

powRgrip® for mold & die
Trustworthy toolholding solutions

REGO-FIX ▲

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Introduction

powRgrip shines in mold & die manufacturing

Extraordinary performance and holding capabilities.

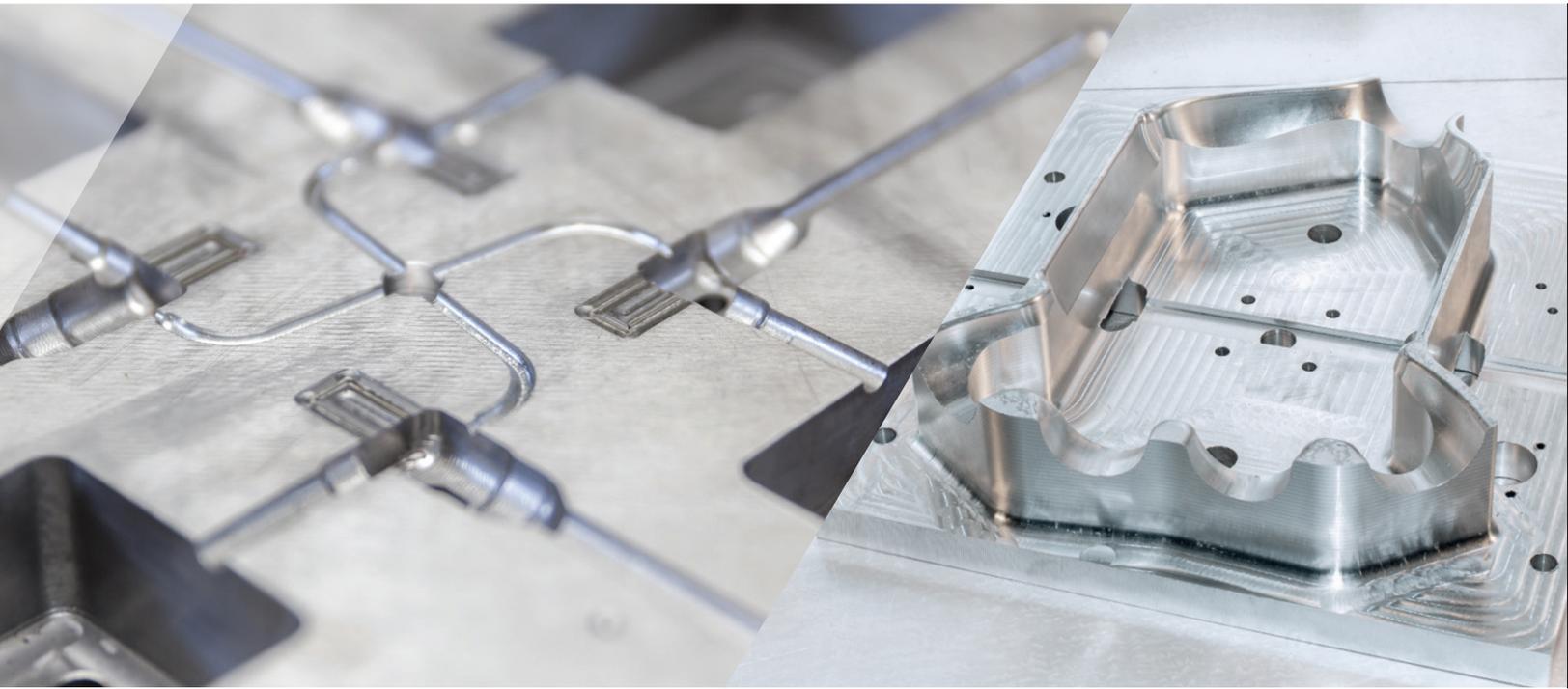
Absolute precision As mold & die maker, your customers are demanding higher precision, more complex forms and faster delivery. To meet these challenges, you need a toolholding system that can provide the utmost in precision, performance and reliability.

The REGO-FIX powRgrip (PG) toolholding system delivers. PG can optimize all of your mold & die part machining operations and help you manufacture each mold and die to exact tolerances and with an extraordinary surface finish – all while maximizing your productivity, lowering your cost per part and shortening your cycle times.



