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YG-1 PRODUCTS!!
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FIREARM INDUSTRY

TOOL SOLUTIONS FOR INDUSTRIES





YG-1 AND THE FIREARM INDUSTRY

Since its existence, the firearms industry has always been dependent upon two critical characteristics: precision and reliability. While producing reliable, precise firearms is challenging enough, today's firearms manufacturers continue to strive for ease of use and the look and feel of a high-quality product. As such, many firearms through the ages have rightfully earned the honor to be called engineering masterpieces.

YG-1 offers a vast selection of tools to meet the firearms industry's challenges. YG-1's tools, just like the products they help to create, are both precise and reliable. And just as the firearms industry insists on ease of use, YG-1 makes sure that doing business is user-friendly with global supply, customized products, and support with a team of industry experts.

MAKE YOUR ENGINEERING MASTERPIECE TODAY WITH YG-1!

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GENERAL BREAKDOWN

Typical Modern Semi-Auto Pistol



SLIDE *Pages 6-9*

BARREL *Page 10*

TRIGGER *Page 11*

**PISTOL FRAME
(DIE & MOLD)** *Page 12*

YG MILL



YG602
Universal grade for General Milling Application

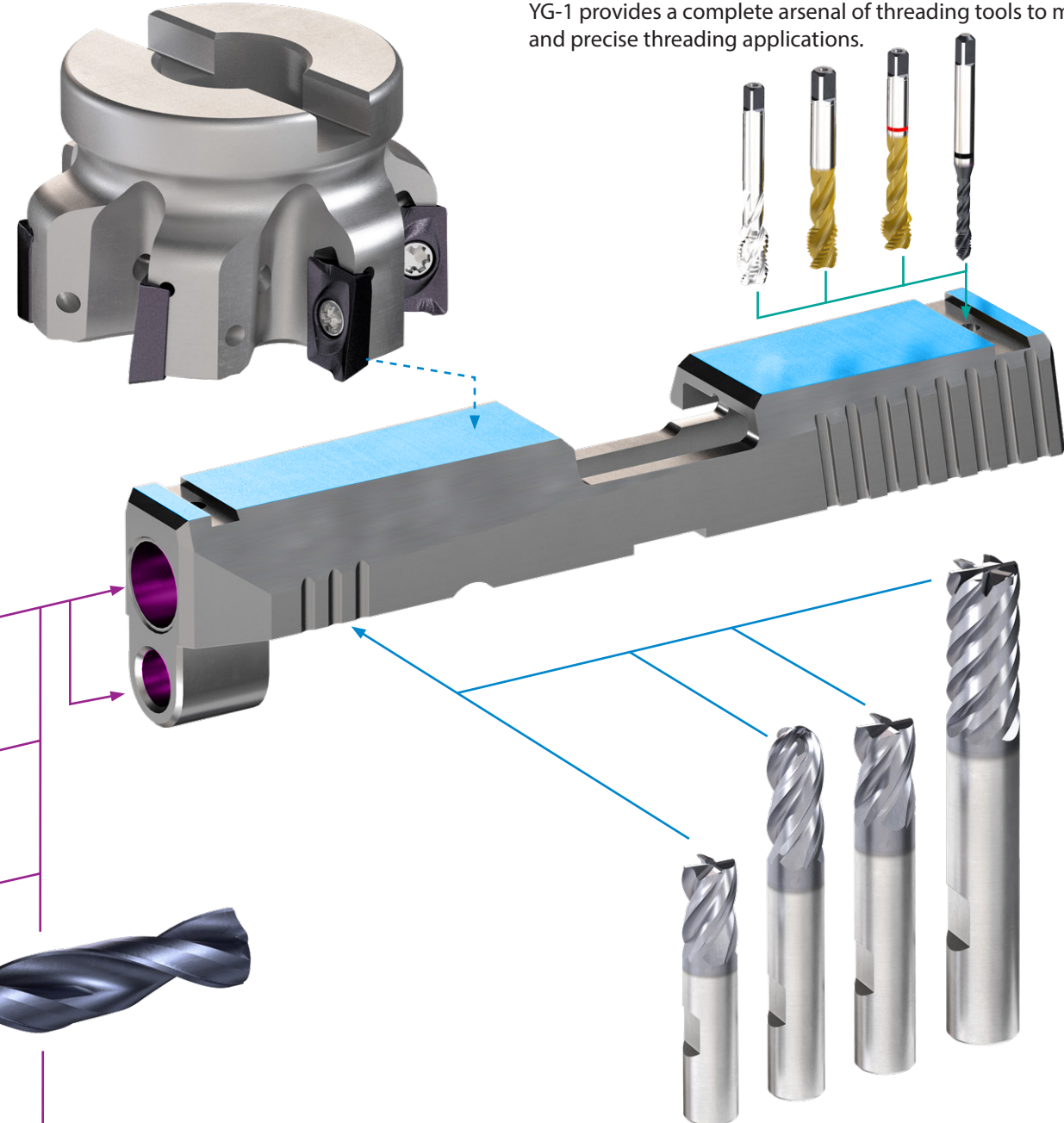
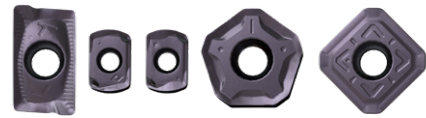
- Ultra Dense PVD Coating with optimal thermal resistance and strength
- Sub-Micron substrate designed for demanding application

