# **REGO-FIX** Product Highlights

# **ER Collets**

### The original and still the best

REGO-FIX invented the ER collet in 1972. It became the ISO 15488 standard, ideal for machining applications from milling, drilling and reaming to tapping, grinding and more. We continue to expand and perfect our ER collet system – and around the world, more shops use and trust it than any other brand.



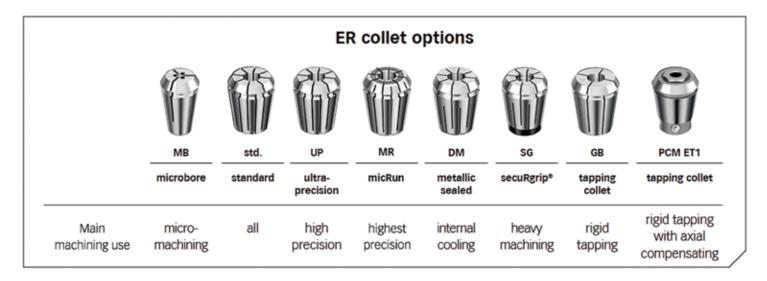
#### The REGO-FIX difference

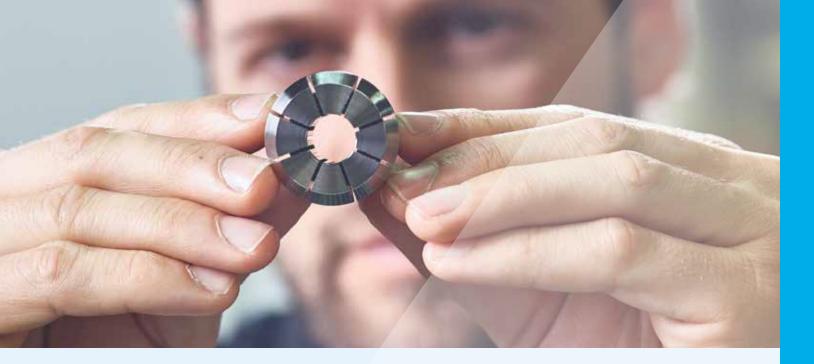
- // The world's most accurate, consistent, repeatable collet system
- // Maximum precision, balance and tool life throughout a large system of matched, compatible products
- // Guaranteed TIR over the full clamping range
- // Up to 20% more clamping length in smaller diameters
- // Superior surface finishes improve fit accuracy
- // Specially formulated spring steel wears better, lasts longer and improves flexibility
- // Slot design supports a wide clamping range with the best TIR
- // Available in Standard, Ultra precision, and micRun
- // All Ultra precision (UP) collets inspected for 100% compliance

#### Wide selection of ER collets

- // Sizes from ER 8 to ER 50
- // Diameters from 0.0079" (0.2 mm) to 1.4173" (36 mm)





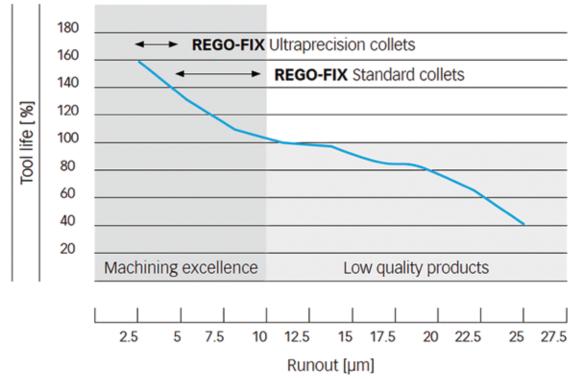


#### Cut costs with better collets.

If you use one \$50 endmill per day, switch from a side lock endmill holder (typical TIR = 0.0010'') to a REGO-FIX ER collet toolholder (TIR = <0.0004'') and **save nearly \$8,000 each year per toolholder**.

#### How TIR affects tool life

Enhance your endmills, drills and reamers with better-quality toolholders and ER collets from REGO-FIX for lower TIR and significant cost savings.





# **ER Toolholders**

Minimize runout and boost productivity for traditional machining applications with ER toolholders, collets and Hi-Q<sup>®</sup> nuts.

