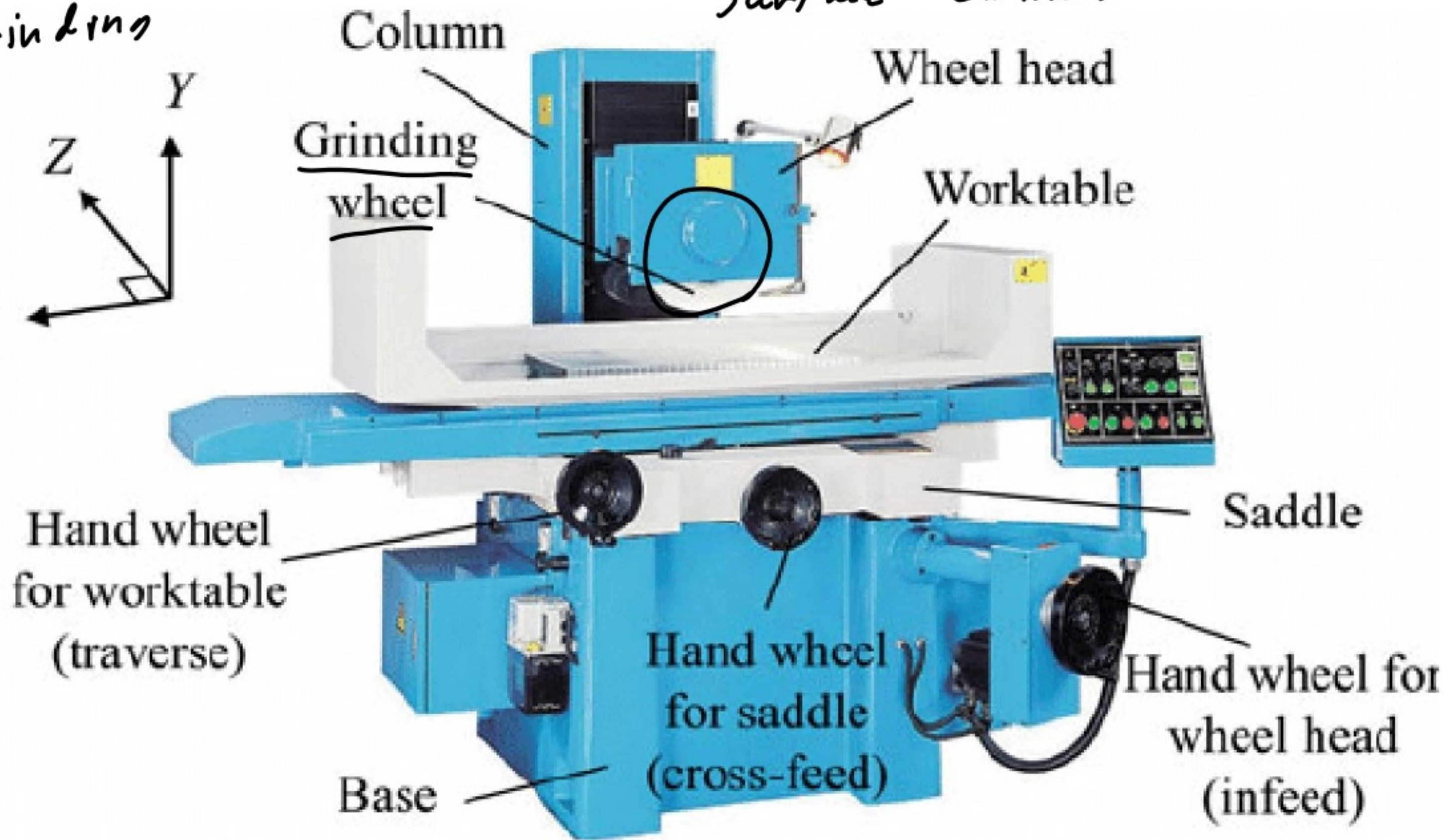
