

## The advantages at a glance

### efficient

With the application of electric clamping systems you significantly reduce the energy consumption of your machines and thus increase the efficiency. Energy is used on demand, meaning only when movement actually occurs.

### precise

The substitution of hydraulics through electric clamping systems significantly increases the precision also in your production. Benefit from faster and more precisely controllable clamping systems.

### compact

The replacement of hydraulic elements through electrical components allows an existence completely without hydraulic aggregate. In engineering this results in significantly more compact and space-saving designs.

### low-maintenance

The implementation of electric clamping systems reduces your maintenance to a minimum. Cleaning, exchange and disposal of the hydraulic materials is completely omitted. The elimination of leakage is an advantage in matters of environmental protection.

### safe

The integration of mechanics into electronic control circuits ensures a maximum of operation- and machine safety. A constant actual/target comparison ensures that inconsistencies are recognised and remedied immediately.

Future

## The future is electric. With clamping systems by RÖHM.

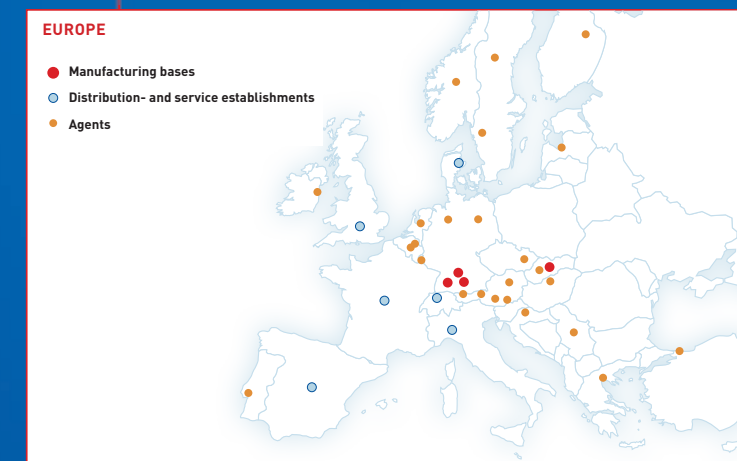
Electric clamping systems are still at the beginning of development. However, the trend to replace hydraulic propulsion with electro-mechanical propulsion is already evident. Hydraulic clamping systems will not disappear completely, as they continue to have their benefits in certain fields of application, but the electrical clamping is the solution of the future, which offers significant advantages for many applications.

There are several good reasons for the application of electric clamping systems: energy efficient, precise, maintenance free, compact, safe and on the whole a benefit in the topic of economy. Last but not least the connection of the clamping systems to the machine control is a convincing argument. This is evident in the e-EQUIPMENT by RÖHM.

**RÖHM – system supplier with a comprehensive product range** | We guarantee our customers wide-ranging engineering skills, detailed market knowledge, consistent project management and a comprehensive range of clamping technology – especially in the area of electric clamping systems. RÖHM offers, especially also with the e-EQUIPMENT, a huge selection of products for the complete assembly of almost all machines for the most diverse requirements and applications.

#### Innovation and engineering for sustainable success |

Creativity and flexibility combined with experience and readiness are the success insurance for us as a modern engineering partner open to innovations in the clamping technology. On this basis we ensure optimum service right across the entire product development process, this is also evident in the new e-EQUIPMENT by RÖHM: From concept phase and full technical project processing right through to production.



**RÖHM**  
driven by technology

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# Energy efficiency for us is a topic of the future, which we are solving in the presence.

Energy efficiency is a great advantage of electrical clamping systems. The innovative technology only uses energy, if a movement is actually performed. The trend of replacing hydraulic components with electro-mechanical components can be recognised in various fields of engineering.

With the development of the electrical clamping systems and electrical grippers of the e-EQUIPMENT RÖHM advances this trend and makes an important contribution to the sustainable increase of energy efficiency in the field of engineering.

**Many reasons speak for electric clamping systems |**  
A significant component of the energy usage in hydraulic components is caused by the constant energy provision. The removal of the hydraulic units in electric clamping systems not only reduces the usage of energy, it also solves the constant risk of leakages and thus protects the environment. The greater precision is another advantage. Added to this is the fact that electronic systems are compact, require less maintenance and ensure greater operational safety due to the elimination of leakages.

The connection of mechanics and electronic offers further advantages such as greater flexibility, excellent controllability and the option for the direct connection of the drives to primary control systems.

As the world-wide first and only supplier with the e-EQUIPMENT we offer to our customers a solution, which makes the fully electric processing centre a reality now.

NEW

## Electrical steady rest

The new electrical steady rest is driven by a servo motor. All functions can be integrated in the NC control. This way, long workpieces like shafts, axes or spindles with a diameter of 15-170 mm can be securely and precisely clamped in the turning and grinding machine. State-of-the-art control technology in combination with precise mechanics ensures energy-saving use.

## Electrical clamping head

At the RÖHM electrical clamping head the release occurs electrical. The integrated transmission to the draw-down forces increases the spring-operated tension up to 3-4 fold. Additionally the control permits the exact return of the unit to the final position with predefined force.

## Electrical gripper

Energy efficiency and the greatest flexibility are the outstanding features of the newly developed electrical gripper by RÖHM. On one hand it is perfectly suitable as an economic servo axis with integrated propulsion and stable role guidance, e.g. for the holding of workpieces during burnishing and bending. On the other hand the RÖHM electrical gripper is ideal for the conventional clamping technique, because it grips parts of various sizes without modification. Other advantages are the very short cycle times from 70 ms per clamping process as well as the flexible clamping power of 10 N to 400 N, which enables sensitive handling as well as powerful clamping due to an integrated sensor.

## Clamp by Wire

The tools are clamped or released purely with electric energy from a linear motor within 50 ms with the mechatronics clamping device clamp-by-wire, which ensures a quick, perfect and safe exchange. Here information such as wear, clamp shaft diameter or pollution at the tool shaft is permanently controlled - this ensures the perfect fit of the tool and thus maximum production quality.



## Electrical cylinder with through-hole

The electrical cylinder with through-hole EHS combines the strengths of precision mechanics with those of the most modern control technique and electronics. The serial model possesses a standard servo motor with 1.0 kW power, a through-hole of 37 mm and produces an axial power of 50 kN. The self-locking design of the motor ensures maximum safety even in case of power failure.

NEW

## Electrical cylinder without through-hole

The electrical cylinder without through-hole EVS combines the strengths of precision mechanics with those of the most modern control technique and electronics. The serial model possesses a standard servo motor with 1.0 kW power and an 8 mm large passage for cooling lubricant and cleaning media. Suitable for vertical and horizontal attachment.

## Electrical release unit

The electrical release unit replaces the hydraulic release unit at the spindle end for the release of tool clamping systems. RÖHM offers a compact unit for universal application, which can be perfectly integrated into the machine control unit.

NEW

## Electrical clamp release unit

The compact electrical clamp release unit in combination with the RÖHM Super Lock enables implementation of extremely space-saving spindles. This combination provides the user with a state-of-the-art clamping system for use at very high rotational speeds.

## Super Lock

The Super Lock tool locking system operates with a rotation-symmetrical collet and functions completely without springs. It displays a significantly more compact construction than common, classic spring-loaded HSK-clamping systems. At the same time it offers highest balancing quality as well as an excellent static and dynamic stiffness. Thus, the Super Lock clamping unit enables high speeds at a compact build, in particular in combination with the electric clamp release unit or the „by Wire“ method.