Swiss quality standard

Our products marked Swiss made are manufactured at our headquarters in Tenniken, Switzerland.



Features and benefits

powRgrip outperforms all other tooling systems

Developed especially for high-speed cutting and high-performance cutting strategies, powRgrip optimizes productivity, improves precision and boosts flexibility to adapt to changing mold and die machining needs.

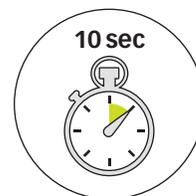
powRgrip gives you confidence and peace of mind in knowing that you run the most advanced toolholders ever made. Here is what makes powRgrip the best.

Speed/ease of use Tool change outs in less than 10 seconds and easy Z-height adjustments in any standard presetter without the need for expensive adjustment tools.

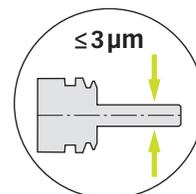
Precision Precisely engineered and balanced by design, powRgrip delivers TIR of $<0.0001''$ ($3\ \mu\text{m}$), along with precise length adjustment repeatability of $<0.0004''$ ($10\ \mu\text{m}$).

Quality Swiss-made and with all perfectly matched components for optimal fit, accuracy and long tool life.

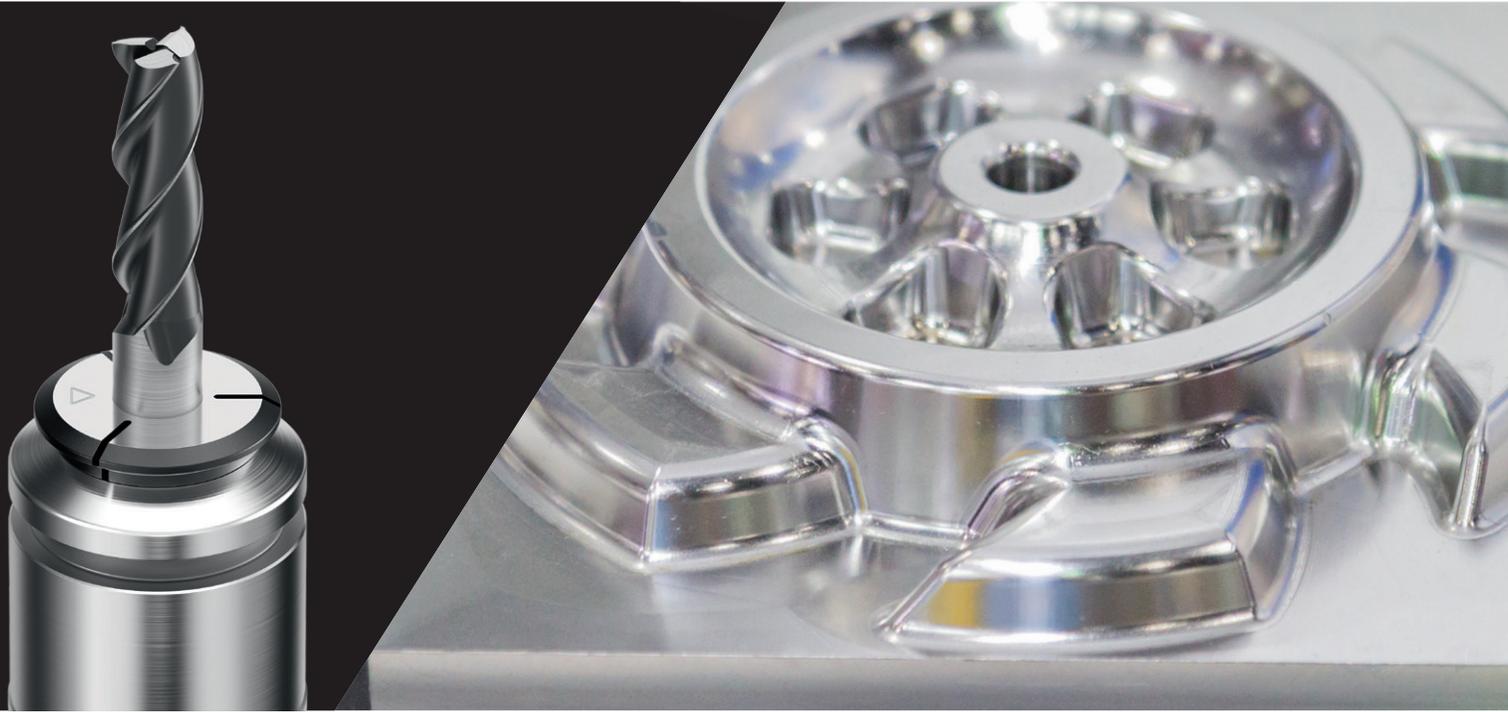
Performance Toolholder-to-collet and collet-to-tool shank interfaces deliver superior clamping force, high-vibration dampening and extreme precision.