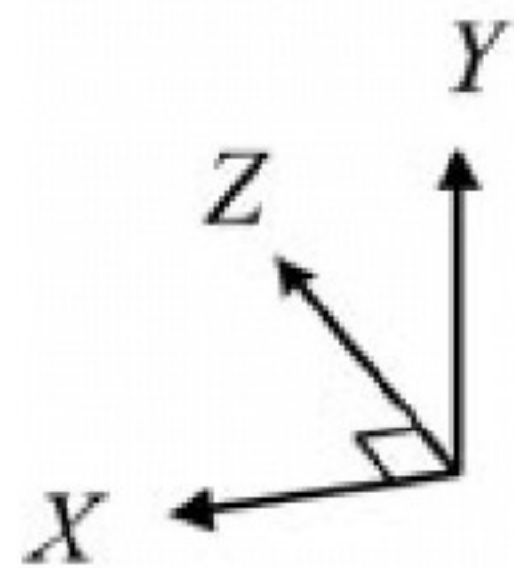
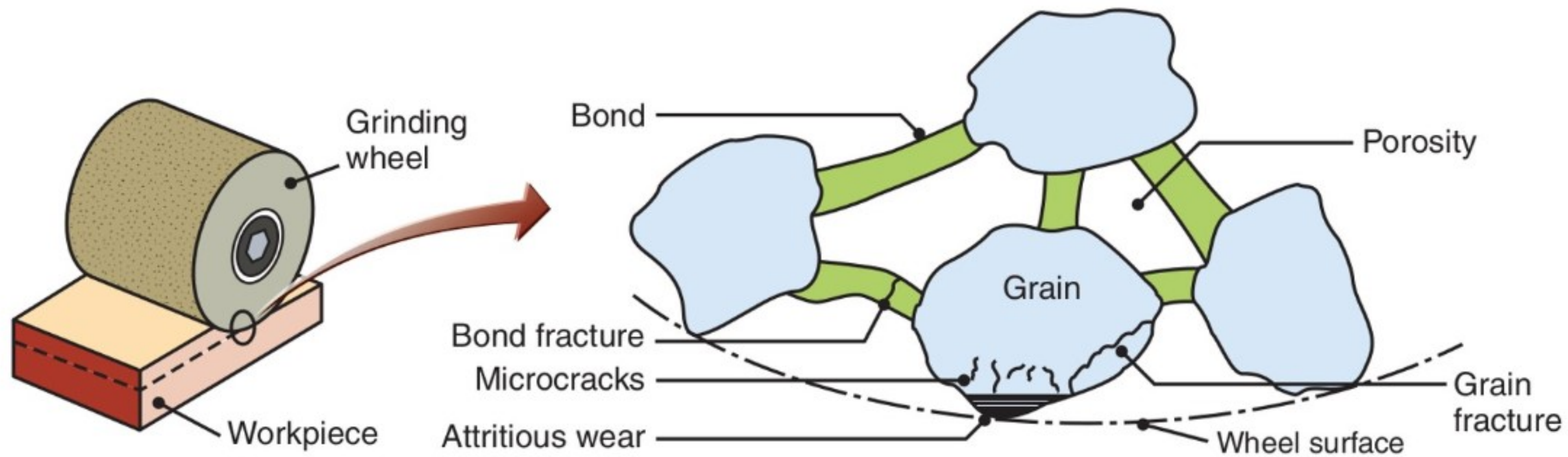
