KERNVEX
PRECISION CUTTING TOOLS

Precision cutting tools

Carbide inserts and special tooling
Customer application presentation



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A FOCUSED ALTERNATIVE

Existing systems. New cutting options.

Selected compatible inserts can retain proven holders and cutters.

Application engineering matches the geometry and grade to the component.

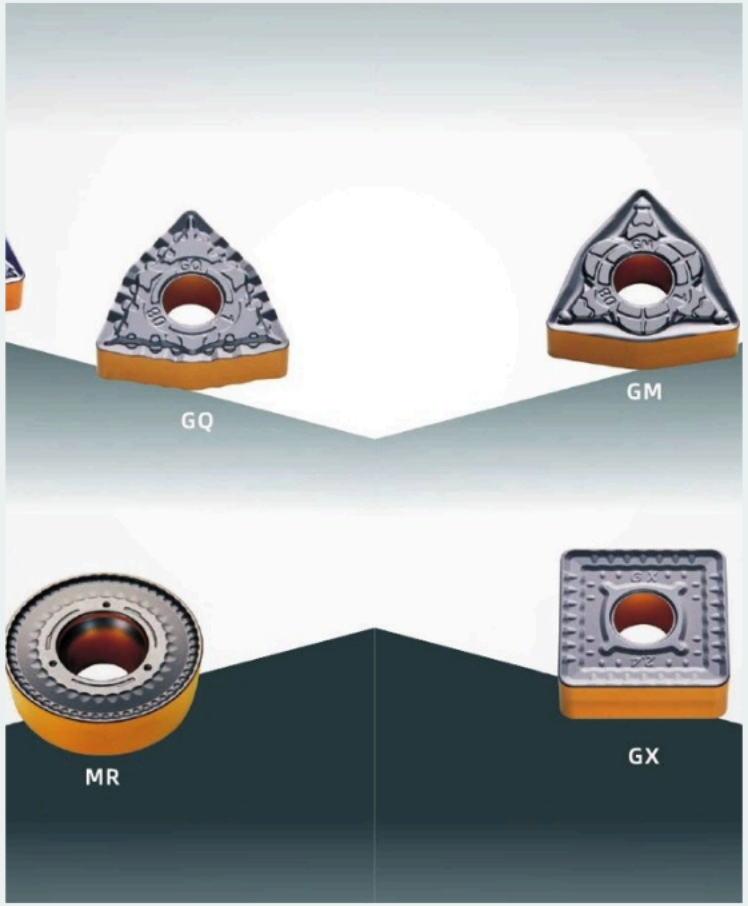
Trials establish tool life, quality and cost per component.

TURNING

Carbide inserts

External turning, facing and profiling

Grade, chipbreaker and edge preparation follow the material and interruption.



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MILLING

Indexable cutters and inserts

Face, shoulder and profile milling

Insert pocket, approach angle, engagement and machine power guide selection.



