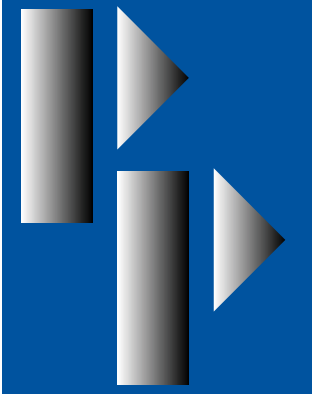


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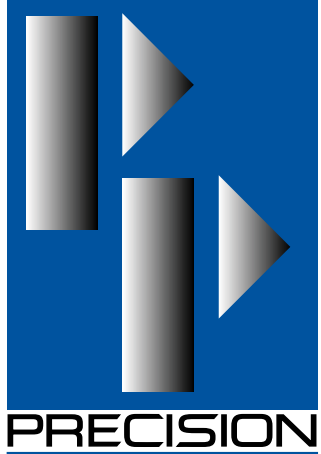
CREEPFEED GRINDING

Creepfeed grinding involves the form grinding of parts with a very rigid machine whose wheel is shaped by a carbide roll. The roll forms the wheel by fracturing the grains, making a very sharp cutting surface. Using high pressure coolant, the wheel is able to grind the shape into the part with one full-depth pass. This process is a very cost-effective means of form grinding.

Especially valuable is the fact that, unlike conventional grinding, there is little thermal or stress damage to the material being ground. Diamond dressing rolls can also be employed for finely shaped forms or for massive stock removal using continuous dress wheel dressing.

— SEE DESCRIPTION OVER —

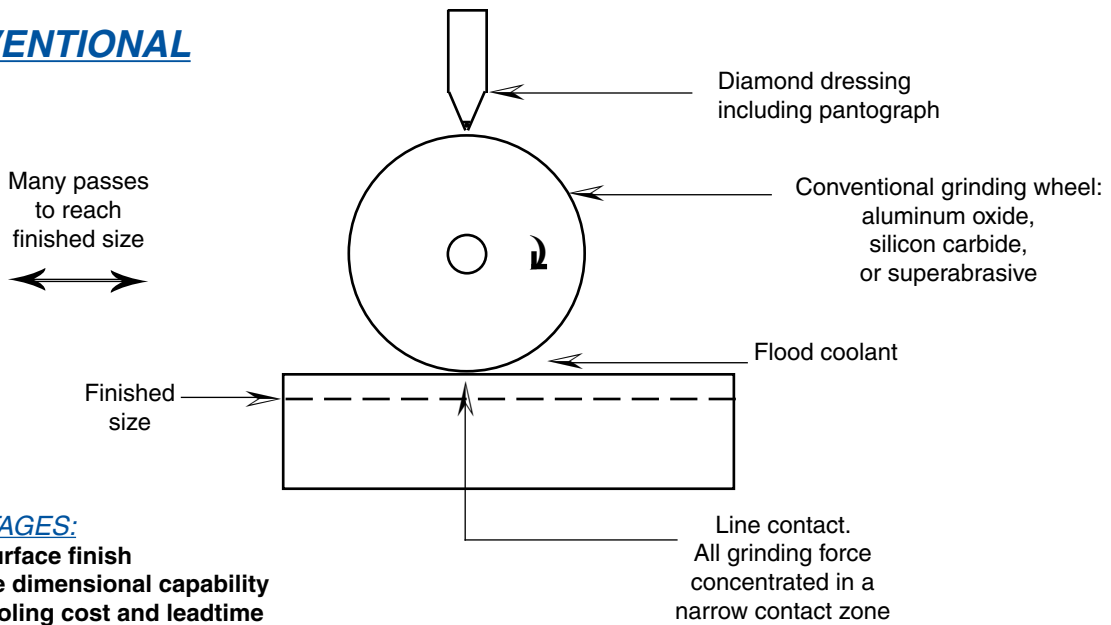




CREEPFEEED GRINDING

A COMPARISON WITH CONVENTIONAL GRINDING

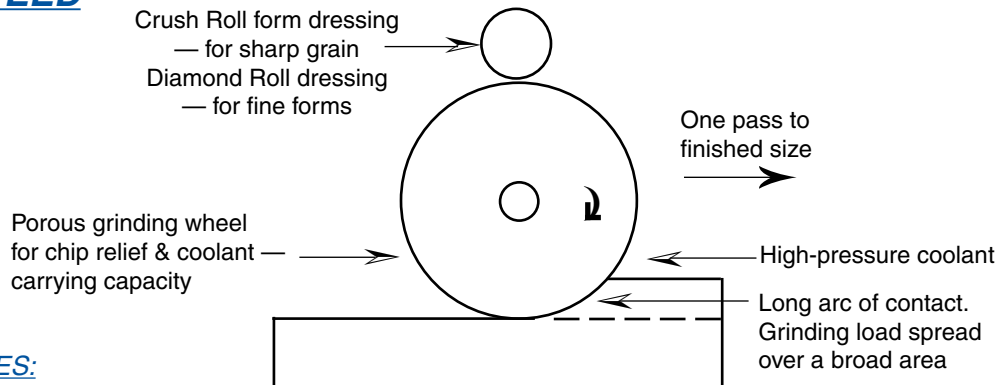
CONVENTIONAL



ADVANTAGES:

1. Fine surface finish
2. Precise dimensional capability
3. Low tooling cost and leadtime

CREEPFEEED



ADVANTAGES:

1. Reduced grinding stress
 — less part warpage and thermal damage
2. Large stock removal capability
3. Higher production rates
 — one pass to full depth and form
4. Can generate simple to complex profiles