#### The REGO-FIX difference

- // Designed and manufactured to exceed the ER spec
- // Better fit with three-point measurement of all AT3 steep tapers
- // Tighter thread tolerance for higher holding torque and lower TIR
- // Longer tool life with collet-to-taper TIR of <0.0001" (3  $\mu$ m)
- // Unique 100% precision balancing supports the highest machine rpm
- // Special formulated steel improves wear and strength
- // Full lot traceability provides maximum reliability and process control



Scan the QR code to see ER products in action.













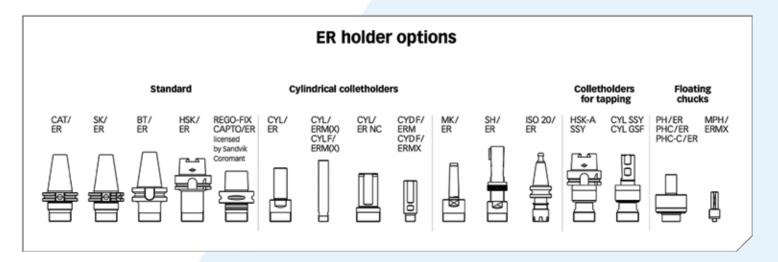
Certified by Sandvik

Plus – licensed by BIG Daishowa



#### Wide selection of ER toolholders

- // CAT, BT, SK, HSK, XL and Double XL
- // REGO-FIX CAPTO certified by Sandvik
- // REGO-PLUS DUAL CONTACT (BIG Plus) licensed by BIG Daishowa





# **ER Nuts**

REGO-FIX's ER collet clamping nuts are manufactured beyond the DIN 6499 standard for a better fit between toolholder and collet.

#### **The REGO-FIX difference**

- // Patented collet locking system retains collet in nut for easier assembly
- // Balanced for high-speed applications
- // Up to 80% higher gripping force than standard non-treated clamping nuts
- // Special anti-corrosion surface treatment for longer life
- // Optimal contour with rounded thread start prevents collet damage during tool changes
- // Available with sealing disk for coolant-through tools

#### Wide selection of ER nuts

- // Mini nut with minimal external diameter
- // Mini high-speed clamping nut for high-rpm machining
- // Externally threaded clamping nut for floating chucks, ERA Zero-Z® toolholder and live tooling
- // Slip-off proof intRlox® mini clamping nut for safe assembly

ER collet nut options					
Hİ-Q*/ER	Hi-Q*/ERB	Hi-Q°/ERM	Hi-Q*/ERMX intRlox*	HI-Q*/ERAX	ER MS*
standard nut	with friction- bearing for higher clamping force	mini nut	slip-off proof mini nut	external thread and slip-off proof	up to 80,000 rpm





### Hi-Q<sup>®</sup>/ERMX and Hi-Q<sup>®</sup>/ERMXC intRlox<sup>®</sup>

#### The REGO-FIX difference

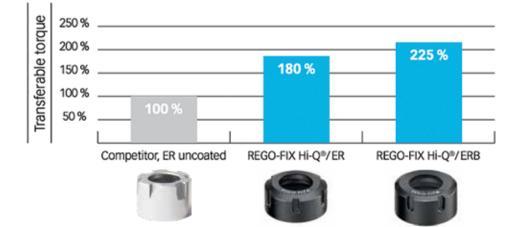
- // Ideal for lathes and Swiss turning machines
- // Slim design fits machines with limited space
- // Patented intRlox® profile for safe handling
- // Slip-off proof design with all the advantages of a regular mini clamping nut
- // Easy, safe clamping with MX wrench or socket head
- // Hi-Q<sup>®</sup> design for added clamping forces
- // Compatible with standard mini nut thread design
- // Works with REGO-FIX sealing disks (DS/ER) and coolant flush disks (KS/ER)

#### Wide selection of Hi-Q nuts

- // For REGO-FIX ER toolholders with mini thread and for cylindrical holders
- // Available in ER 8, ER 11, ER 16, ER 20 and ER 25 series
- // Coolant versions available (ER 11, ER 16, ER 20 and ER 25)

#### Torque comparison of different clamping nuts

REGO-FIX Hi-Q®/ER and Hi-Q®/ERB vs. competitor nuts (Source: In-house testing)





ERMX Spanner



# Lathe and Swiss Style Machine Products

### reCool®

#### **Maximum cooling**

Made for static and rotary applications, reCool works with your existing toolholding equipment to offer peripheral and internal cooling.