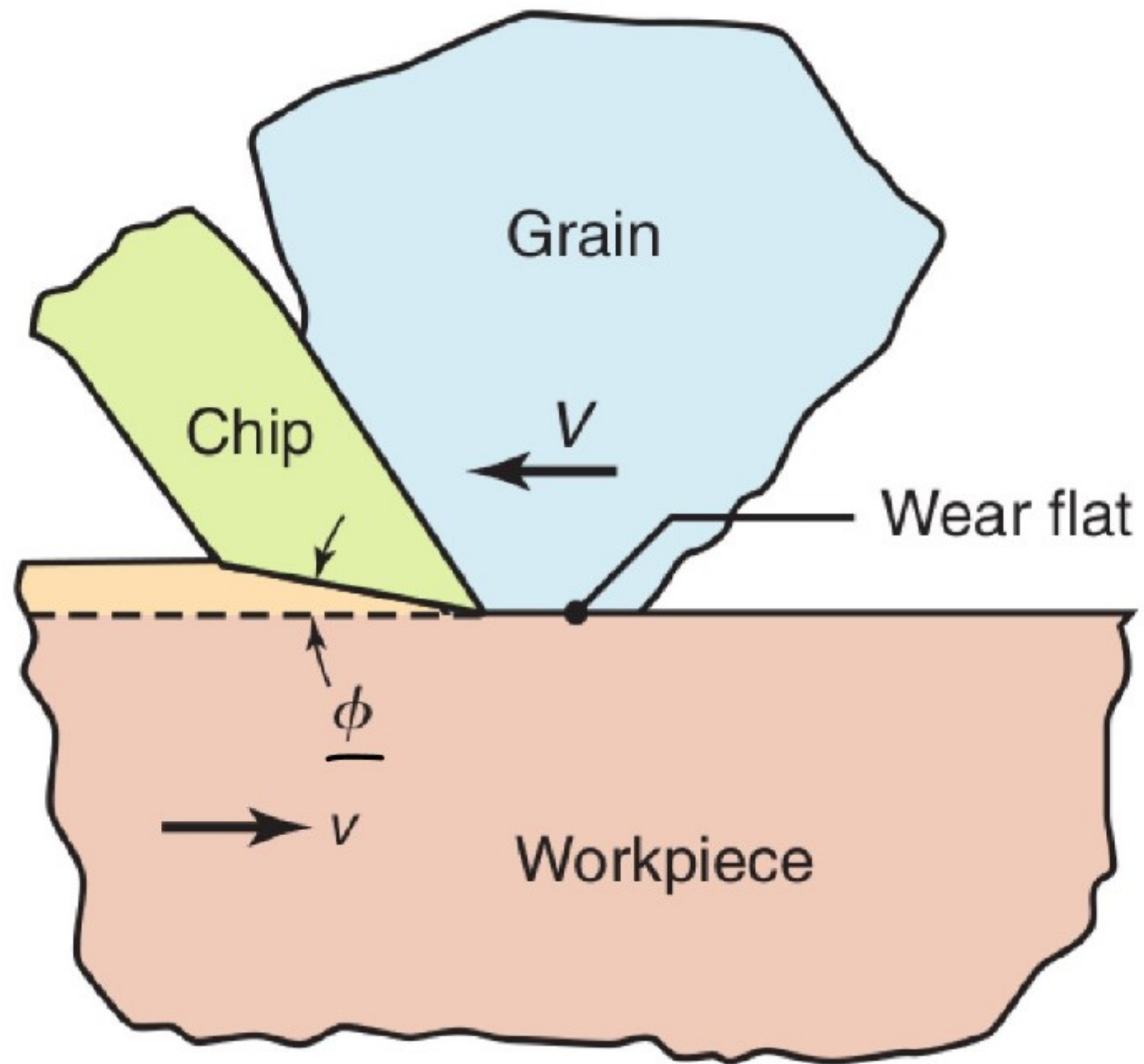


