

ADVANTAGES OF CREEP-FEED (FULL-DEPTH) GRINDING vs. CONVENTIONAL MACHINING

- **Increased** productivity and quality of parts requiring slots and/or profiles.
- **Eliminates** costly first operations such as milling, broaching or turning. The form or slot can be creep-feed ground to full depth from the solid.
- **Fully** hardened parts can be creep-feed ground from the solid--thus, in many cases eliminating the need for straightening operations required prior to conventional reciprocation grinding after milling and heat treating.
- **Reduced** handling time and cost. For example, a conventional machining process of a part may require:
 1. Milling
 2. Deburring
 3. Heat Treat
 4. Straightening
 5. Reciprocating Grinding.

Whereas with creep-feed, the milling, deburring, straightening, and extra handling operations can be eliminated.

- **Reduced** set-up time and costs due to combined operations.
- **Reduced** tooling costs (i.e., formed milling cutters, broaching tools, etc. as compared to grinding wheels).
- **More** parts processed per wheel life due to less wheel breakdown when compared to reciprocation grinding.
- **Reduced** wear on dressing tools due to the use of softer wheels.
- **Wheel** form maintained longer--thus, requiring less redressing and resulting in increased productivity.
- **Reduced** grinding wheel cost due to less wear and fewer number of dressing operations required.
- **Improved** tolerances and surface integrity as opposed to milling, broaching or turning.