PVD - TiAlN

P20 - P35 M20 - M40 K20 - K40 S15 - S25

Facing

For high-productive milling applications, YG-1 offers a wide range for indexable tools. Experience market-changing solutions such as our new **YG HF4 MILL** high feed mill with unprecedented metal removal rate and predictability or the new **YG FM10** face mill with the ability to rough and to finish with the same tool. YG-1 offers a wide selection of milling grades and geometries, covering all materials in the firearms industry

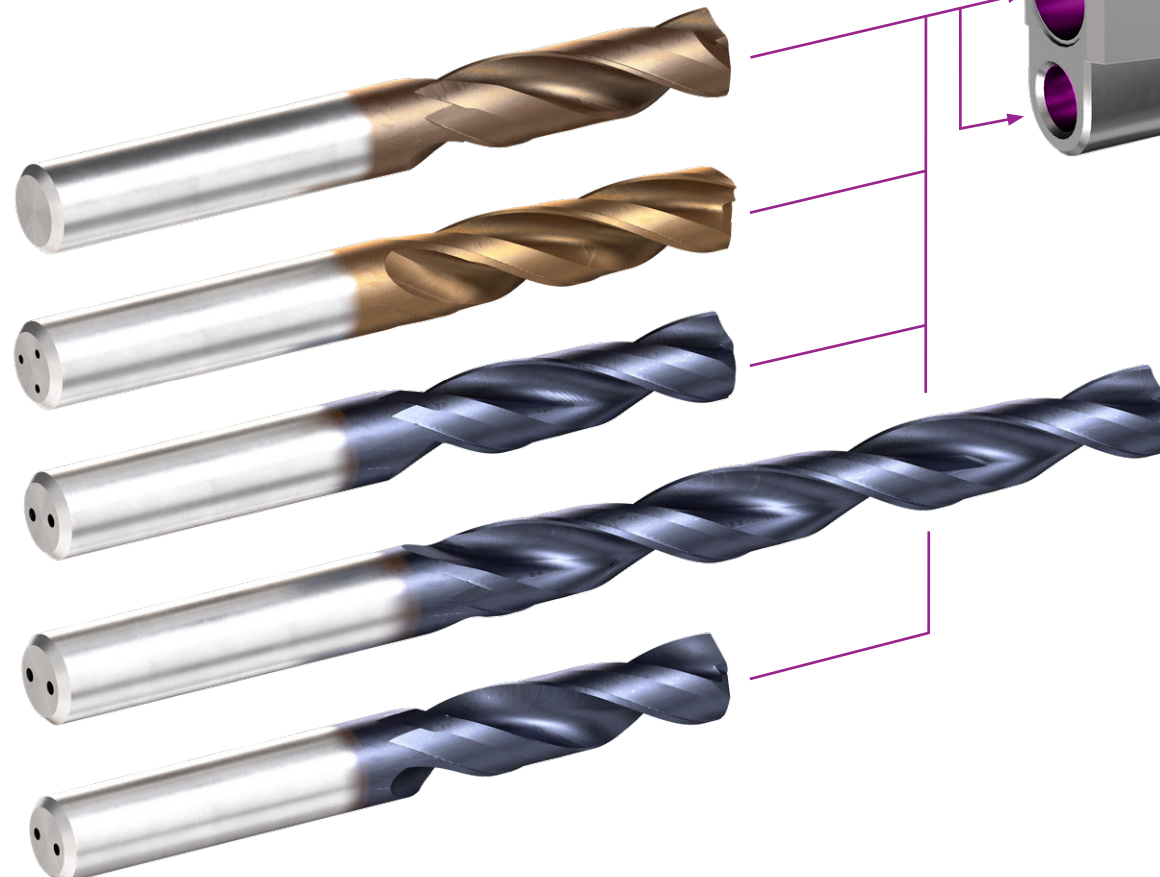


Precision Threading

Many firearms are designed with ease of maintenance as a top priority. This means the ability to field strip without the use of hand