New Pentac® Plus Cutter System.
✔ 25% longer tool life than Pentac®.
✔ Enhanced chip flow, avoids chip packing.
✔ Easier, faster and more precise blade height and radial adjustments.

Pentac® Cutter System.
✔ Revolutionary new Gleason cutter system for both face hobbing (FH) and face milling (FM).
✔ Available in high speed steel and carbide, with various coatings.
✔ Pentac® is easier to build than conventional cutters, more rigid and durable.

Tri-AC® Face Hobbing Cutters.
✔ Face hobbing cutter system used for completing operations.
✔ Stick blade-type rectangular size.
✔ Patented rake angle modification on HSS blades produces a positive side rake on the top portion of the clearance side.

The new Spiroform™ cutter .
utilizes the new Pentac® Plus features with 12° inclined Pentac® type stick blades which can be developed either with a permanent coated front face and a 2-face sharpened geometry or as 3-face sharpened blades. This modern and stiff cutter solves the problem of precisely duplicating the flank geometry cut with the older Spiroflex cutter system which requires 3 blades per blade group.

The Gleason Cyclocut™ method.
was developed as a modern jobbing system which combines the advantages of the classic jobbing method (using interlocking 2-part cutters) with the features of modern high speed dry cutting based on an exceptionally stiff cutter head design. Cyclocut™ cutters utilize all the features of the new Pentac® Plus System.
✔ Lower investment in cutting tools.
✔ One part cutter easier to build.
✔ Completing process rather than fixed setting in case of large gear cutting with 2 cutters.

Solid Cutters.
A highly productive cutter used for completing and finishing operations.
It’s made with the blades and cutter body as one integral unit, and is particularly useful for cutting smaller fine pitch gears.
✔ Proprietary manufacturing processes for superior accuracy.
**Hardac® III Cutters.**
- Adjustable in both angular and radial planes, these inserted blade cutters are used for completing or finishing.
- Truing with a proximity-equipped unit allows positioning of blade profiles to within .000040”.
- Rigid design enables completing of spiral and hypoid pinions and gears directly from the solid blank.
- Widely used universal cutter system with HSS blades.
- For greater cutting depths and greater durability than previous HARDAC style cutters.
- Typically for low and medium size volume applications.
- Form blade for front face resharpening.

**Helixform® Finishing Cutters.**
- Single-cycle finishing cutter with alternate inside and outside blades arranged in broach fashion.
- Indexing within a gap allows, with continuously rotating cutter head, a tooth space to be finished in a single rotation of the cutter without withdrawing from full depth.
- Only for finishing applications.
- Used only for face mill finishing applications on Gleason models 607, 609 and 610.

**Ridg-AC®/Wedg-AC® Cutters.**
Inserted-blade face mill cutters designed for high production pinion and gear roughing operations. The use of Ridg-AC®/Wedg-AC® for clamping permits the maximum number of cutter blades for a given diameter, decreasing production times.
- HSS blades only.
- Form blade for front face resharpening.
- Only for face mill applications.

**Coniflex® Plus Cutters.**
The new Coniflex®Plus cutter system is the world’s first peripheral stick blade system with positive blades seating which allows the use of coated two or three face ground carbide blades in a dry high speed PowerCutting® process. Coniflex®Plus gives a complete new dimension for straight bevel gear cutting.
- Pentac®Plus cutter easy to build.
- Dynamically sound cutting tool for excellent process performance.
- Gear quality improvement in surface finish and spacing.
- No cutting oil required.
- 75% saving of electrical energy.
- Environmentally friendly package straight bevel gear manufacturing.

**Coniflex® Cutters.**
Used to manufacture straight bevel gears and clutches. Large cutter diameter allows a simple plunge and roll completing cycle, and eliminates the need for additional motions used on other straight bevel processes.
- One piece design in sizes up to 9” diameter.
- Inserted blade design for 15” cutter diameter.
- Typically used on Gleason CONIFLEX machines 104 and 114.
- Two interlocking cutters per machine.
- Produces localized tooth bearing (crowning).

**Revacycle® Flo-Cut™ Cutters.**
- Circular broach-style cutter used for high-volume manufacture of straight bevel differential gearing.
- Produces one tooth slot in one revolution of the cutter.
- Unique side profile relief design optimizes coolant flow to enhance chip disposal and improve performance.
- High performance powder metal.
- High precision blade geometry.
Bevel Gear and Cylindrical Gear Profile CBN Grinding Wheels.

Gleason Cutting Tools’ new state-of-the-art precision plating facility assures the highest quality, consistency, and faster deliveries on a complete line of high-precision replatable CBN and diamond grinding and dressing wheels, for use with any modern CNC gear profile, gear honing or gear grinding machine.

- Grinding wheels for medium size volumes.
- Used for geometrically fully developed applications.
- Used for deep grinding applications from the solid.

Gleason Bevel Gear Grinding Wheels.

- Improved performance – Designed to meet today’s most demanding bevel gear requirements for more productivity, and higher quality across the complete range of industries and applications.
- Lower cost per workpiece – The option to grind from solid eliminates a rough cutting operation, taking significant cycle and setup time out of the typical process, and reducing equipment and tooling costs.
- Custom solutions – Gleason wheels can be pre-profiled to meet specific customer requirements for special gear profiles.
- Reduced inventories – Special stocking arrangements are available to meet customer requirements for Just In Time (JIT) delivery.

More Gleason Bevel Gear Tooling Solutions

- PHOENIX® CB – Build, measure and true all types of PENTAC®, TRI-AC®, SPIROFORM™, CYCLOCUT™ and RSR® cutters in a single, fast operation, with high accuracy.
- Gleason Blade Profile Grinder (BPG) – Sharpen a wide range of blade types and sizes to improve cycle time, ease of use, and overall cost.
- GBX Blade Inspection System – Automate measurements and calculations for all blade types and styles.

Gleason

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