# Grinding

## Surface Grinder









# Grinding Materials

Aluminum Oxide

Silicon Carbide

Cubic Boron Nitride

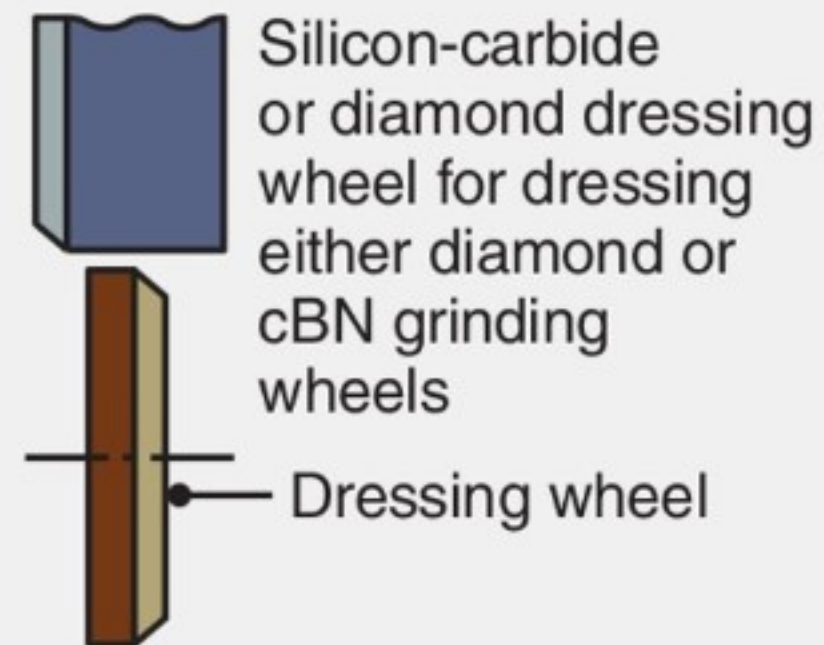