tools. But, for those components requiring precision alignment, such as sights, the use of screws is often unavoidable. YG-1 provides a complete arsenal of threading tools to meet the most demanding and precise threading applications.

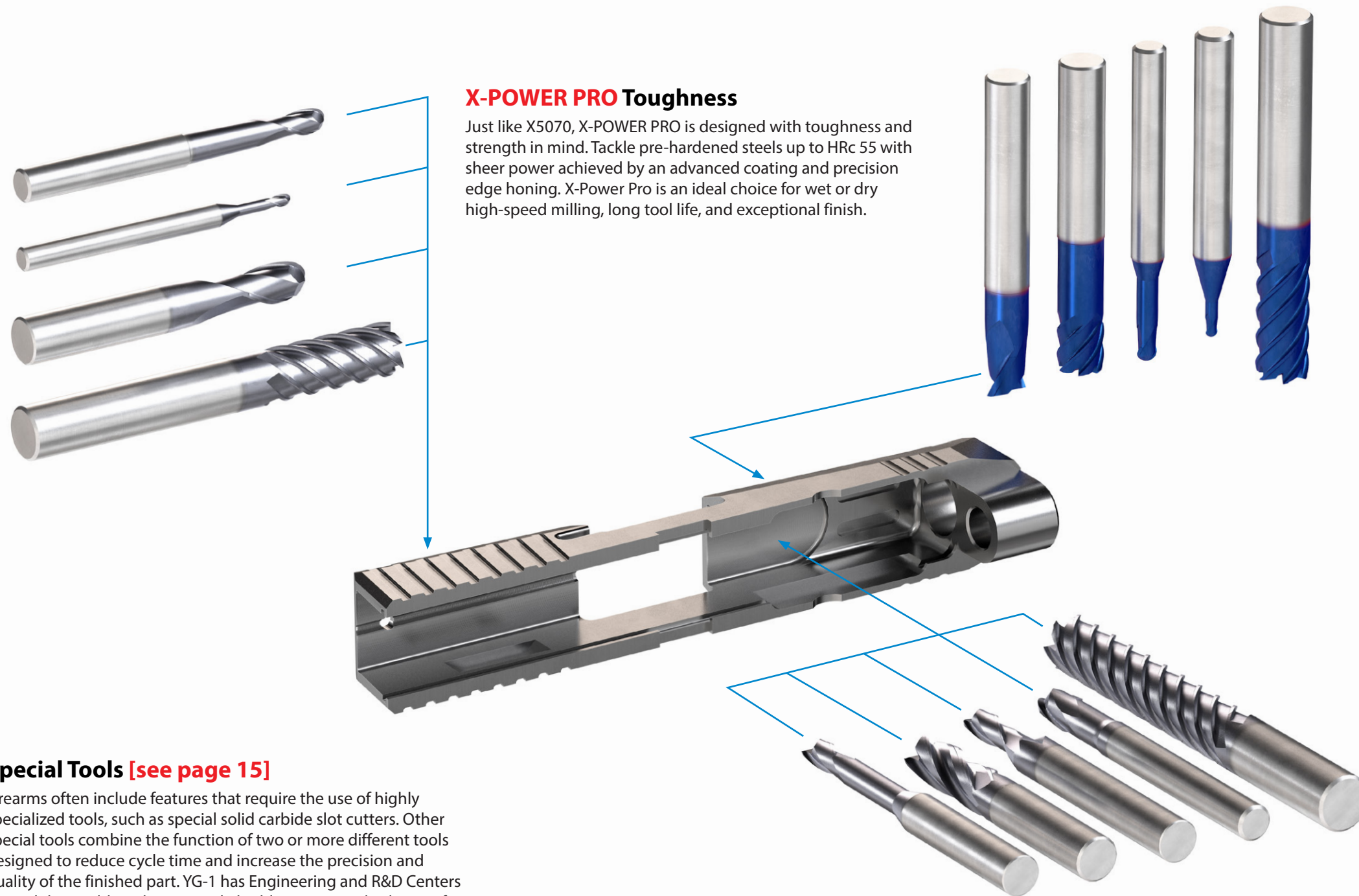
Drilling

YG-1 has an excellent selection of drills for tough applications requiring the utmost precision. Select from our line of **DREAM DRILLS** to cover a vast array of applications and materials, while our **DREAM DRILLS HIGH FEED** provides additional precision and performance. Try the newest **DREAM DRILLS PRO** - our advanced drill line for a winning combination of high-performance and long tool life.



