

Metso

Gear and pinion services

Gear set replacement

The perfect opportunity to improve your design.



Your challenge:

Evaluating gear designs and fabrications requires the right resources. While easier, a direct replacement may not provide the best option for cost savings, quality and delivery time.

Metso solution:

- **Review gear tooth design**, to ensure safe and extended operations with calculations done to AGMA standards
- **Structure and material selection**, to optimize design for quality and cost benefits as well as quicker deliver

The gear tooth design process

- Gear operations can be significantly improved with better design of gear teeth
- Metso experts perform teeth calculations to AGMA standards to determine safety factors in the teeth. Design is then optimized to suit new materials
- Pinion teeth can also be added to speed the mill for improved production

Selecting structure and materials

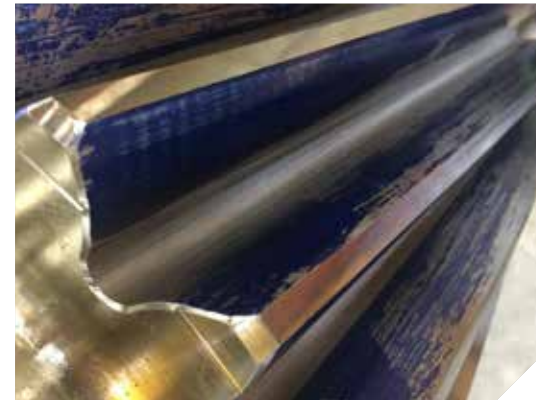
- Complete manufacturing drawings are created, with custom manufacturing and quality specifications requested for every gear set
- Metso engineers select the optimal gear section (T or Y) for your mill, as well as materials (iron/steel) and manufacturing methods (cast/welded)
- Gear guard seals are also upgraded to latest design

Why Metso services?

- As the OEM, Metso has detailed drawings, design expertise, as well as an in-depth understanding of gear, pinions and the components they interact with
- Metso collaborates with multiple manufacturing facilities worldwide to optimize quality, cost and delivery



Replacing a previously cast gear with a new welded design



Performing a roll test to confirm optimal gear and pinion contact



A new and optimized pinion certified for installation