requires expertise and machining quality. That's when our experience becomes your factor for success.

[ROMAI](#) is experience. Tradition to perfection in huge dimensions.




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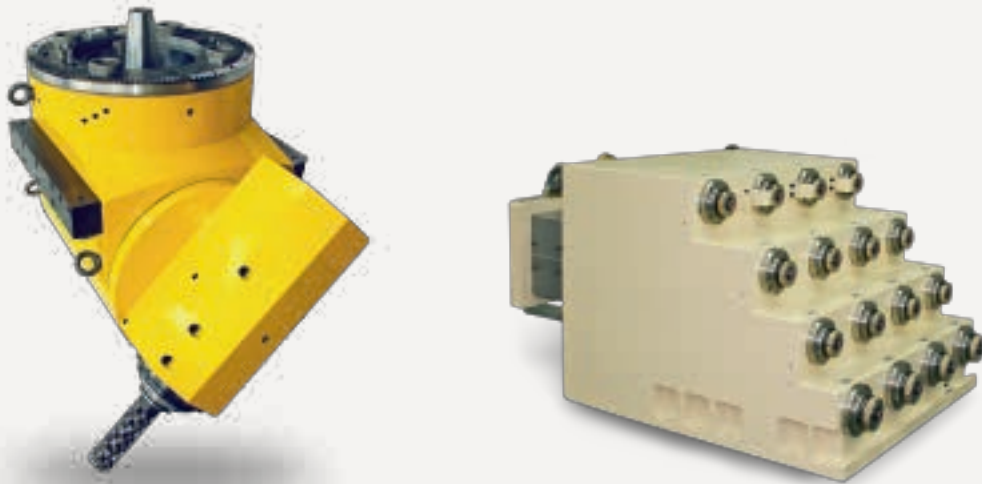


### Areas of Application

ROMAI heads for large-scale machines are utilised in heavy-duty machining with high torques, as well as in aluminium and wood machining with high speeds. From plant construction and mechanical engineering to aeronautics and astronautics through to wind turbine construction, ROMAI supplies numerous customers and partners - from machine manufacturers to users.

- 
- Highly-precise machining even with high torques
  - Machining of difficult-to-reach workpiece sections
  - Combination of several work steps
  - Minimisation of the number of workpiece clampings

Cost savings through reduced machining time



### Equipment Options

- Fully-automatic head and tool change
- Fully-automatic positioning and machining axes
- Axle drive via main spindle or torque motor
- Pre-defined axle positions via Hirth joints and/or with fine adjustment
- Gear spindles or motor spindles
- Electrical control unit and sensors
- Testing systems (e.g. tool breakage detection)
- Extendable quills (quill spindles)
- Multi-spindle versions
- Adjustable spindles
- Spindles for facing heads/actuating tools
- Gear reductions/transmissions
- Counter-bearing
- and many others





## EXAMPLES



- 2 positioning and machining axes (A-axis, C-axis)
- Axle positioning in 1°-steps via Hirth coupling and fine adjustment
- Automatic tool clamping
- Blown air, positive pressure and internal coolant supply
- Torque max. 4.000 Nm
- Weight approx. 3.000 kg



- Positioning axes (A-axis - manual, C-axis - automatic)
- Axle positioning in 1°-steps via Hirth coupling
- Automatic tool clamping
- Blown air, positive pressure and internal coolant supply
- Torque max. 1.400 Nm
- Weight approx. 990 kg



- Positioning axis (C-axis - automatic)
- Axle positioning in 1°-steps via Hirth coupling
- Automatic tool clamping
- Blown air, positive pressure and internal coolant supply
- Torque max. 2.400 Nm
- Weight approx. 780 kg



- Positioning axis (C-axis - automatic)
- Axle positioning in 1°-steps via Hirth coupling
- Automatic tool clamping
- Blown air, positive pressure and internal coolant supply
- Torque max. 750 Nm
- Weight approx. 640 kg



- Integrated motor spindle with up to 12.000 rpm
- Positioning and machining axis (A-axis)
- Axle drive via torque motor
- Automatic tool clamping
- Blown air, positive pressure and internal coolant supply
- Weight approx. 1.500 kg





- 6-station turret (HSK63)
- Torque max. 100 Nm/spindle
- Positive pressure, internal coolant supply
- Weight approx. 250 kg



- 36-spindles (HSK32/HSK40)
- Dimensions approx. 1.000 x 1.000 mm
- Positive pressure and internal coolant supply
- Circulating oil lubrication
- Weight approx. 2.000 kg



- 2-spindles (HSK50/HSK63)
- Both spindles pneumatical 190 mm extendable (quill spindles)
- Mechanical spindle clamping
- Positive pressure and internal coolant supply
- Weight approx. 390 kg



- Multi-spindle head with 12 HSK63 spindles
- Central MMS lubrication through the spindles
- 2 extendable spindles (quill spindles)
- 5 spindles with adjustable angle and offset
- Weight approx. 1.500 kg



- Spindle extension with a step-up gear ratio of 1:5
- Speeds of up to 3.000 rpm
- Torque max. 500 Nm
- Weight approx. 300 kg

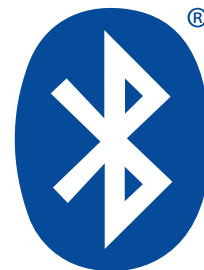
# Capturing Production Data in Real-Time Ready for Industry 4.0

ROlog (ROMAI-operation-logger) systematically determines the production data of ROMAI gearboxes and transmits these via bluetooth to a tablet, smartphone or the machine control system.

## Monitoring:



- Speed (maximum/average)
- Temperature (maximum/average)
- Impulses/impacts in several axes
- Hours of operation
- Moisture



contactless

The system can be integrated into almost any ROMAI transmission gear.

ROlog optimises maintenance cycles and prolongs the service life of your gearboxes. It enables longevity and process reliability in a new dimension.



## Big Heads for Big Ideas

There are people out there turning big new concepts into reality; who are creating machining innovations to meet the demands of globalisation, digitalisation and ecological development.

Are you at the forefront of developing new things? We're right there with you.

Perhaps we haven't yet come across the exact machining challenge you have for us. But our experience will enable us to develop the perfect solution for you.

That makes [ROMAI](#) unique. Try us out!



Established Rotational Mechanics

Angular Heads



Multi-Spindle Heads



Driven Tools



High-Speed Spindles



Machine Components



Heads for  
Large-Scale Machines



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