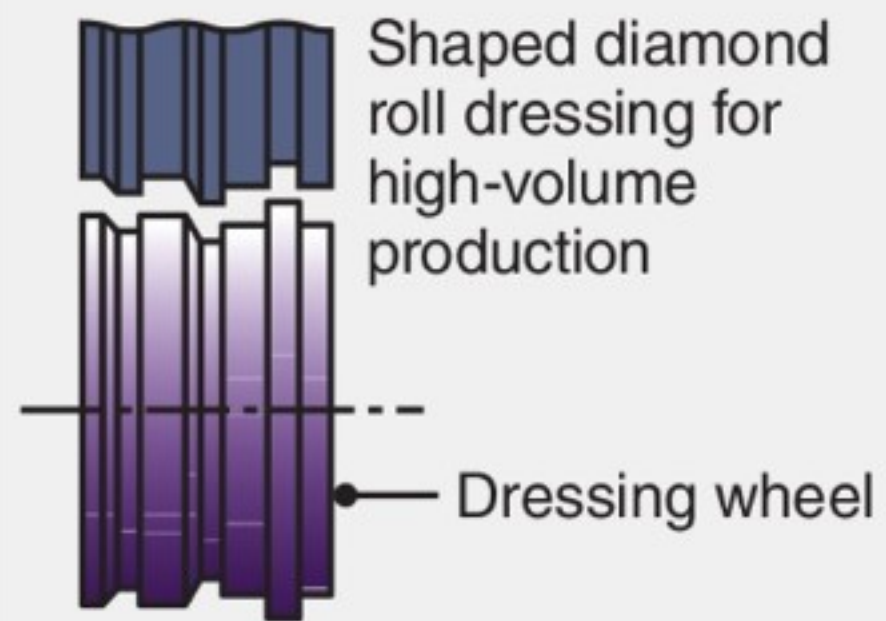
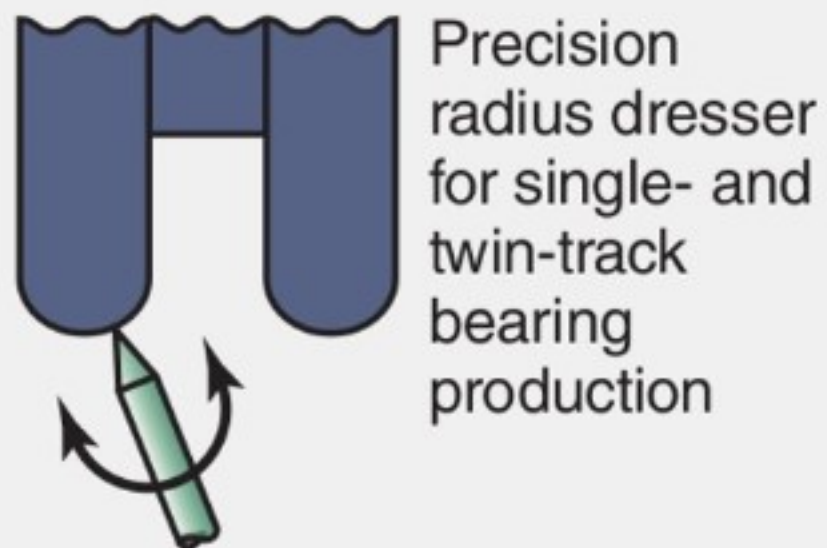
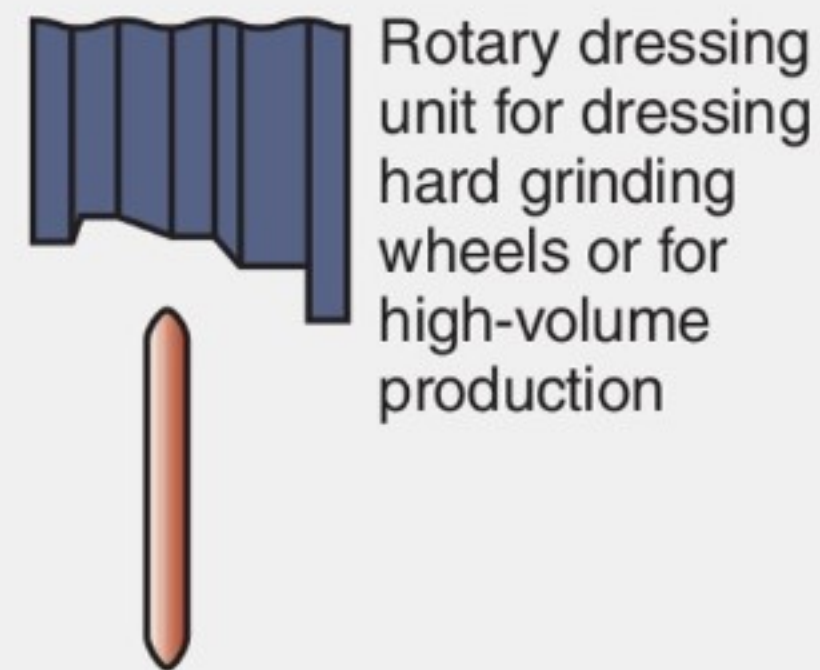
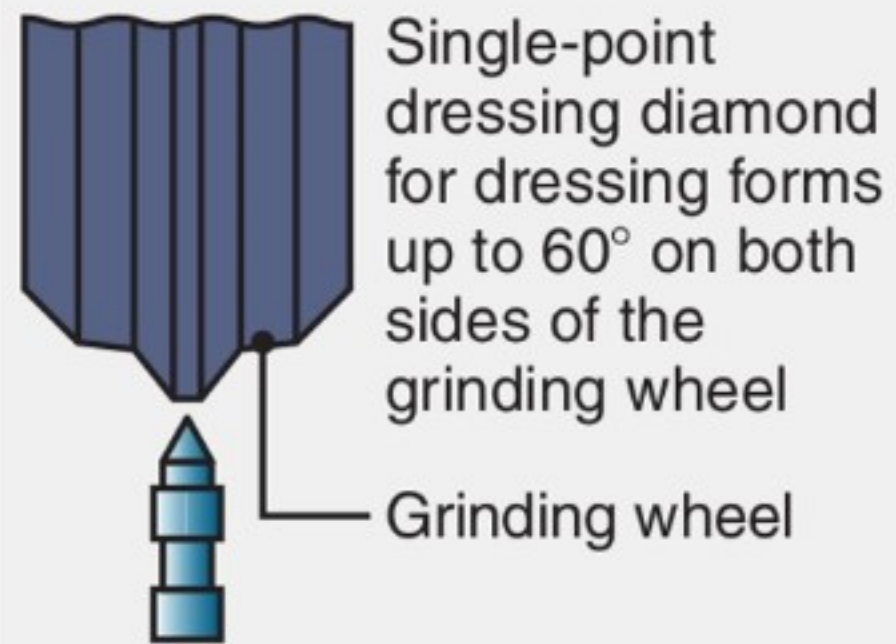
Diamond