#### **The REGO-FIX difference**

- // Convert existing tooling systems to through coolant in only two minutes
- // reCool adapter converts inner-threaded driven tools to outer threaded
- // Speeds up to 12,000 rpm
- // Coolant pressures up to 150 bar with high-pressure hose, standard hose max 100 bar/1400 psi
- // Maintenance-free coolant lubricated bearings
- // For both emulsion and oil coolants
- // Not for use with sealed collets



#### Wide selection of reCool rotary RCR (for use with spindles)

- // Cost-effective solution for ER 11 to ER 40
- // For ER and ERM nuts in driven tools and turning machines
- // For ER collets to ISO 15488/DIN 6499
- // For coolant-through tools (with sealing disks DS) and peripheral cooling (with coolant flush disks KS)



Scan the QR code to see reCool and our other ER products in action.



### Static reCool® RCS

#### The REGO-FIX difference

- // Convert existing tooling systems to through coolant in only two minutes
- // Optimum coolant supply for all tools and for difficult-to-access machining
- // No scattering or spray losses
- // Optimized coolant quantity for each tool
- // Increased chip removal
- // Directs coolant straight onto cutting tool
- // Cost-effective, low-maintenance design
- // Coolant pressures of up to 150 bar/2100 psi\*





#### Retrofitted internal cooling with reCool®

#### Wide selection of reCool static RCS (for use with static holders)

- // For ER collets (DIN 6499/ISO 15488) in stationary toolholders with external fine threads\*\*
- // RCS/ERMX for emulsion and oil coolants
- // For coolant-through tools (with sealing disks DS) and for peripheral cooling (with coolant flush disks KS)
- // intRlox (ERMX) nut design for safety
- \* With high-pressure hoses RHS-HP. 100 bar/1450 psi with standard hose.
- \*\* reCool static can also be used for internal threading with the corresponding adapter.

### Sealing and coolant-flush disks

Use your regular non-sealed collets for internal and peripheral cooling - and save the cost of new collets.

#### The REGO-FIX difference

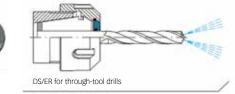
- // Sealing range of 0.5 mm
- // For applications up to 2100 psi
- // Prevents dirt and chips from entering collet slots
- // O-ring for aggressive coolant (VITON®-quality)
- // Quick-change sealing disks for required tool shank diameters
- // Better cooling and lubrication extend tool life and support chip removal

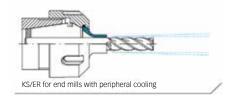
### Wide selection of sealing and coolant-flush disks

// Universal use with all REGO-FIX collets and coolant nuts



DS/FF







# Lathe and Swiss Style Machine Products

### Hi-Speed reCool® (RCR-Hi)

#### The REGO-FIX difference

- // Quickly and easily retrofit high-speed and high-frequency spindles with internal cooling
- // Through-coolant conversion for up to 40,000 rpm spindles and tools
- // 100 bar maximum pressure
- // Works with emulsion and oil-based coolants
- // Ceramic coating for reduced friction

#### Hi-Speed reCool (RCR-Hi) collet and tool sizes

- // Available in ER(M) 11 and 16 sizes
- // For tool shank diameters of 3 mm-10 mm



### **Externally threaded reCool (RCR-AX)**

#### The REGO-FIX difference

- // Quick-installing internal coolant conversion optimized for turning centers
- // For lathes up to 12,000 rpm and internally threaded live tools
- // Slim profile for minimal interference
- // 100 bar maximum pressure
- // Works with emulsion and oil-based coolants
- // Copper-like coating for reduced friction

#### Wide selection of externally threaded reCool (RCR-AX)

// Available for 3 mm-20 mm tool shank diameters





### Swiss automatic toolholding

#### **The REGO-FIX difference**

- // The world's most accurate collets and cylindrical holders
- // Hi-Q mini nut design for ample clearance on all cylindrical holders and adapters
- // intRlox anti-slip nuts available for additional safety on all mini-threaded holders

#### Wide selection of ER tooling for Swiss automatics

- // Cylindrical shanks
- // Cylindrical shanks with flats
- // Double ended

### **SwissQuick Collet Adapters**

#### The REGO-FIX difference

- // Preset tool length offline to replace worn tools in seconds
- // Short mini-holders with solid ER body profile on the back and smaller ER series cavity on the front
- // TIR of less than 0.0001" from ER cavity to taper O.D.
- // h6 precision ground shanks for precise roundness and centering
- // Specially formulated tool steel improves strength on all mini-threaded holders
- // Most versions include a through-tool coolant channel
- // Largest variety of metric and inch sizes, with both standard and coolant-through nuts

#### Wide selection of SwissQuick ER to ER adapters

- // ER 11 to ER 32
- // ER cavity outputs from ER 8 to ER 20
- // Fit all ERM holders with intRlox anti-slip nuts for added safety



Scan the QR code to see Lathe and Swiss products in action.

