



**powRgrip® for the 3C industries**  
Computers, communications and  
consumer electronics

**REGO-FIX** 

REGO-FIX

Providing solutions for cutting-edge toolholding

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## Introduction

# powRgrip keeps pace with dynamic 3C manufacturing

Extremely fast and flexible toolholding solution.

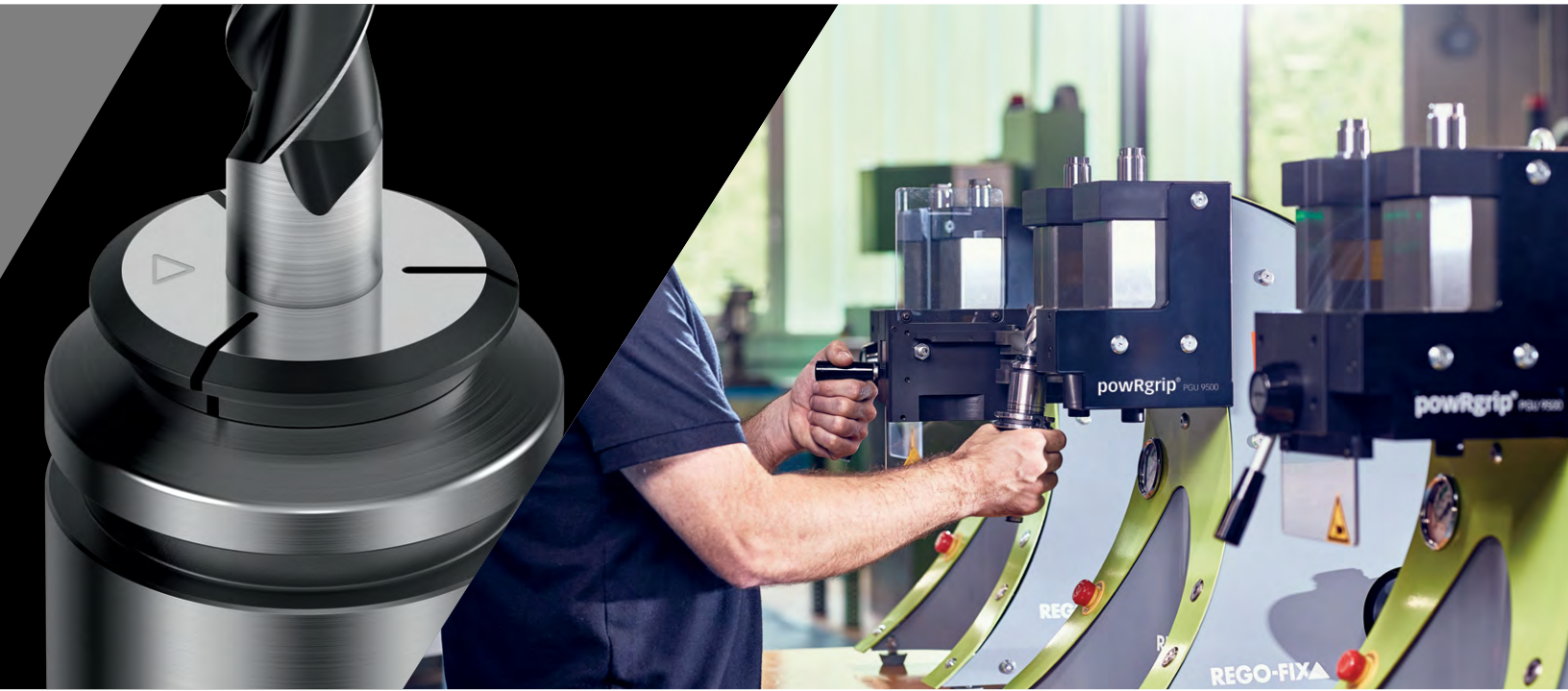
**Machining challenges** Few industries are as fast paced as the computers, communications and consumer electronics (3C) sector. And because your shop manufactures 3C components, you too must be fast and flexible to contend with constantly changing product designs that then require completely new and different machined components. Yours is a world of extremely high-speed machining with small, expensive solid carbide, high-speed steel and ceramic cutting tools used to process components often made from aluminum, ceramics (both hardened and green) and glass.

**Absolute precision** Only the REGO-FIX powRgrip (PG) toolholding system allows you to quickly switch from one tool type to the next, as well as from one part material to another, and do so with the same high-precision toolholders. The PG system will take your toolholding precision and flexibility beyond that of conventional holders to save you time and money.



