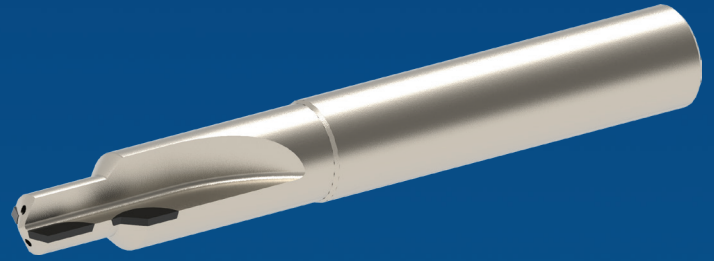




ADVANCED CUTTING MATERIALS

Standard & Custom Tooling Solutions

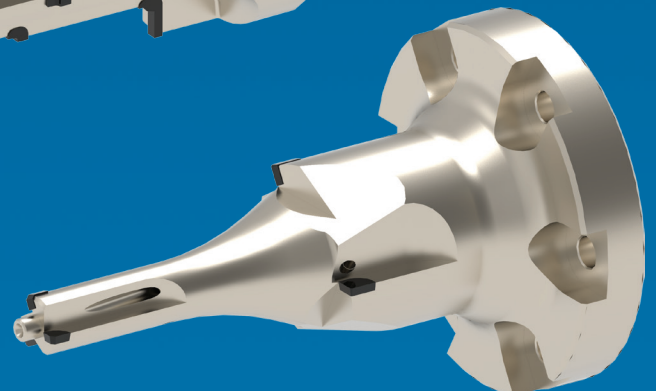
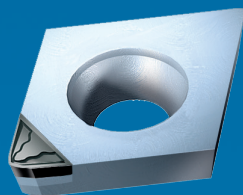
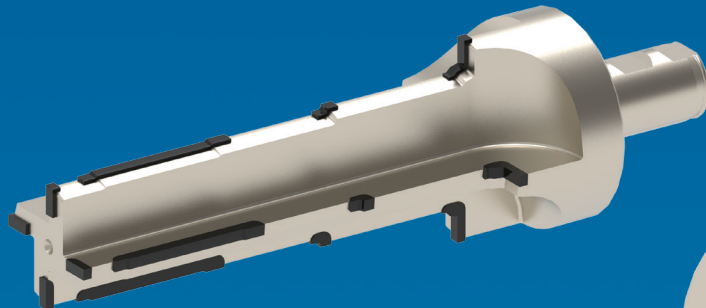
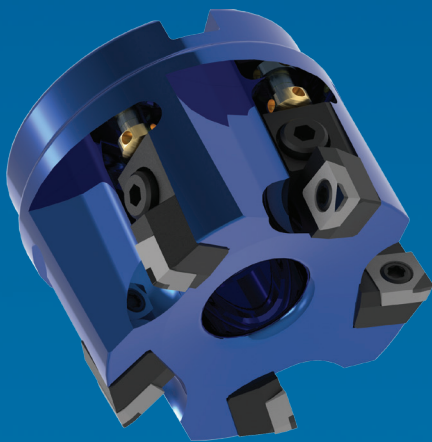
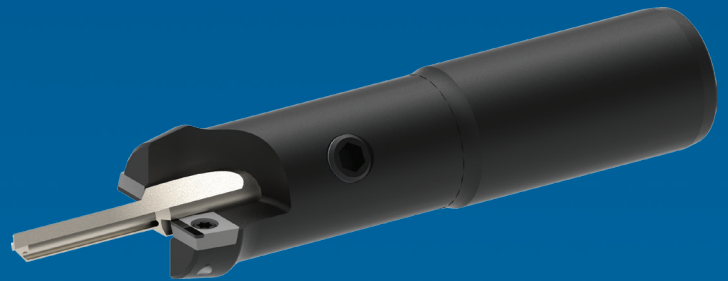


TFC/CVD/PCD/CBN/DLC

- A solution provider to leading manufacturers in the advanced fields of Aerospace, Automotive, Medical, Mold & Die, Power Generation and General Engineering
- Your trusted partner for tooling to manufacture difficult to machine materials, with a proven record - drawing on decades of application experience
- The project engineer specialists who maximizes part production while minimizing overall tooling costs, to meet the demands and deadlines of modern manufacturers

A Complete offering of Standard, ISO and Custom Tooling

- Milling
- Turning
- Drilling
- Threading
- Fine Boring
- Countersinking
- Reaming
- Multi-Operation & High Volume Tooling