Tool ready for use in less than 10 seconds.



Total system runout TIR $\leq 3\ \mu\text{m}$ at $3 \times D$.



Strength Industry's highest clamping torque rating of 1,100 Nm.

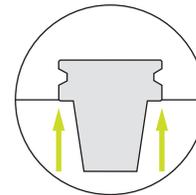
Reliability Accuracy and gripping forces that continue to meet or exceed original values even after extensive cycling.

Versatility Accommodates all types of tool shanks and materials in h6 tolerance and sizes from Ø 0.0079" – 1.0" (0.2 – 25.4 mm) with the same system to reduce tooling inventory.
*(REGO-PLUS licensed BIG PLUS® dual-contact holders also available.)

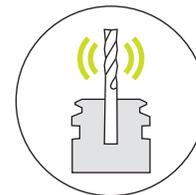
Safety Complete user safety without risk of injury from heat or pinch zones.

Warranty REGO-FIX guarantees the TIR of a properly maintained powRgrip holder and collet will not exceed 0.0001" and the impregnated surface treatment will not erode for five years or 20,000 cycles.

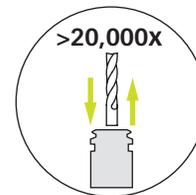
Key advantages



Higher toolholder stiffness due to taper (AT1) and face contact with REGO-PLUS holders.*



Excellent vibration dampening.



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

* THE BIG PLUS SYSTEM – licensed by BIG Daishowa – is manufactured at REGO-FIX in Switzerland under license according to BIG PLUS specifications.

How powRgrip works

powRgrip is a unique collet-holding system that consists of three main components – press fit assembly mounting units, collets and holders – all of which works in harmony. The result is the distinctive powRgrip toolholder-to-collet/collet-to-tool shank interfaces that give the system its extraordinary performance and holding capabilities.

Press-fit assembly mounting units Tabletop mounting units – either hydraulic manual pump style or automated – quickly press powRgrip collets into or remove them from system toolholders with up to nine tons of force.

Collets powRgrip collets feature high-precision tapers and a unique wear-resistant surface treatment that results in an extremely hard surface for unmatched longevity and repeatability.

Holders With equally precise tapers that match those of the collets, powRgrip factory-balanced toolholders deliver superior runout and vibration dampening as well as provide either coolant-through or peripheral cooling capabilities.



Cutting tool



powRgrip® collet



powRgrip® toolholder



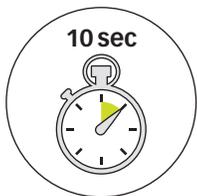
Automatic clamping unit PGU



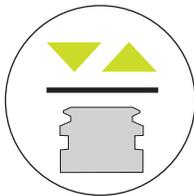
Manual clamping unit PGC



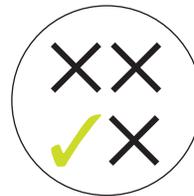
Key advantages



Clamp the tool safely and securely by pushing just one button. The clamping will take less than 10 seconds, without the use of heat.



Clamp tools with maximum clamping force and best runout in the powRgrip collet and toolholder.



Smart System – no setting of parameters required. Clamping pressure is controlled by the insertion of the respective clamping insert (APG). There are five clamping inserts available for the clamping of different collet sizes.

powRgrip for mold & die

The powRgrip product line offers special ancillary technologies and accessories as well as specific sizes that will help you meet the specific demands of mold & die machining operations.

REGO-FIX Xtended length toolholder with MFD technology

Xtended Length powRgrip toolholders come in lengths up to 14" and in nose versions of PG 10, PG 15 and PG 25 for machining applications that require longer reach or present clearance challenges.