Side Milling and Slotting

YG-1's end mills are known worldwide for their performance, reliability, and quality. YG-1 offers several premier end mill lines including **V7 PLUS A**. Handle steel and stainless steel applications with ease and even difficult to machine materials such as titanium. For excellent performance in heavy cutting applications, there is no match for YG-1.



X-POWER PRO Toughness

Just like X5070, X-POWER PRO is designed with toughness and strength in mind. Tackle pre-hardened steels up to HRc 55 with sheer power achieved by an advanced coating and precision edge honing. X-Power Pro is an ideal choice for wet or dry high-speed milling, long tool life, and exceptional finish.

X5070



Precision with X5070

Our Blue-coated X5070 end mills have an outstanding reputation worldwide! With a wide range of geometries and sizes, X5070 is ready to tackle any demanding task that requires precision and strength. X5070 is designed to mill high-hardened steel (HRc 50-70) making it an ideal choice for precision milling in hard materials.

Special Tools [see page 15]

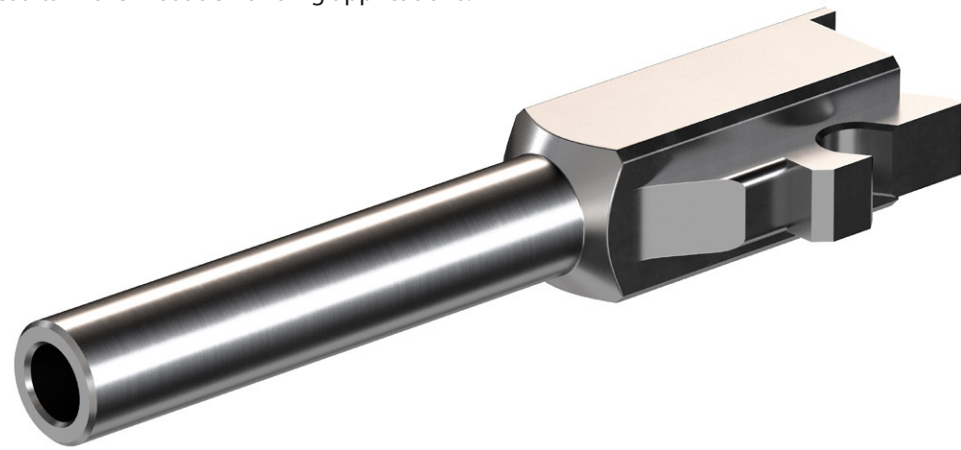
Firearms often include features that require the use of highly specialized tools, such as special solid carbide slot cutters. Other special tools combine the function of two or more different tools designed to reduce cycle time and increase the precision and quality of the finished part. YG-1 has Engineering and R&D Centers around the world ready to provide highly customized solutions for any special need firearms manufacturers have.

High Speed with 4G MILL

One of YG-1's staple products, 4G MILL, is a universal workhorse that handles just about anything you can throw at it! 4G MILL features a special tool geometry designed for high feed rates and heavy cutting. A special end tooth design makes 4G MILL a top choice for pocketing and plunging while offering excellent performance with high-speed milling as well. Keep our 4G MILL range of tools, with various MADE IN USA configurations, on hand as the primary tool of choice.

Turning Tools

Gun barrels, like no other part in a firearm, require the utmost care and precision while machining to achieve the level of demanding performance expected from it. YG-1 is up to the challenge with an extensive selection of indexable turning tools including a complete range of ISO shapes and chipbreaker geometries as well as CVD and PVD coated turning grades that are sure to guarantee the most accurate results in the most demanding applications.