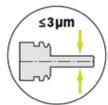




# The powRgrip<sup>®</sup> System (PG)

Excellent runout and high vibration damping with easy, secure handling for demanding high-speed milling and drilling. The safest clamping system available: No heat, fumes or EMF radiation.

#### **Key advantages**



Total system runout TIR ≤3µm at 3xD.



Tool ready for use in less than 10 seconds.



Excellent vibration damping



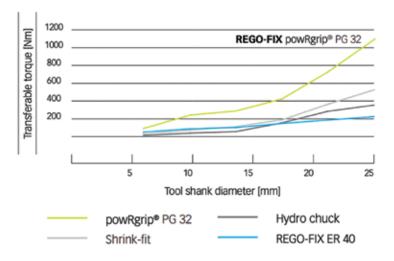
Maximum clamping force and low runout, even after 20,000 tool changes.

#### The REGO-FIX difference

- // Total system runout TIR  $\leq$ 3 µm at 3 x D for accurate machining and long tool life
- // Excellent vibration damping
- // Prepare a tool for use in less than 10 seconds
- // Maximum clamping force and low runout, even after 20,000 tool changes

### Transferable torque of the powRgrip<sup>®</sup> System

Measured transferable torque per shank diameter/Source: In-house testing



### The safest, fastest and strongest toolholding assembly system

- // High-precision powRgrip collets
- // powRgrip toolholders
- // powRgrip clamping units (automatic or manual)



#### How the powRgrip<sup>®</sup> System works

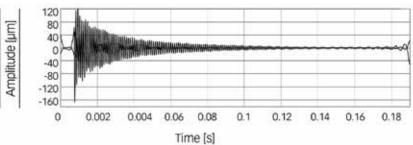
- // Insert the powRgrip collet into the powRgrip toolholder
- // Insert the cutting tool into the powRgrip collet
- // Use a powRgrip toolsetter to clamp collet and cutting tool into the powRgrip toolholder



#### **Industry-leading vibration damping**

The press-fit powRgrip system provides much higher vibration damping than competing products. Broken surfaces – collet against cutting tool and toolholder against collet – increase the damping coefficient further.

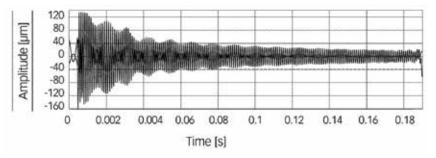
#### Vibration measurement | powRgrip®



Amplitude of the REGO-FIX powRgrip® toolholder

#### Vibration measurement | shrink-fit holder

Amplitude indication of a standard shrink-fit holder



#### Testing done by:



Institute for production and high-performance laser technology TET Technical University Vienna



Scan the QR code to see powRgrip in action.

# **PG toolholders**

#### **The REGO-FIX difference**

- // Unmatched accuracy and flexibility with precise matching tapers on powRgrip toolholders and collets
- // Interchange collets and customize powRgrip toolholders for inch, metric, coolant-through and coolant-flush options

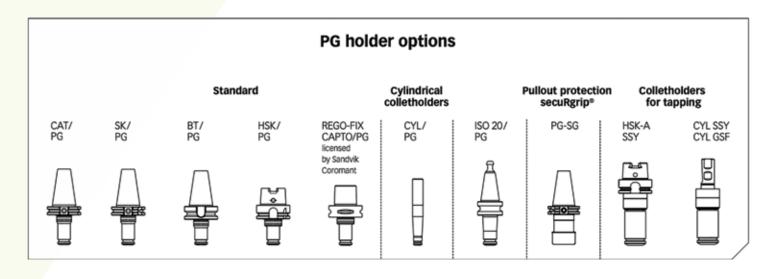
#### Wide selection of powRgrip toolholders

- // Multiple nose profile options for popular holders (CAT, HSK, BT, SK)
- // Certified and licensed specialized taper formats (BIG Plus, CAPTO)