### **Swiss quality standard**

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



Features and benefits

# powRgrip toolholding 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 part machining needs.

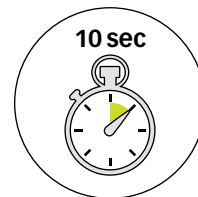
**powRgrip gives you confidence and peace of mind in knowing that you run the most advanced toolholders ever made. Here is what makes powRgrip the best.**

**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.

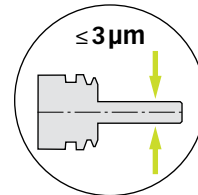
**Precision** Precisely engineered and balanced by design, powRgrip delivers TIR of  $<0.0001''$  ( $3\ \mu\text{m}$ ), along with precise length adjustment repeatability of  $<0.0004''$  ( $10\ \mu\text{m}$ ).

**Versatility** Accommodate all types of tool shanks and materials in h6 tolerance and sizes from  $\text{Ø } 0.0079''$ – $1.0''$  ( $0.2$ – $25.4\ \text{mm}$ ) with the same system to reduce tooling inventory. (REGO-PLUS licensed BIG-PLUS®\* dual-contact holders and REGO-FIX CAPTO\*\* holders also available.)

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



Tool ready for use in less than 10 seconds.



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



**Safety** Complete user safety without risk of injury from heat or pinch zones or toxic fumes emitted from heat shrink units.

**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.

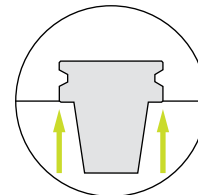
**Strength** Industry's highest clamping torque rating of 1,100 Nm.

**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.

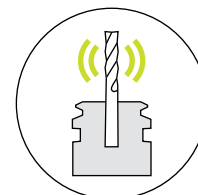
\*The BIG-PLUS Spindle System—licensed by BIG Daishowa—is manufactured at REGO-FIX in Switzerland under license according to BIG-PLUS specifications.

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

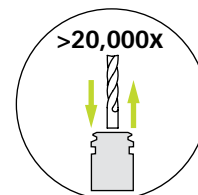
**Key advantages**



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.

# 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 work 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. Moreover, powRgrip is a system that grows with your high-precision toolholding needs. Start with our manual pump style unit then seamlessly progress to the fully automatic assembly and presetter unit.

**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.

**Press-fit automatic preset units** A fully automatic assembly and presetter unit is also an available option through the joint partnership with ZOLLER. Called the »venturion 600«, this powerful unit combines tool clamping and setting in a single system to guarantee maximum parts quality and economic efficiency in your manufacturing process.

**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



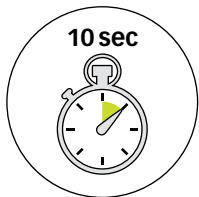
Automatic clamping unit PGU



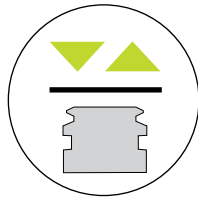
Manual clamping unit PGC



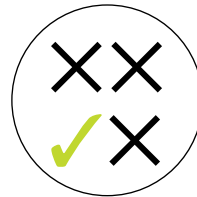
**Key advantages**



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 the 3C industries

Tackle any machining challenge.