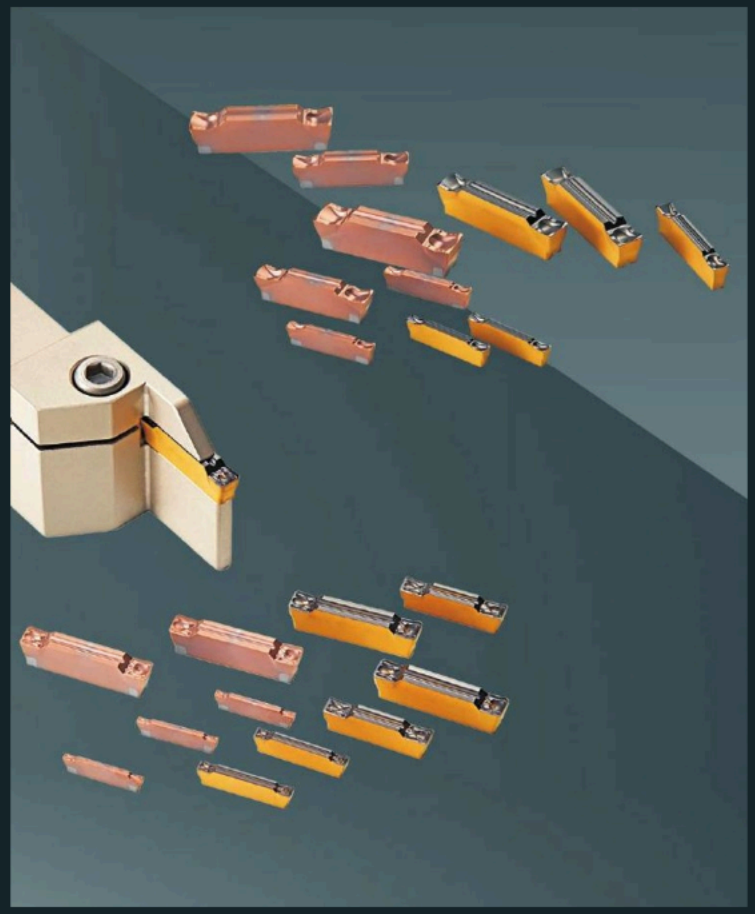
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GROOVING

Grooving and parting

External, internal and face grooving

Selected PENTA-style and four-edge interfaces require exact holder-code verification.



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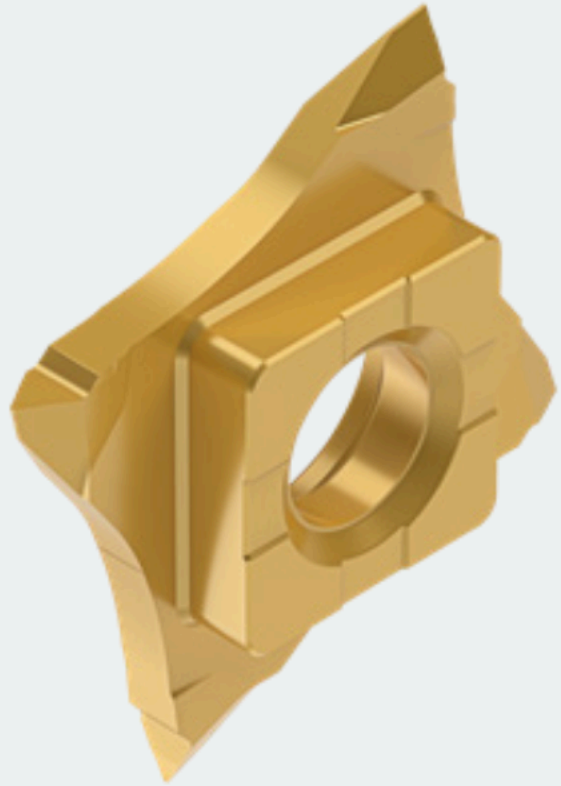
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SPECIAL INSERTS

Profiles built around the feature

V-pulley grooves, flank profiles and custom forms

Drawing tolerances and holder interfaces define the proposal.



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SOLID CARBIDE MILLING

End mills

Square, ball nose and corner-radius geometries

Flute geometry and reach follow material, feature depth and machine rigidity.



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HOLEMAKING

Solid carbide drills

Standard holes and special step geometries

Depth, chip evacuation and coolant strategy guide selection.



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STANDARD REAMERS

Straight and valve-guide forms

Bore finishing with controlled allowance

Diameter tolerance, finish and guide length define the tool.



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PCD REAMERS

Clear cutting edges for bore finishing

PCD cutting edges for suitable aluminium and other non-ferrous materials

Straight or shear-flute designs follow the application.



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SPECIAL REAMERS

Combination and stepped forms

Drawing-specific diameters, steps and chamfers

Coolant delivery, bore alignment and inspection criteria guide development.