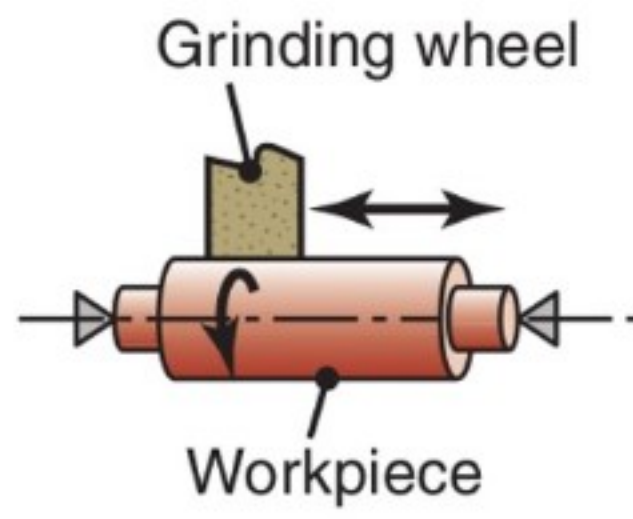
# Grinding Ratio

$$G = \frac{\text{Volume of Material Removed}}{\text{Volume of Wheel Removed}}$$

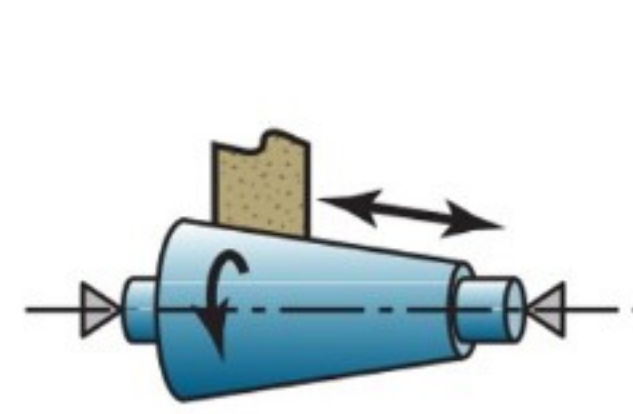
Typical G 2-200



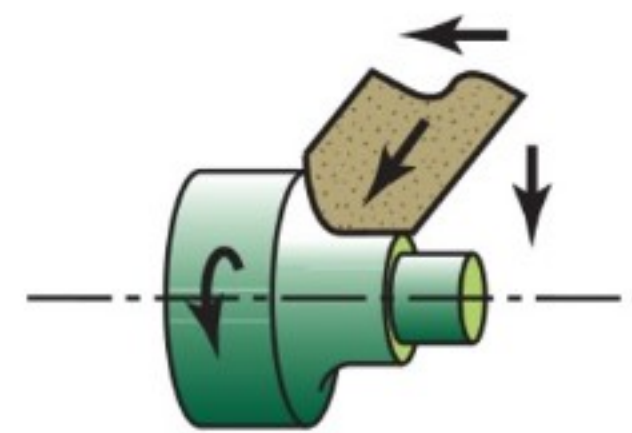




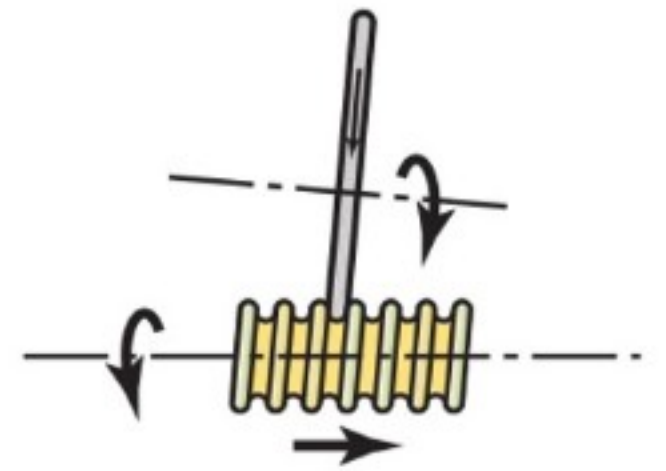
(a)



