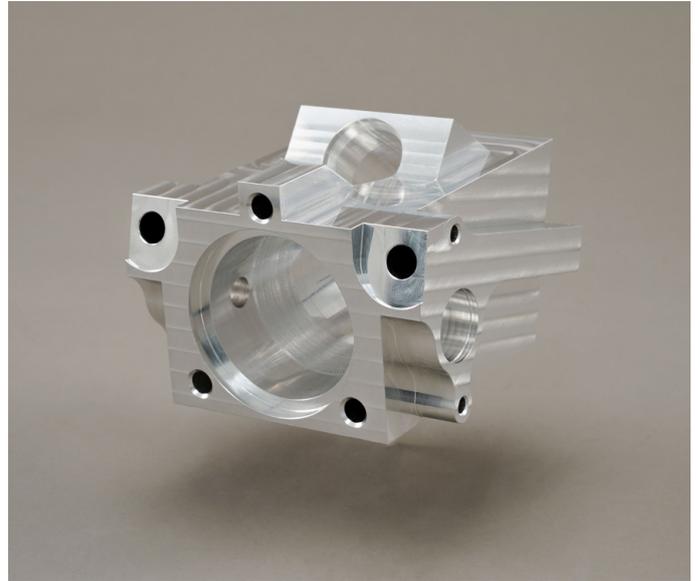


# Automatic reliable production of precise parts with PRECITEMP®



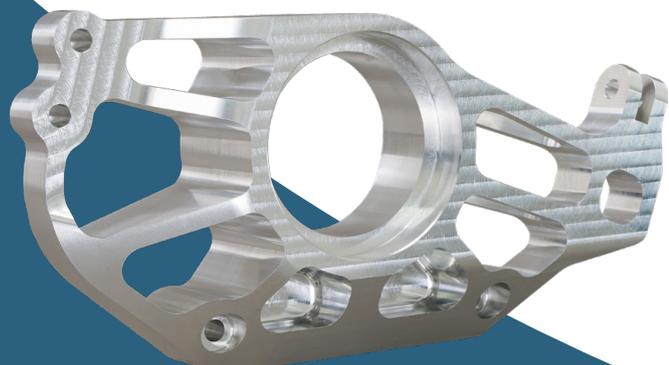
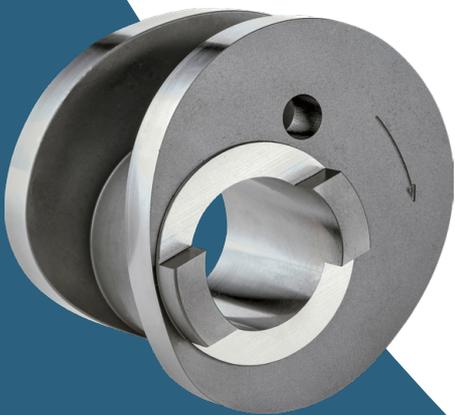
## AUTOMATIC RELIABLE PRODUCTION OF PRECISE PARTS

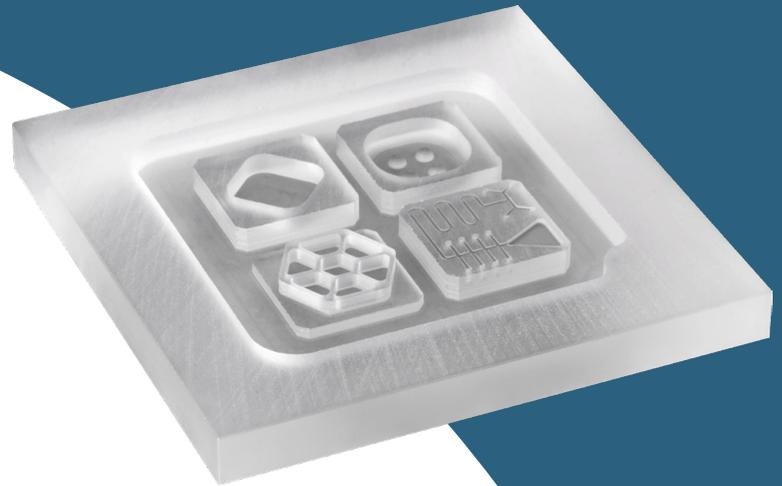
Really unmanned production automation requires stable machining processes that reliably maintain small tolerances over longer operating times. Thermal drifts due to internal heat sources in the machines or fluctuating ambient temperatures can make it necessary that parameters or zero positions on the machines have to be adjusted again and again. As a result, automated production does not really run without operators. Constant monitoring and fine-tuning is required.



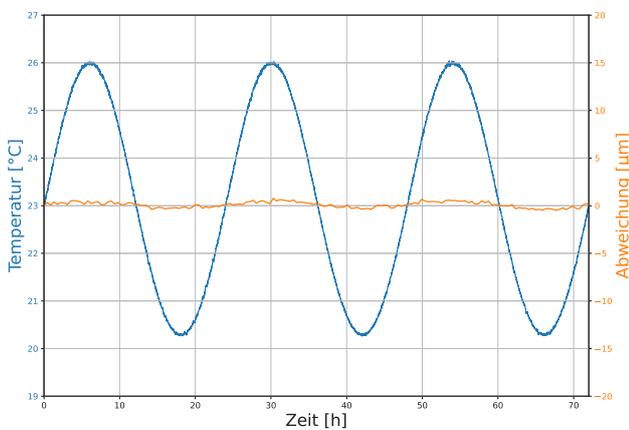
## PRECITEMP® NO MORE THERMAL DISPLACEMENTS OR GEOMETRIC CHANGES IN THE MACHINE

Röders milling and grinding machines have been optimized over many years for increasing precision, also for longer machining operations. Firstly, all internal heat sources of the machines were tempered in such a way that a change in the operation, e.g. the spindle speed or the feed rates, does not affect the geometry of the machines. In the past, however, a condition for optimal results was an ambient temperature at the installation site of the machines being as constant as possible. For the customer, this meant complex, precise temperature control in the production hall.





In a further development step, Röders has now succeeded in making the machines significantly more robust against fluctuations of the ambient temperature with the new PRECITEMP® technology. This technology is available in different levels, depending on the requirements of the customer parts and ensures stable zero points in the machine, even if the ambient temperature changes. Especially for 5-axis machining operations on different sides of the workpiece, this is crucial for maintaining small tolerances.



With the new PRECITEMP® technology Röders, previously mainly known for precision machining in mould and die making, now reaches out to completely new applications in automated precise parts production, especially where customers had problems holding tolerances on their machines without manual intervention. With different space-saving handling systems and own automation software that has been proven many times, optimally tailored solutions can be implemented by Röders alone for our customers, achieving the full cost saving potential of automated parts production.

## MILLING AND GRINDING IN ONE MACHINE

When milling comes to its limits in terms of precision, it is possible to combine milling and grinding in one set-up in the machine. In this way, even smallest tolerances in 3-axis or 5-axis applications are automatically and constantly held. Röders is the leader in the combination of milling and grinding in one machine and has over 20 years of experience in this field. It doesn't matter whether jig grinding, profile grinding or other grinding operations are applied.



## YOUR CONTACT

Further information especially about the different applications and workpieces please contact **Markus Anderten** at **+49 5191 603 468** or [hsc@roeders.de](mailto:hsc@roeders.de).