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COMBINED TOOLING

Lugged carbide tools

Carbide cutting sections on a tool body

Special drilling, reaming and combined profiles reviewed against the component.



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OPERATION REDUCTION

Combined taper tooling

Conventional: drill, hole mill, taper drill, ream

Proposed: one engineered combination tool where feasible

Blue-contact target requires agreed inspection and a validated trial.



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BRAZED TOOLS

Turning and boring forms

Carbide tips on a tool body

Tip shape, body clearance and reach follow the machining requirement.



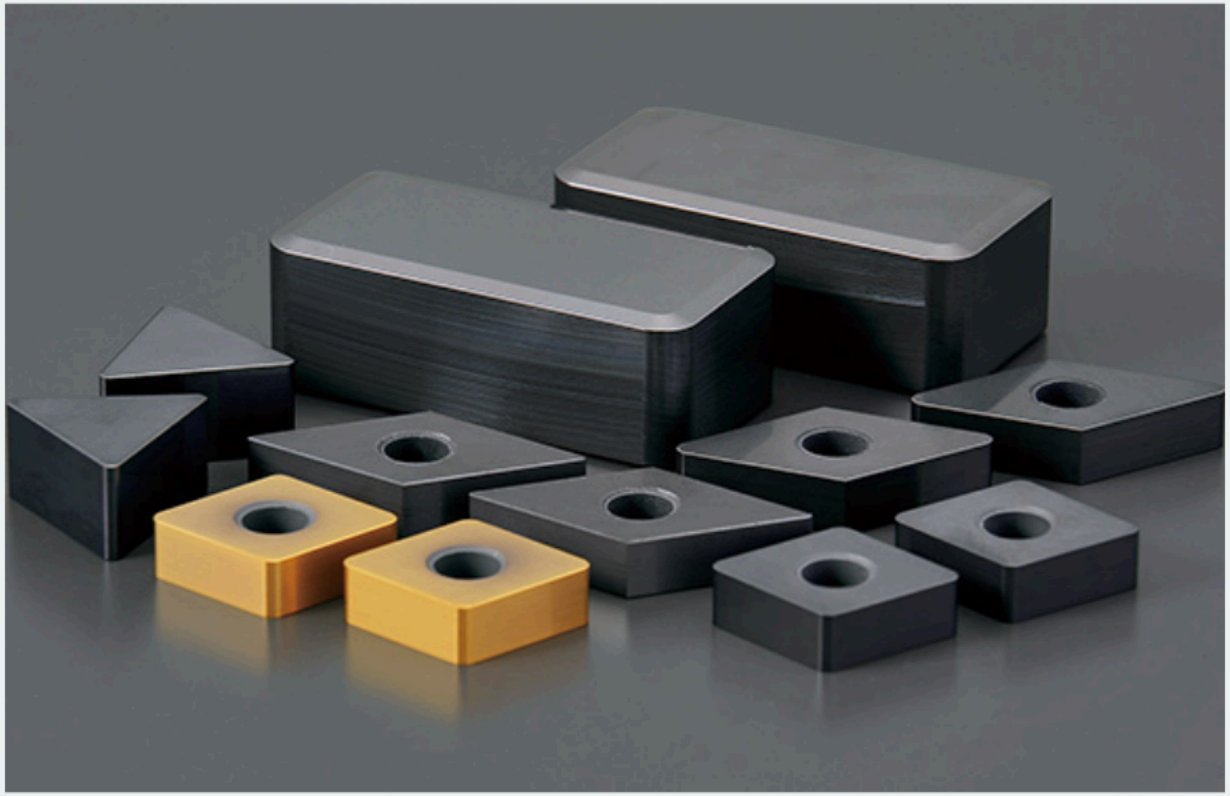
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CERAMIC TOOLING

Turning inserts

For suitable cast iron, hardened material and heat-resistant alloy applications

Material, interruption and machine rigidity govern selection.