BIG Plus- licensed by BIG Daishowa





### secuRgrip®

#### **The REGO-FIX difference**

- // Improve process reliability and overall productivity
- // Save the cost of replacing damaged tools
- // Form fit for 100% pullout protection during rough machining
- // No tool-shank modification required
- // Extra protection for worry-free machining, especially with expensive workpieces
- // Threaded insert fits in any tool with a Weldon flat

#### Wide selection of secuRgrip toolholders

- // Available for PG 15, PG 25 and PG 32
- // Available for all standard tools with Weldon flat (10 mm-25.4 mm)



# **PG Collets**

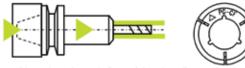
#### powRgrip Standard Collets (PG)

- // Use with either non-coolant or with coolant-through tools
- // Slot design mechanically seals each collet for internal through-tool coolant at up to 2000 psi



#### powRgrip Coolant Flush Collets (PG-CF)

// Produces a high-pressure peripheral "sleeve" of coolant around the tool shank and to the cutting edges



With coolant channels for peripheral cooling

#### powRgrip Short Shank Collets (PG-S)

- // For cutting tools with shanks too short for standard collets
- // 3 mm-6 mm shorter engagement than standard collets
- // Minimal loss of concentricity
- // Includes back-up screw to preset tool projection length with presetting device (VEW)
- // Suitable for coolant-through tools
- // Available for holders in PG series 6, 10, 15, 25 and 32

#### powRgrip Long Shank Collets (PG-L)

- // For cutting tools with shanks too long for standard collets
- // 3 mm-6 mm longer engagement than standard collets
- // No loss of clamping force or concentricity
- // Suitable for coolant-through tools
- // Available for holders in PG series 15, 25 and 32

#### powRgrip CoolBore Collets (PG-CB)

- // Three different coolant options combine the optimal toolholder with the perfect cooling
- // Flood- and internal cooling as well as two variants for peripheral cooling provide the best solution for the highest demands





Efficient chip remova







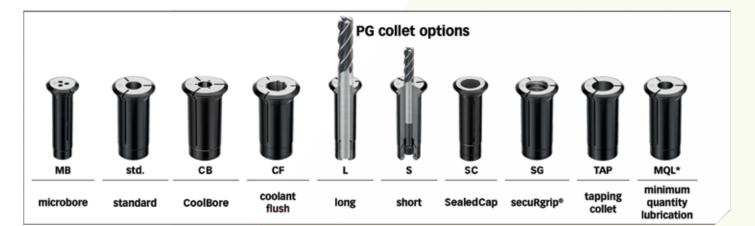
secuRgrip<sup>®</sup> compatible on request

#### powRgrip SealedCap Collets (PG-SC)

// Designed to protect the collet and toolholder from entering dust or debris while machining ceramics, glass, sintered carbide or graphite



Scan the QR code to see powRgrip in action.





# **PG for Lathe Machines**

Apply the precision, holding power, repeatability and ease of use of REGO-FIX PG systems specifically designed for your lathe machines.

Significantly shorten your machine setup times with these innovative solutions.

### **QuickFlex Quick Change System**

- // Collet chuck adapters
- // PG collet type PGST
- // MPHC ER floating chuck adapters with internal coolant
- // Metallic sealed ER-DM collets



Scan the QR code to see Lathe and Swiss products in action.





### **MTSK Quick Change System**

// PG quick-change adapter

// PG collets in standard, CF Cool Flush, CB CoolBore, Short, secuRgrip and Tap versions



### EWS Varia VX Quick Change System

// VX adapter for PG

// PG collets in standard, CF Cool Flush, CB CoolBore, Long, Short, secuRgrip and Tap versions

### PST – Polygon Shank Taper System

- // Driven tools with ISO 26623-compatible interface
- // PG collet chuck adapter

// PG collet type PGST







# powRgrip Toolsetters

// Unique die system maintains accuracy, safety and repeatability on every tool press

// No heat or toxic fumes

#### **The REGO-FIX difference**

#### **Motorized units**

// Automatic or manual operation

- // Press one button to clamp a tool in less than 10 seconds
- // Up to 9 tons of clamping pressure
- // Accepts all PG series (6, 10, 15, 25, 32) via interchangeable dies
- // Unique die system maintains accuracy, safety and repeatability on each and every tool press
- // No need to set parameters
- // No heat or toxic fumes
- // Standard 120v or 220v power

#### Manual unit

// Hand pumped with up to 6 tons of force

### PGU 9800 (motorized, with touchscreen)

- // Quieter motor and redesigned controls
- // Touchscreen displays cycle count by tool size, status codes, unit information
- // 2-year warranty







Scan the QR code to see powRgrip in action.



