

Custom-Made Toolholder Capabilities

Reduce Cycle Time and Increase your Productivity

Toolholder Customization Options for Your Specific Machining Application

- Add Multiple Counterbores, Countersinks, or Chamfer Inserts
- Create Special Shanks or Custom Diameters and Lengths
- Combine Multiple Operations
- Variations on Diameters and Lead Angles
- Full Specials Built to your Specifications



ADVANCING PRODUCTIVITY

Kyocera Cutting Tools Custom-Made Toolholders

0.010 X 45°

0.020 X 45°



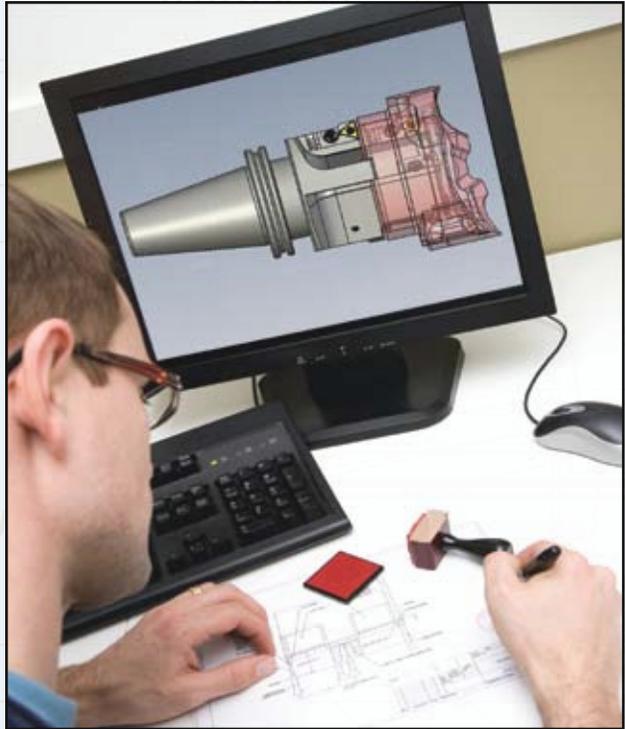
Custom Dovetail Cutter

Watch your *productivity and profits soar* with custom made tooling from Kyocera.



Combination Drill, Counterbore and Countersink

Our design engineers utilize the latest in 3-D solid modeling, CAM, CNC lathes, grinders and 3, 4 and 5 axis CNC machining centers to produce the highest quality special and custom-made tools.



Our custom drilling and milling tools will *reduce your cycle time* and increase your through put by eliminating tool changes, reducing tool inventory, and combining processes.

0.880

1.033

Contact a Kyocera Design Engineer to determine if a custom-made tool is right for your application!



Variations of Diameters and Lead Angles

Kyocera Industrial Ceramics Corp

Cutting Tool Division - Custom Tools

ph 419-738-6652 x268 ■ fax 419-738-5969

www.kyocera.com/cuttingtools ■ customtools@kyocera.com

Create Tools with a Custom Shank:

- CAT
- ABS*
- BT
- HSK
- Metric
- Special Diameters & Lengths



Combination Milling Cutter that Creates a Profile



Custom Back Facing Cutter

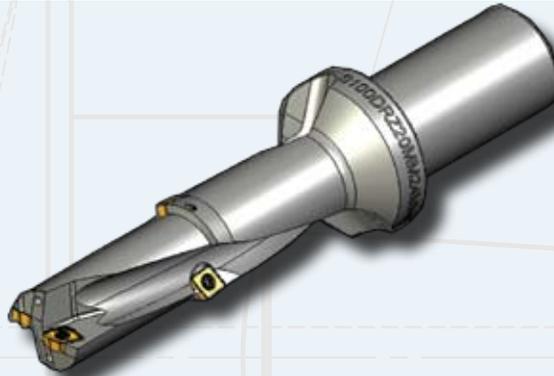
*ABS is a registered trademark of Komet Präzisionswerkzeuge Robert Breunung GmbH, which is not affiliated in any way with Kyocera or any other Federal Signal Companies.

Kyocera custom-made tools,
designed and built for your specific application,
are as simple as modifications to standard product ...