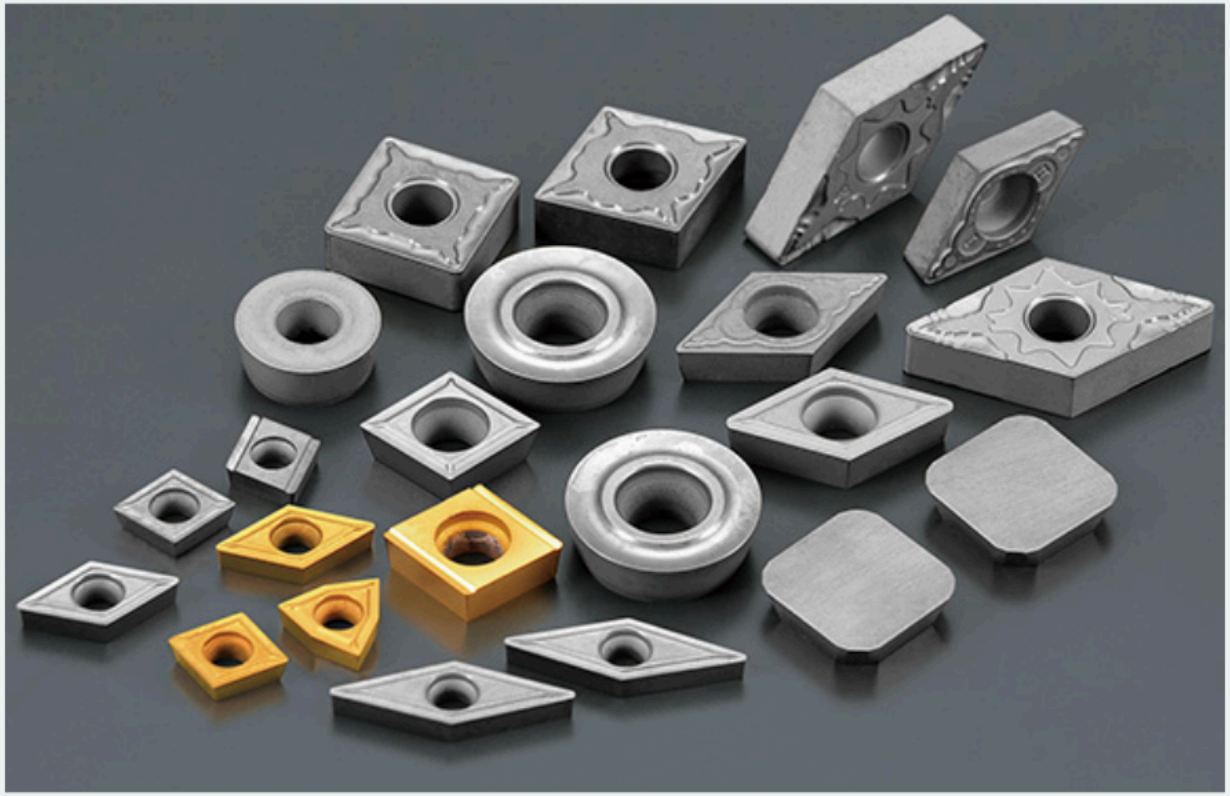
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CERMET TOOLING

Finishing inserts

Finishing options for suitable steel applications

Stable cutting conditions support surface finish and dimensional consistency.



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COMPATIBILITY REVIEW

The interface comes first

Existing holder code and insert designation

Pocket seat, clamp, screw and cutting width

Drill coupling, diameter range and coolant path

Physical fit and trial validation before release

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CUSTOMER TRIAL

Performance measured on the component

Tool life: components per usable edge

Cycle time: actual machining seconds

Quality: size, finish and rejected parts

Cost per component: usable edge cost divided by components

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Tooling for your next component

Share the component drawing and existing process.

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