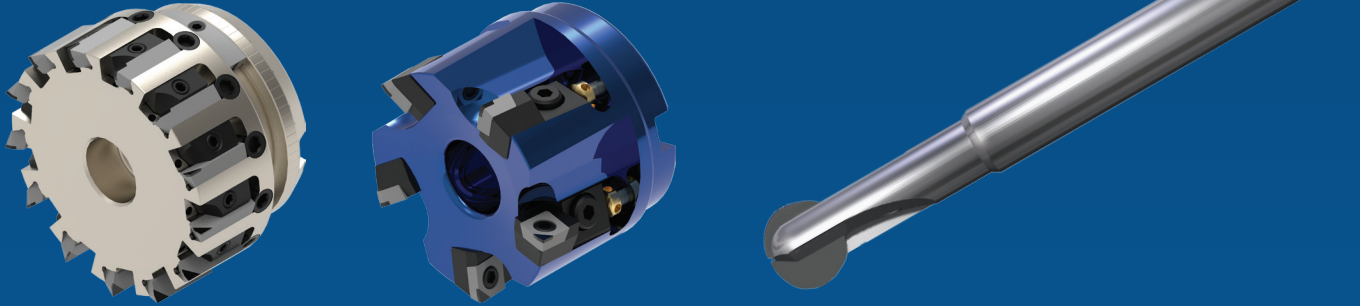
Standard Product Range

Metric and Inch Milling Cutters

- TCP90 aluminum bodied micro adjustable milling cutters (from $\varnothing 2.000$ to $\varnothing 8.000$)
- CDC90HS steel bodied micro adjustable with fine flutes (from $\varnothing 1.000$ to $\varnothing 4.000$)

ISO Turning and Milling Inserts

- Stock standards in TFC, PCD, CBN including chipbreaker



Ultra Hard Cutting Materials

TFC - Thick Film CVD Diamond

- The hardest and sharpest grown diamond solution with no binders or inconsistencies

PDC - Polycrystalline Diamond

- Carbide reinforced diamond available in fine or coarse grit sizes

CBN - Cubic Boron Nitride

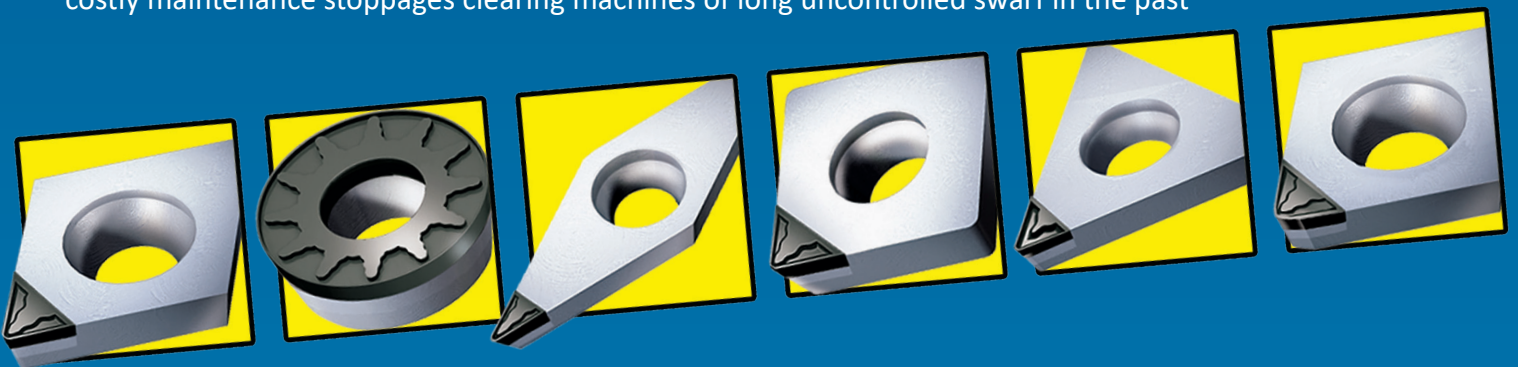
- Cost effective option and available in 4 grades from very high CBN content to low CBN content

DLC - Diamond Like Coating

- Versatile coating with a low friction coefficient and excellent adhesion to cutting tools
- 3D Chipbreaking technology for the machining of non-ferrous materials