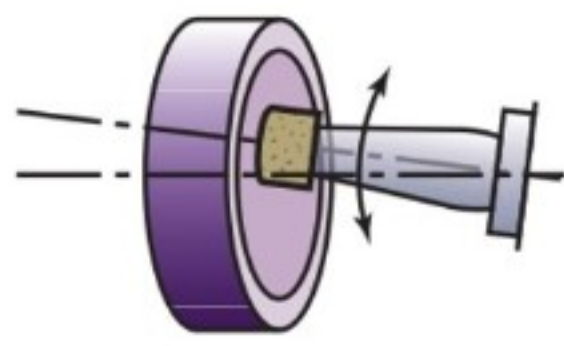
(b)



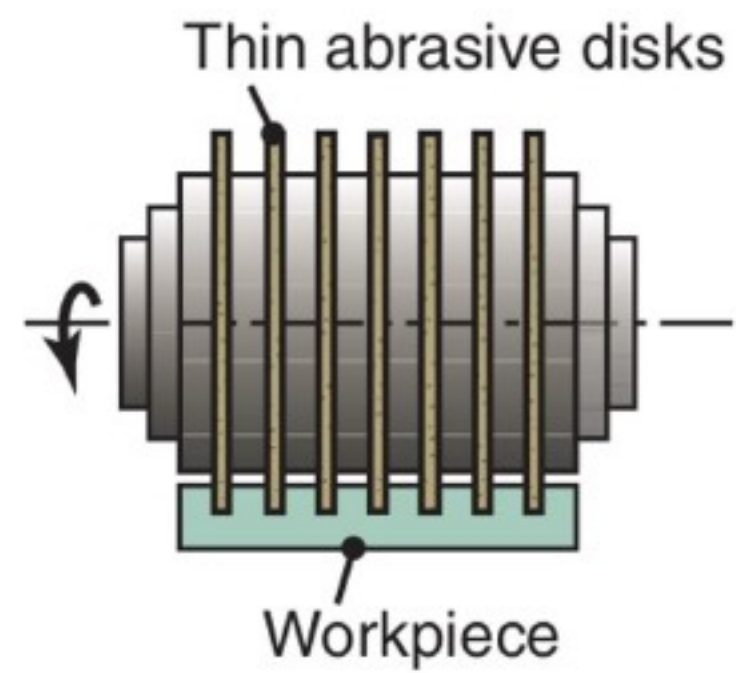
(c)



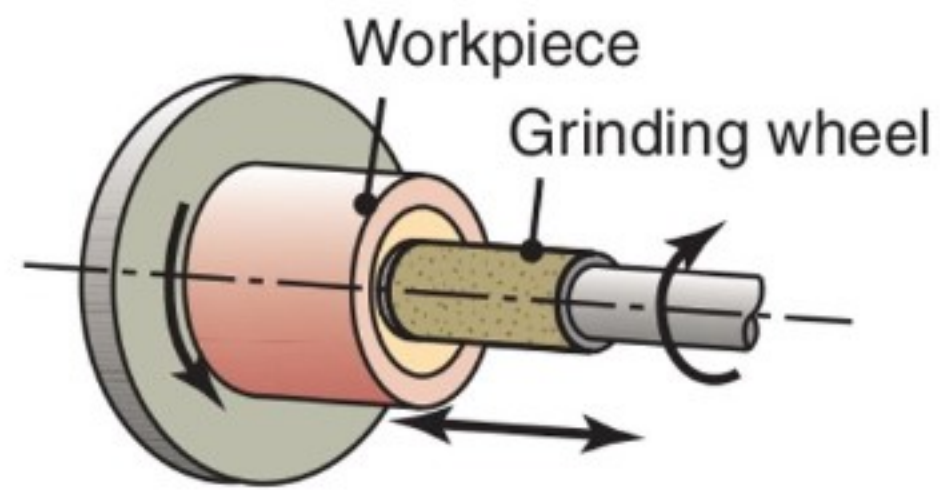
(d)