The Xtended Length holders feature REGO-FIX's MICRO-FRICTION DAMPENING® (MFD) technology that allows the holders to dissipate vibrations faster than standard long reach holders. Dampening the vibrations faster means that the cutting tool, part and spindle will experience fewer vibrations, resulting in better surface finishes, longer tool life and reduced spindle wear.

powRgrip 6 (PG6), 10 (PG10) and 15 (PG15) holders

Slim-nose PG6 toolholders provide exceptional access when drilling or milling tight, difficult-to-reach features in small complex parts. As the smallest powRgrip toolholder, the PG6 features a minimal outside diameter of 0.4" (10.160 mm) and a clamping diameter from 0.008" to 0.125" (0.203 mm to 4.0 mm) for less tool interference and to effortlessly maneuver tiny cutters and drills into tight part cavities. Other small holders ideal for mold & die creation include the PG10 and PG15.

Balance rings Type H toolholders are ready to accept Hi-Q® balancing rings which allow precision balancing of the system up to 80,000 rpm depending on the balancing rings used.

Standard collet and coolant flush Standard PG collets can be used with either non-coolant or coolant-through tools. Each collet is mechanically sealed by the slot design for internal through-the-tool coolant, handling up to 2000 psi of high pressure coolant. Coolant flush collets direct the coolant along the outside of an end mill cutting tool shank, resulting in a high-pressure peripheral "sleeve" of coolant flowing around the shank and to the cutting edges of the endmill.



GMN

HCS 230

363789





[powRgrip solutions](#)

Sizes and specifications for mold & die

powRgrip is available in a wide selection of holder types, lengths and diameters, including those larger toolholder-spindle interface tapers and styles typically required for mold & die applications.

powRgrip toolholders

Sizes and styles include:

CAT 40 and 50
 CAT+ 40 and 50
 TC 30, 40 and 50
 BT 30, 40 and 50
 BT+ 30, 40 and 50*
 HSK 63, 80, 100 and 125
 HSK 80FP
 HD Rigid taper design
 CAPTO C3, C4, C5, C6 and C8**

REGO-FIX Q System PG toolholders are balanced by design to G2.5 @ 22,000 rpm for steep taper holders and up to 90,000 rpm for HSK holders. Type H toolholders are ready to accept the Hi-Q balancing system rings which allow precision balancing of the system up to 80,000 rpm, depending on the balancing rings used.

powRgrip collets

We offer a wide range of powRgrip collet sizes – standard, small and microbore – to meet the varied needs of mold & die manufacturers, and all collets are precisely engineered to exact tolerances. Regardless of size or type, the collets clamp all h6 tool shanks – Cylindrical, Weldon and Whistle-Notch – in all shank materials, including Solid Carbide and High-speed Steel (HSS).

Popular sizes are:

PG 6
 PG 6–MB (Microbore)
 PG 10
 PG 10–MB (Microbore)
 PG 15
 PG 25
 PG 32

PG collets are available in Standard Collet Metallic Sealed or Coolant Flush versions.

* THE BIG PLUS SYSTEM – licensed by BIG Daishowa – is manufactured at REGO-FIX in Switzerland under license according to BIG PLUS specifications.

** REGO-FIX CAPTO – licensed by Sandvik Coromant – is manufactured at REGO-FIX in Switzerland under license according to CAPTO specifications.



Accessories

Enhance your tool life with the correct accessories for safe tool clamping.

Presetting tool The powRgrip presetting tool accepts the powRgrip collets and is inserted into the toolholder. The tool has a small thumb wheel for precise tool length adjustments and allows maximum repeatability in the toolholder assembly.

Toolholder taper cleaner Special taper cleaner brush quickly and easily removes dirt and light rust from powRgrip holder bores before insertion of a tool/collet.

Cleaning paper set Soft, absorbent paper specifically prepared to clean the powRgrip holder bore. The paper is lint free, chemically neutral and for one time use only. It is packaged in containers of 250 sheets.

Ultrasonic cleaner This cleaning system ensures proper cleaning of small powRgrip collets and holders, especially those used in micro machining medical and dental applications. The system's heavy-duty, double-wall steel design provides high efficiency cleaning and its multi-frequency operating system ensures optimum cleaning conditions for most tool system components.



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