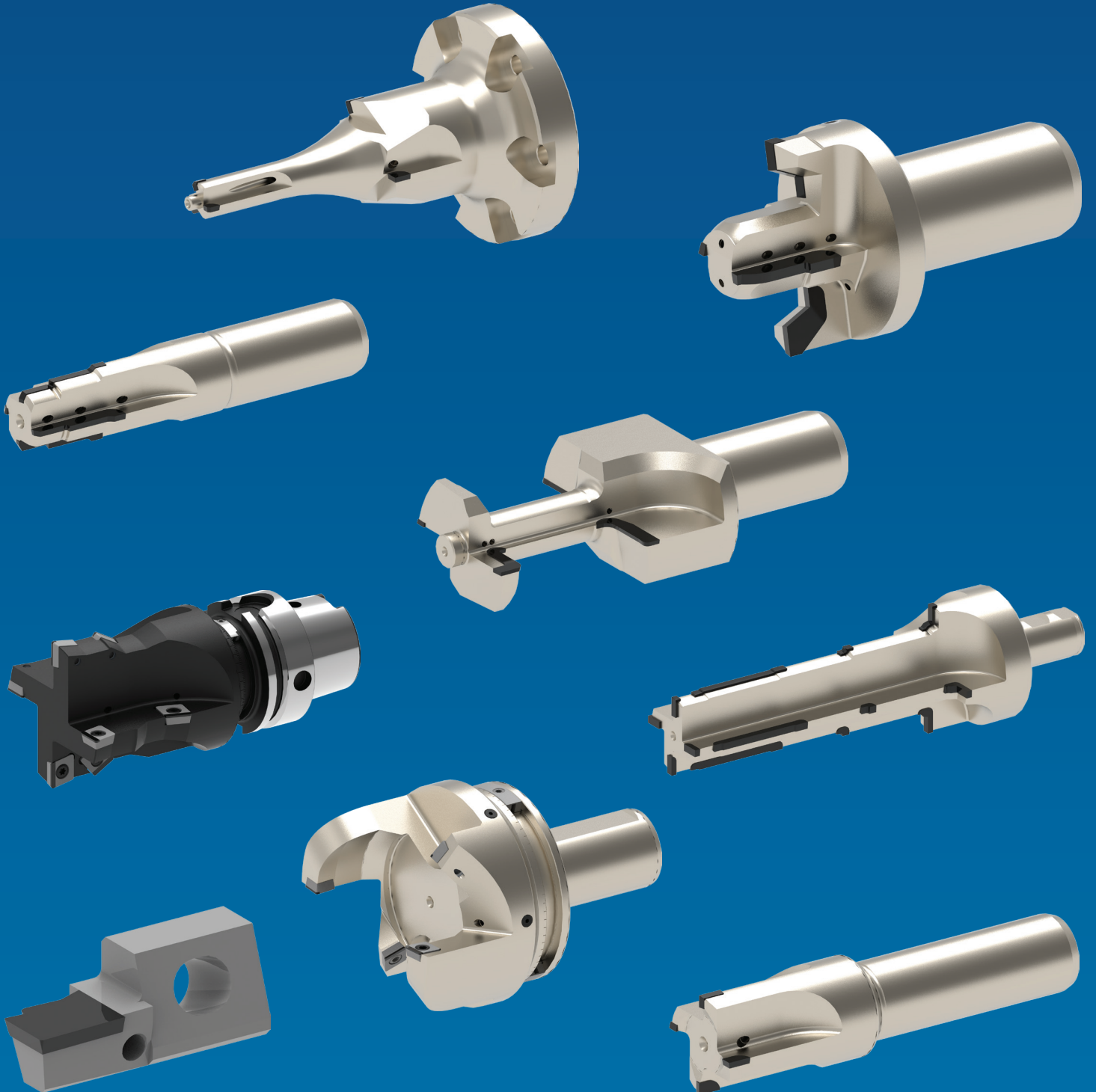
Chipbreaker

- Standard inserts and custom solutions
- Chipbreaker forms produced at the cutting point of the TFC/PCD segment - available in roughing and finishing forms, with unsurpassed chip control and dramatically increased tool life
- The higher shear angles integrated within the chipbreaker produces lower cutting pressures and less heat expansion of the workpiece
- Precise dimensional accuracy, eliminating the need for secondary operations while both increasing productivity and reducing operating costs
- The controlled short chips coming off the workpiece allow for uninterrupted production runs and reducing costly maintenance stoppages clearing machines of long uncontrolled swarf in the past



Custom Solutions

- Integral tooling
- Multiple operation tooling
- Combination tools – indexable, drilling, chamfering
- Endless possibilities for a number of applications and industries



Performance Services

Turn Key Solutions - Complete engineering solutions working from customer supplied drawings and 3D models- tooling the job from start to finish