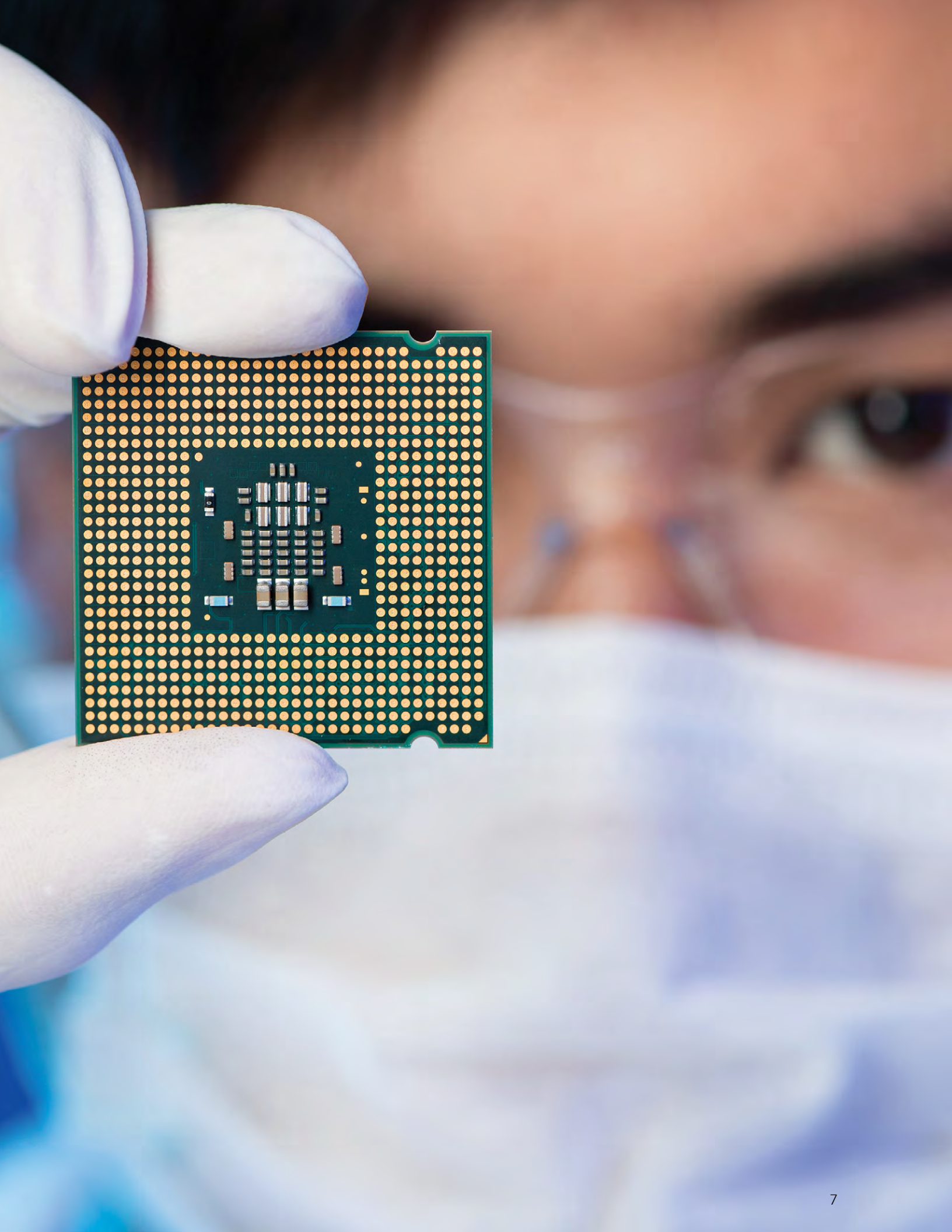
**Remarkable versatility** Regardless of the computer, communication or consumer electronics components you produce, the powRgrip product line offers special ancillary technologies and accessories as well as specific sizes that will further enhance your part machining operations.