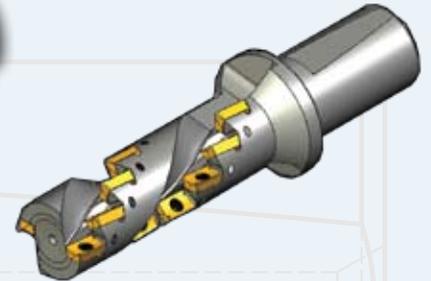
Variations of Standard Toolholders



A 6.0" diameter Holeshot style drill with an 8" drilling depth and through coolant on a 2-1/2" shank.



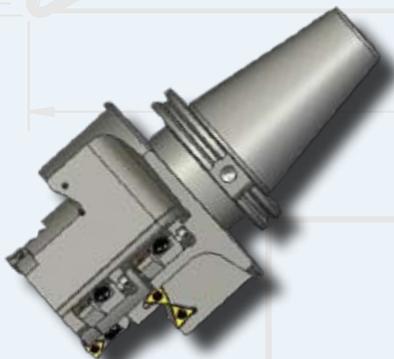
A 20mm diameter Magic drill with a countersink.



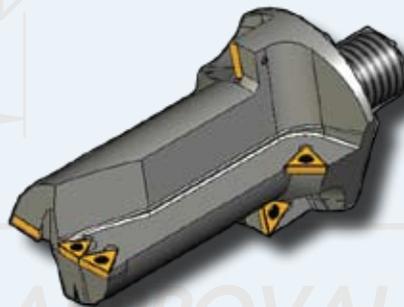
A 1.50" diameter long edge mill with 4-1/2" LOC on a 1-1/2" shank using the polished APET inserts. This tool is 2 flute, 2 flute effective.

to the most complex combination tools...

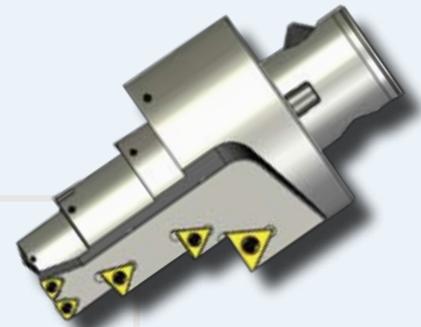
Custom-Made Combination Toolholders



A 3.553" diameter combination tool with standard and special cartridges on a CAT50 shank. This tool is coredrilling, counterboring, facing and chamfering.



A 34.44mm diameter combination tool on a special threaded shank with facing and chamfer. This tool also utilizes a center insert to break up a thin cast web.



A 1.625 dia. drill on an ABS80* shank with a countersink, counterbore and facing using through coolant.

Customized Tool Ordering Procedure

To request a quote for a custom tool, please follow the steps below:

1. Photocopy and fill out the Special Tool Design Form on page 4 of this brochure.
2. Email a scanned version or fax a hard copy of this form, along with any necessary prints and drawings to the Kyocera Custom Tools Department. Email: customtools@kyocera.com - Fax: 419-738-5969.
3. Call the Kyocera Custom Tools Department at 419-738-6652 x268 with any questions regarding the custom tool quotation procedure.



SPECIAL TOOL DESIGN WORKSHEET

DATE: _____

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CUSTOMER INFORMATION

Company Name: _____
 Contact: _____
 Address: _____
 City, State, Zip: _____
 Kyocera Distributor Name: _____

Phone: _____
 Fax: _____
 Email: _____

PART INFORMATION

Part Number or Description: _____
 Material: _____ Hardness (Rc): _____
 Current problem or objective: _____

MACHINE INFORMATION

Machine being tooled: _____ Machine condition, age: _____
 Spindle Hp: _____ Max RPM: _____ Max IPM: _____
 Circle one of each: Horizontal or vertical spindle? Stationary or rotating tooling?

TOOL INFORMATION

Describe the tool (drill, mill, combo tool?) _____

 Quantity to quote: _____ Shank size/description: _____
 Right or left hand cutting: _____ Thru coolant? (and inlet type/location): _____
 Size or weight restrictions (if applicable): _____

- Prints and Drawings
 Finished part
 Raw stock or casting
 Fixturing
 Special inserts, hardware, etc.
 Process sheet
 Existing tooling

- Supplied information should include:
 Tolerance requirements, raw stock tolerances
 Surface finish requirements (witness lines ok?)
 Depth(s) of cut
 Fillets, inside corner radii (insert nose radii)
 Allowable overtravel on thru cuts
 Amount of finish stock to leave