# Metrology

#### **3D-EdgeMaster**

- // Shorten setup time and ensure part accuracy
- // Repeatable accuracy of  $\leq$ 0.01 mm
- // Set zero points, probe reference edges and workpieces, calibrate measuring paths, center machine axes and determine bore centers
- // Simple, fast, precise, consistent and durable
- // Metric and inch sizes
- // Short and long probe options available
- // IP 67-compliant shockproof and splashproof ergonomic design
- // Full technical certification data available

#### **MasterBar**

- // Check spindle runout, spindle and arbor alignment, and arbor length
- // Boost part quality and reduce scrap
- // Minimize risks of spindle damage and maximize process reliability
- // Recheck runout and parallelism after a spindle crash
- // Ground to the same exacting specifications as REGO-FIX toolholding products
- // Cylindricity of  $\leq 2 \mu m$ , runout (cylindrical shank to taper) of  $\leq 3 \mu m$  and axial runout (flange to taper; HSK, BT+ and CAT+ only) of  $\leq 0.05 \mu m$
- // Available with HSK, steep-taper ST, BT and CAT interfaces, and in a set with multiple tips/tip lengths
- // Custom packaging doubles as full-support storage
- // Full technical certification data available





Steep taper MasterBar ST

Steep taper MasterBar BT

Steep taper MasterBar CAT



MasterBar

HSK





Scan the QR code to learn more about Metrology.

### Accessories



#### **Spindle Taper Cleaner**

- // Available for most spindle types
- // Insert the device and rotate it to clear away chip fragments, oil and dirt
- // Recessed fleece strips bonded into grooves provide thorough cleaning action
- // Use dry and without detergents
- // Enable toolholders to fit correctly
- // Clean with a mild detergent and soft brush, and dry with compressed air



#### **Taper Cleaning Device**

- // Quickly eliminate dirt and debris that can transfer to the spindle and other toolholders
- // Three rotating brushes clean dirt, dried emulsion and light surface rust without damaging cone tolerance
- // Insert the toolholder, secure it with the fixating screw and set the built-in timer
- // Base unit plus interchangeable interface cleaner with tool-free mount
- // Available for SK 30 to SK 50 and for HSK A, C and E in sizes 40, 63 and 100
- // Other versions available on request



#### TORCO-BLOCK tool assembly assistant

- // Set tightening torque correctly with any wrench
- // No reference charts, special tools or over-torqued tools
- // Indicator rings for all ER sizes (ER 11 to ER 32) and shaft diameters (1 to 22 mm)
- // Adapters available for all standard spindle Interfaces



#### **Ultrasonic cleaning unit**

- // Dimensions: 30" (with lid open) long x 13" wide x 18" high
- // Cleaning Tank: 12" long x 8" wide x 9" deep
- // Total Liquid Capacity: 3 Gallons
- // Ultrasonic Power: 600 watts peak/300 watts avg
- // Heat Power: 500 watts
- // Electrical Requirements: 110 V, 7 A



# A tradition of excellence, a commitment to customer success

Fritz Weber founded REGO-FIX in 1950. His curious nature, innovative spirit and determination led to the invention of the ER clamping system in 1972, which became the international industry standard in 1993. Today, the founder's three sons – Andreas, Stefan and Richard Weber – run REGO-FIX as an international family-owned company.



#### We make and inspect everything we sell in our Switzerland factory.

REGO-FIX USA (Whitestown, Indiana) maintains maximum inventory to provide 95% same-day shipping on all product orders for customers in the United States, Canada and Mexico.

#### We deliver machining excellence worldwide.

Our growing network of more than 50 international subsidiaries supplies meticulous quality to customers around the globe.





# Tech Lab services from the REGO-FIX Tech Team

- // Product customization
- // RFID inventory-tracking data chip installation
- // Toolholder balancing
- // HSK coolant tube installation
- // secuRgrip thread modification



Scan the QR code to learn more about Tech Lab services.





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