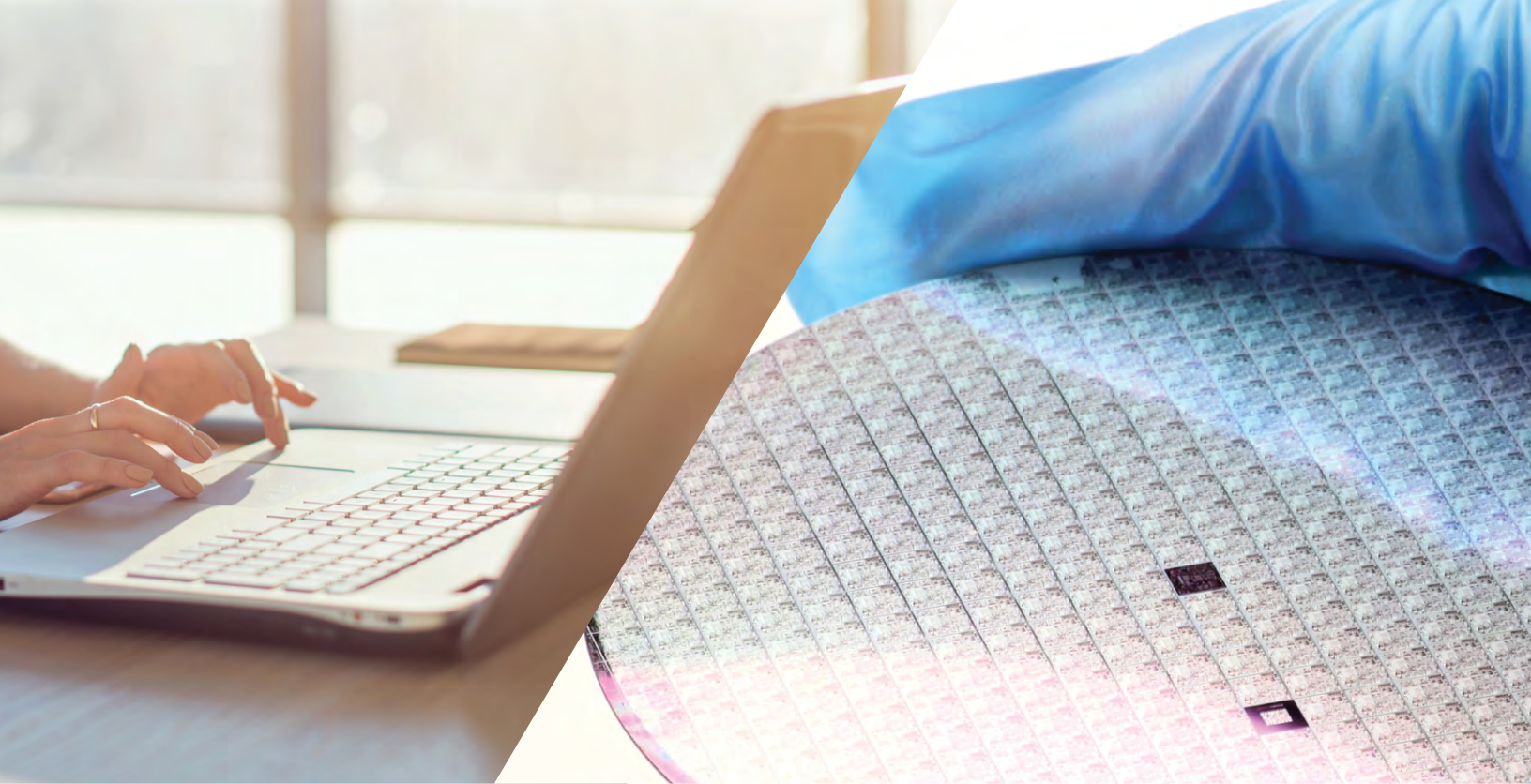
**powRgrip 6 (PG 6)** Slim-nose PG 6 toolholders provide exceptional access when drilling or milling tight, difficult-to-reach features in small complex parts. As the smallest powRgrip toolholder, the PG 6 features a minimal outside diameter of 0.4" (10 mm) and a clamping diameter from 0.0079" to 0.125" (0.2 to 3.175 mm) for less tool interference and to effortlessly maneuver tiny cutters and drills into tight part cavities.

**powRgrip 10, 15 and 25** For materials such as aluminum, ceramics (both hardened and green) and glass frequently used to manufacture the wide variety of components in the 3C industries, PG 10, 15 and 25 provide excellent surface finish and superior TIR for enhanced tool life.









[powRgrip solutions](#)

## Sizes and specifications for manufacturing in the 3C industries

REGO-FIX offers the industry's widest variety of collet and holder types, lengths and diameters. For computer, communication and consumer electronics part machining, that selection includes smaller diameter and high-speed holder types as well as the means to hold cutting tools as small as 0.0079" (0.2 mm) in diameter.

### powRgrip toolholders

**Sizes and styles include:**

HSK 25, HSK 32, HSK 40, HSK 50, HSK 63  
BT+ 30 and 40\*  
CAPTO C3, C4, C5 and C6\*\*  
CAT 40, 40+\*

REGO-FIX Q System PG toolholders are balanced by design to G2.5 @ 25,000 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

powRgrip collets are precisely engineered to exact tolerances and accommodate a wide range of tool diameters ranging from 0.2 mm to 25 mm (0.0625" to 0.75"). 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 15  
PG 10 PG 25

PG collets are available in Standard, Coolant Flush and secuRgrip versions.

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## 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 wiper 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 system provides high-efficiency cleaning with a double-walled design made from heavy-duty steel. The multi-frequency operating system ensures optimal cleaning conditions for most tool system components.

### ER collet and micRun System options

For more traditional toolholding requirements, REGO-FIX offers two other system options.

**ER collet system** REGO-FIX ER collets are available in both standard and ultra precision (UP) quality levels, and when combined with REGO-FIX ER toolholders and ER clamping nuts, provide a high-accuracy system. ER collet options include the smallest ER series from ER 8, ER 11 and ER 16 for micro-drilling and micro-milling applications, to the larger ER 20, ER 25, ER 32 and ER 40 series for more heavy-duty machining.

**micRun high-precision collet system** The REGO-FIX micRun System features special high-quality ER style collets, or MR collets, and unique matching micRun toolholders that offer the best TIR (under 3 microns at 3xD) combined with the highest clamping force of any ER type collet system offered. The micRun System is a great alternative for demanding machining applications, ranging from micro-machining applications (MR 11 and MR 16) to heavier milling, drilling, tapping and reaming needs (MR 25 and MR 32). It is especially designed for high-precision, high-speed and low-vibration operations.



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