Best in Class

Whether fine finishing low-noise EV transmission gears in higher volumes or meeting a multitude of jobber versatility requirements, the new and improved Gleason Phoenix® 280G Bevel Gear Grinding Machine outperforms at every level.

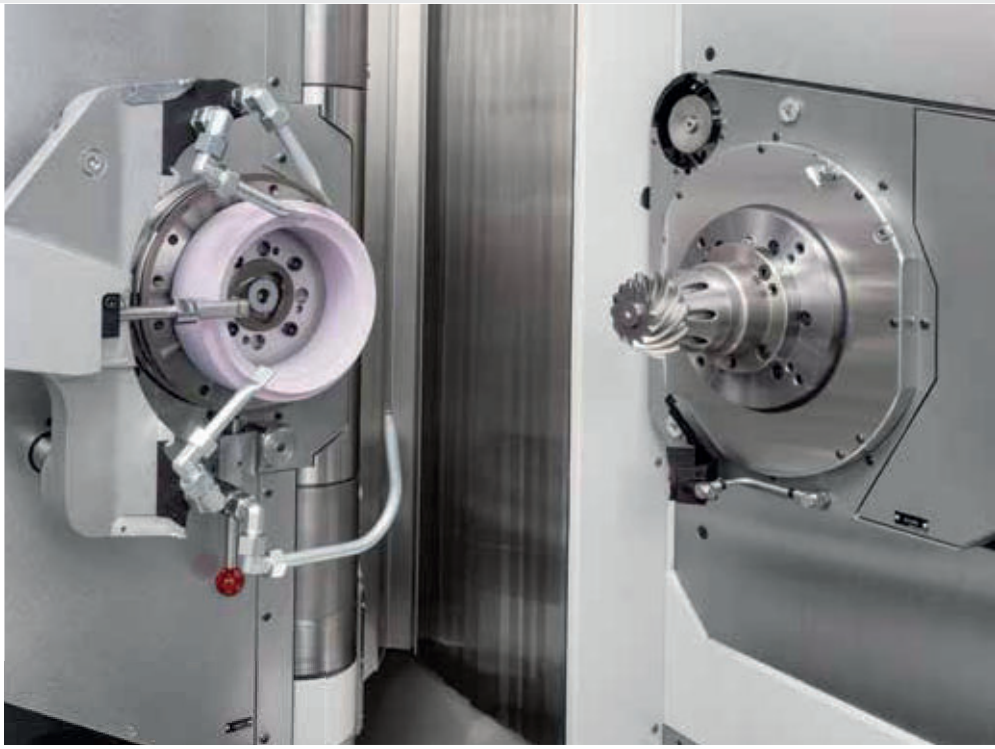
Imagine developing the perfect bevel gear grinding machine for today's automotive gears. You want it more reliable than anything on the market, so you start with a simple, extremely rigid monolithic column design cast out of an advanced polymer rather than using cast iron, thus achieving very high thermal stability and damping. Then you create a remarkably clean work area with no visible rails or flat surfaces and free of pipes, wiring and clutter to optimize swarf containment and evacuation. Even the integrated dressing unit retracts completely out of the work zone during grinding.

Your operators have a lot on their hands so you cut their workload and setup times to an absolute minimum with tool-less workpiece, grinding wheel and coolant pipe changeover. You further reduce non-productive time with automatic stock dividing done in parallel with wheel dressing.

Consistent, repeatable quality is paramount. You mount an automatic stock divider in close proximity to the work spindle for automatically determining the tooth slot position of the pre-finished gear for accurate and reliable stock division. You also design

Simple by Design

The Phoenix® 280G eliminates pipes, wiring and clutter from the work area so that swarf containment and evacuation is extremely efficient.



your machine with coolant headers that can be set up without tools in seconds, with nozzles that deliver high pressure coolant exactly where it's needed. Header positioning is easily repeatable to achieve exactly the same results on the same parts downstream.

To save on first-part inspection time, you add a wireless, removable probe for fast, convenient checking of flank form, tooth size, pitch error and balancing.

Finally, you want one machine to do it all: Coniflex® grinding of straight bevel gears; Coniface™ grinding of face gears; grinding from solid; and the ability to produce Super Reduction Hypoids and Hypoloids…

It's the perfect machine for today's bevel gear fine finishing requirements. We call it the Phoenix® 280G.

High-Reliability Dresser

Telescopic dressing unit extends for dressing and retracts during grinding.

New-Design Coolant Headers

Quick, repeatable tool-less exchange of coolant pipes.

Stock Division in

Automatic stock divider for a con- simultaneously with dressing.

Now, Better Than Ever

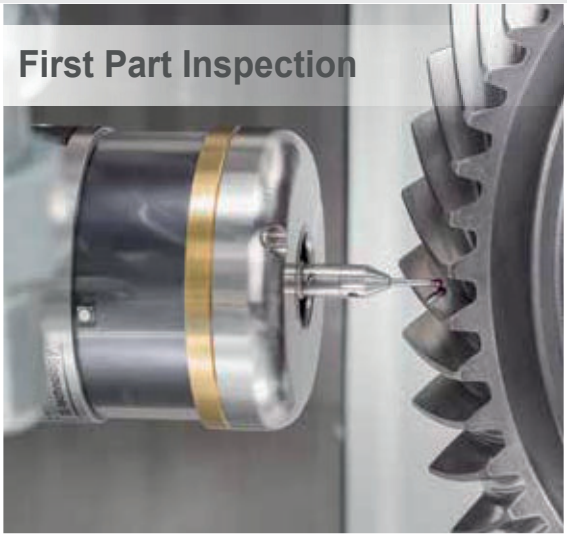
The 280G has been a proven solution for several years, employing all of the many features and benefits described above. New users routinely report index quality improvements of 2-3 classes, and the need for far less random parts checking. Now a host of new capabilities is taking the 280G to an even higher level. These include:

- Automatic compensation for workholding runout: 75% less.
- Polish grinding: for low-noise, less fuel consumption.
- UNIMILL™ Universal Milling Method: ideal for prototyping and front hub cutting.
- Next-generation grinding wheels: less wheel wear per part to reduce dressing.
- Automation solutions to increase throughput.
- Closed Loop connectivity with inspection for corrections on the fly.

All types of face and straight bevel gears, SRH, Zerol®, spiral and hypoid gears, couplings and even straight bevel gears with front hubs can be produced.

Parallel

sistently high part quality;



First Part Inspection

Integrated workpiece measuring for simple and fast inspection of the first workpiece.

Quick-Change Tooling

Quick-change tooling for workholding and tools.

Different models of Gleason bevel gear grinding wheels cover the widest range of applications, including grind from solid.

Meet the 280G

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