Balanced by Design - Tools and complete assemblies are engineered to be balanced by design for maximum tool life, work piece finish and extended spindle life

Induction Heat Shrinking - 600V induction shrink and pre-set tools

High Speed Testing - Standard tooling high speed tested and listed with rated maximum RPM

Edge Preparation - Edge preparation (Chipbreakers, hones, T-Lands)

Re-Tipping - Re-Tipping of TFC and PCD segments of complicated and valuable tooling

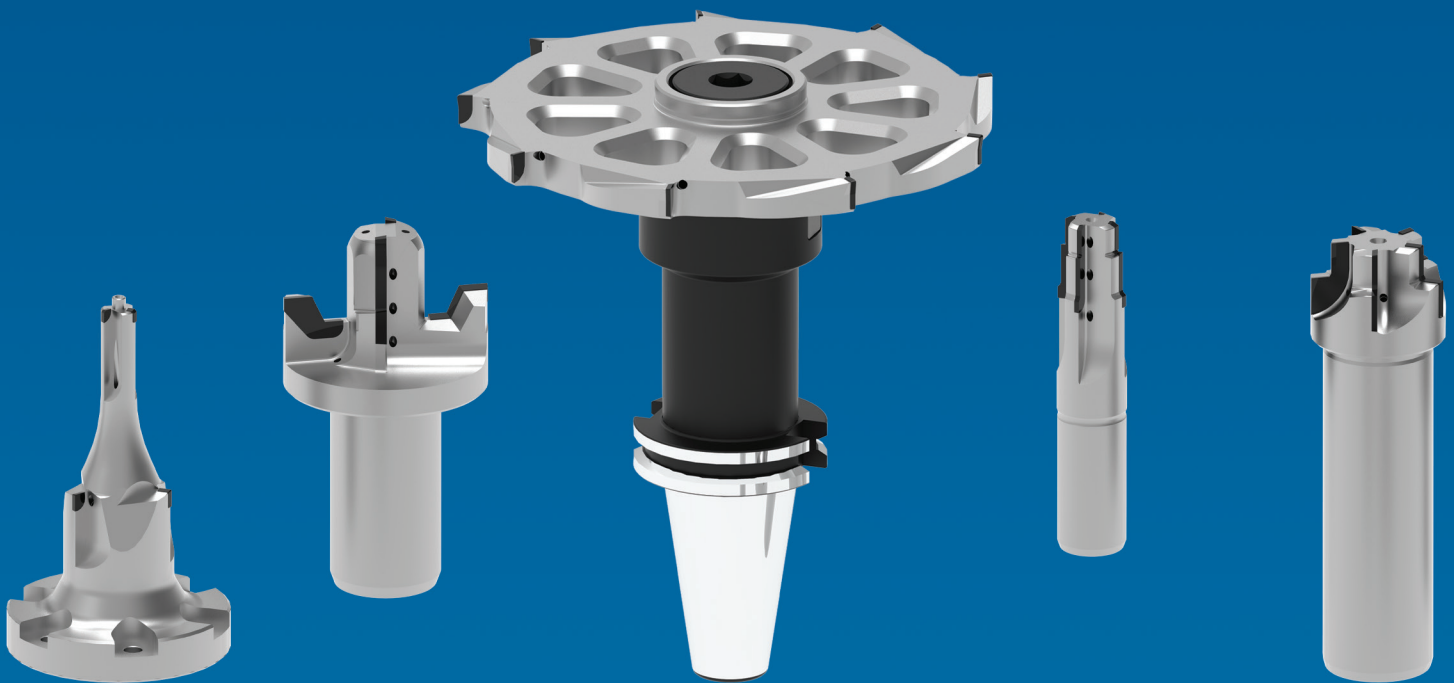
Reconditioning - Restore costly diamond cutting tool to original performance capabilities

Pre-setting - Standard and micro adjustable tools dialed in to size and presented with available printed reports or tooling labels

Tool Balancing - Using proprietary balanceable monobloc toolholder systems or static material removal of existing tooling

Inspection Certification - Available on customer's request with magnified images of cutting edges

Laser Tool Marking - Standard part numbering, logos, to complete assemblies and individual serial numbers



RTC **Rani Tool Corp.**
320 Troy Circle, Unit C, Knoxville, TN 37919

Tel: (865) 337-7799 or (888) 554-RANI • Fax: (865) 337-7716
E-mail: sales@ranitool.com • www.ranitool.com

Available From:

Specifications are subject to change without notice. No responsibility for errors and/or printing errors will be accepted.