TRIGGER

Machining Miniature Parts

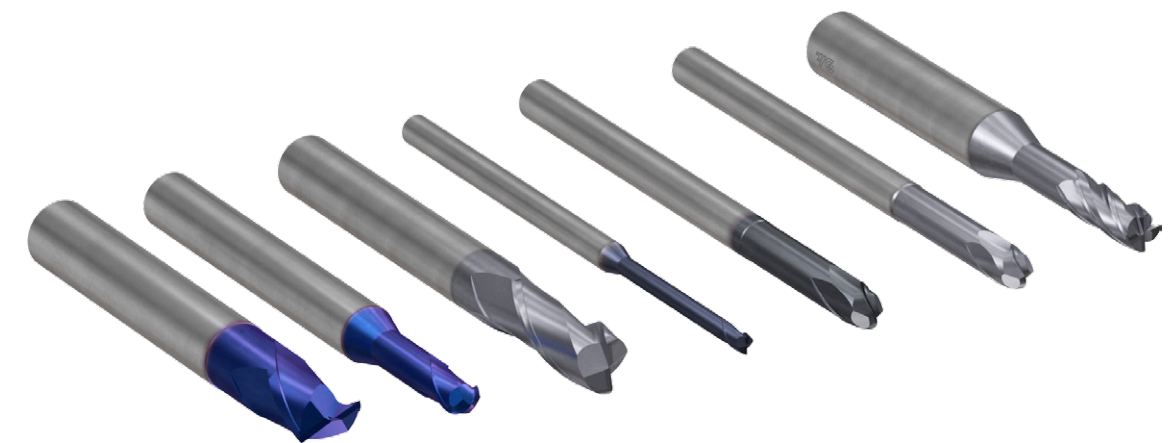
Machining small parts requires the right tool for the job with highly engineered geometries and exact precision while providing exceptional strength and durability. YG-1 has a number of milling solutions, including **X5070**, **X-POWER PRO**, **K-2 PLUS**, and **4G MILLS**, for small part machining. These powerful milling platforms combine to target the broad spectrum of materials and applications found across the firearms industry.



YG TURN

Optimized ISO turning grades to boost up your productivity from Interrupted Cut to Continuous Cut

P Steel	↑ Hard ↓ Tough		YG3010	First choice for Finishing Steel
			YG3015	Balanced Productivity for Continuous cut
			YG3020	First Choice Grade for General Steel Application
			YG3030	Interrupted Cutting of Steel
M Stainless Steel	↑ Hard ↓ Tough		YG211	High wear resistance Grade for Stainless steel
			YG3030	CVD Grade for Interrupted Cutting of Stainless steel
			YG213	First Choice Grade on Low Cutting Speed of Stainless steel
			YG214	Heavy Interrupted cut for Stainless steel
S Super Alloy			YG401	PVD Turning Grade for Heat-resistant Super alloy



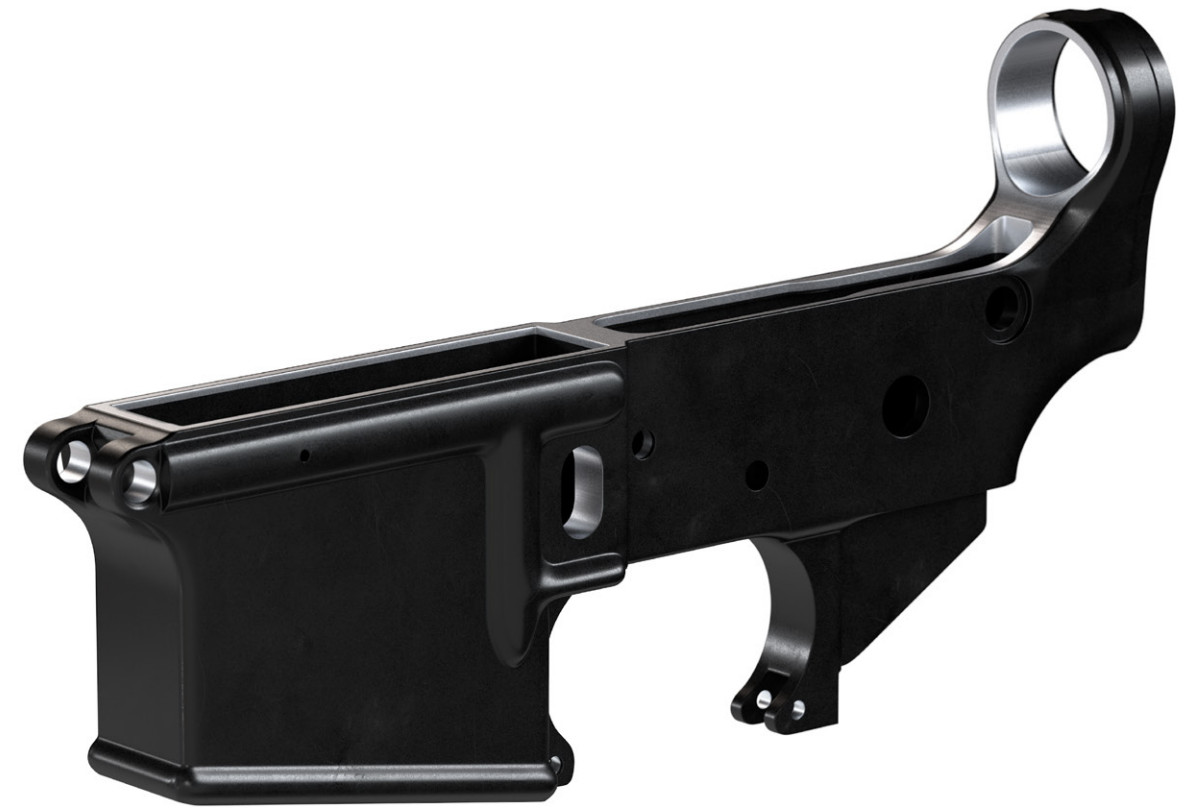
Many modern firearms take advantage of the advancements made in polymer science with some firearm components now made entirely out of strong, durable plastics. YG-1 offers a complete catalog dedicated to comprehensive solutions for the field of Die & Mold machining. Browse our complete selection of tools to manufacture the most precise Die & Mold sets used for the production of plastic parts.

[Click this link to proceed to our Die & Mold Brochure](#)



ALUMINUM PARTS

Aluminum
Aluminum Alloys **N**



In combat - every ounce counts! To control weight, non-moving parts of a firearm, such as the AR-15 style lower receiver (pictured above), are often made with aluminum or aluminum alloys. YG-1 has the best solutions for addressing gummy aluminum applications with **ALU-POWER** and **ALU-POWER HPC** end mills. For drilling aluminum and aluminum alloys, YG-1 offers the **DREAM DRILLS ALU** line of highperformance carbide drills.

Special Purpose Tools

As mentioned on page 8 of this brochure, firearms often require the use of custom-designed specialized machining tools in their manufacturing. YG-1's extensive network of Engineering and R&D centers around the world is always ready to work with customers, in order to provide the best solutions to their particular needs, including the design and development of highly customized tools for the firearms industry. Examples of such tools are: **Step End Mills, Chamfer Drills, T-Slot Cutters, Step Reamers, and Undercutting Ball End Mills.**



For information and inquiries regarding particular specially made tools, please contact our YG-1 sales representative

BRING US YOUR DESIGN CONCEPTS, YOUR SMALL BATCH RUNS, AND YOUR FULL-BLOWN PRODUCTION NEEDS

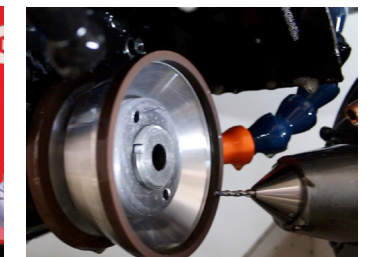
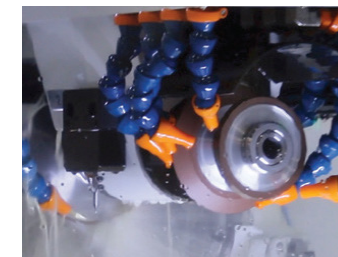


Value Performance Engineering

- Engineered for reliability and consistency in performance
- Complete understanding of demand requirements
- Optimized for the most cost-effective solution
- Best cost-per-part value

Designed to Accommodate Your Needs

- Capabilities for small-batch production
- Ready access to world-class engineering
- Complete re-sharpening services
- Fast turnaround for one-of-a-kind tools and solutions



COLLABORATION IS KEY

From your first design concepts to prototyping to final tooling, YG-1 will work with you at every turn. It's this partnership that keeps our customers on the cutting edge with the most cost-effective tooling solutions in the industry. For group training, collaboration with our designers and engineers, the Tech Center features an expansive training room with a live demonstration area.

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Note The information is provided for reference only. Tool specifications are subject to change without prior notice. Although we endeavor to supply accurate and timely information, there can be no guarantee to cover every particular application. YG-1 or publishers are not liable for any damage for use of the information.

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