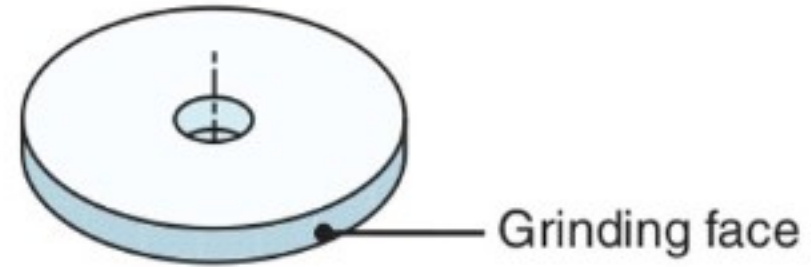
(e)



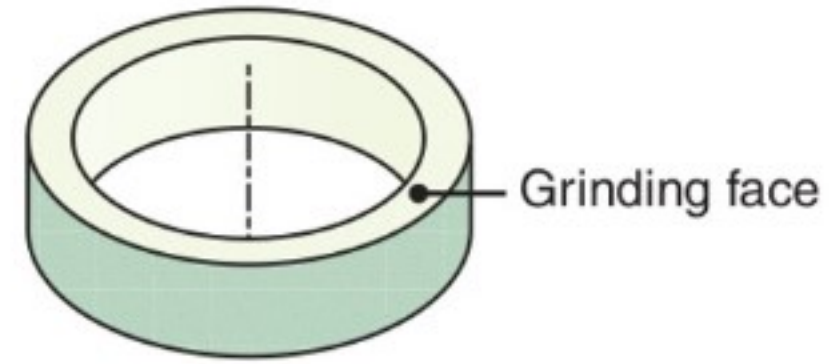
(f)



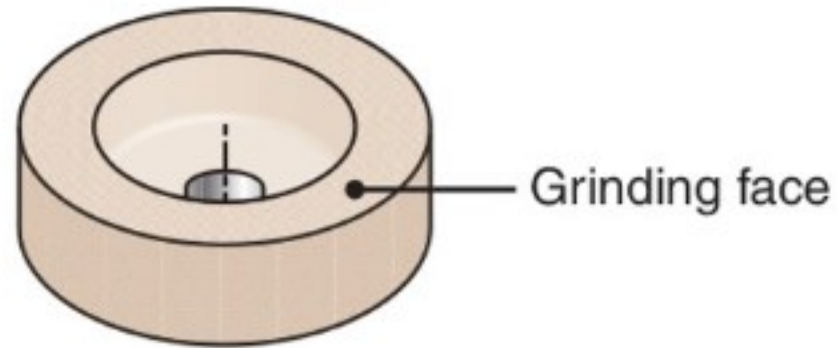
(g)



(a) Type 1—straight



(b) Type 2—cylinder



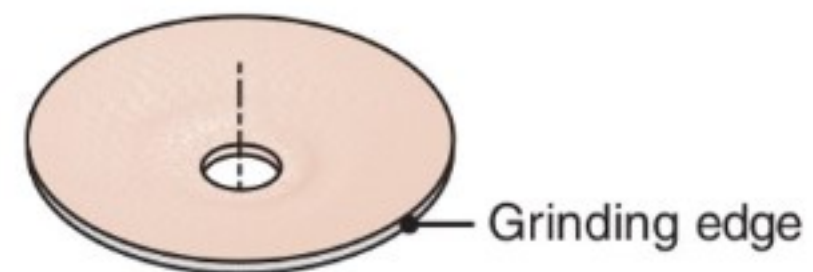
(c) Type 6—straight cup



(d) Type 11—flaring cup



(e) Type 27—depressed center



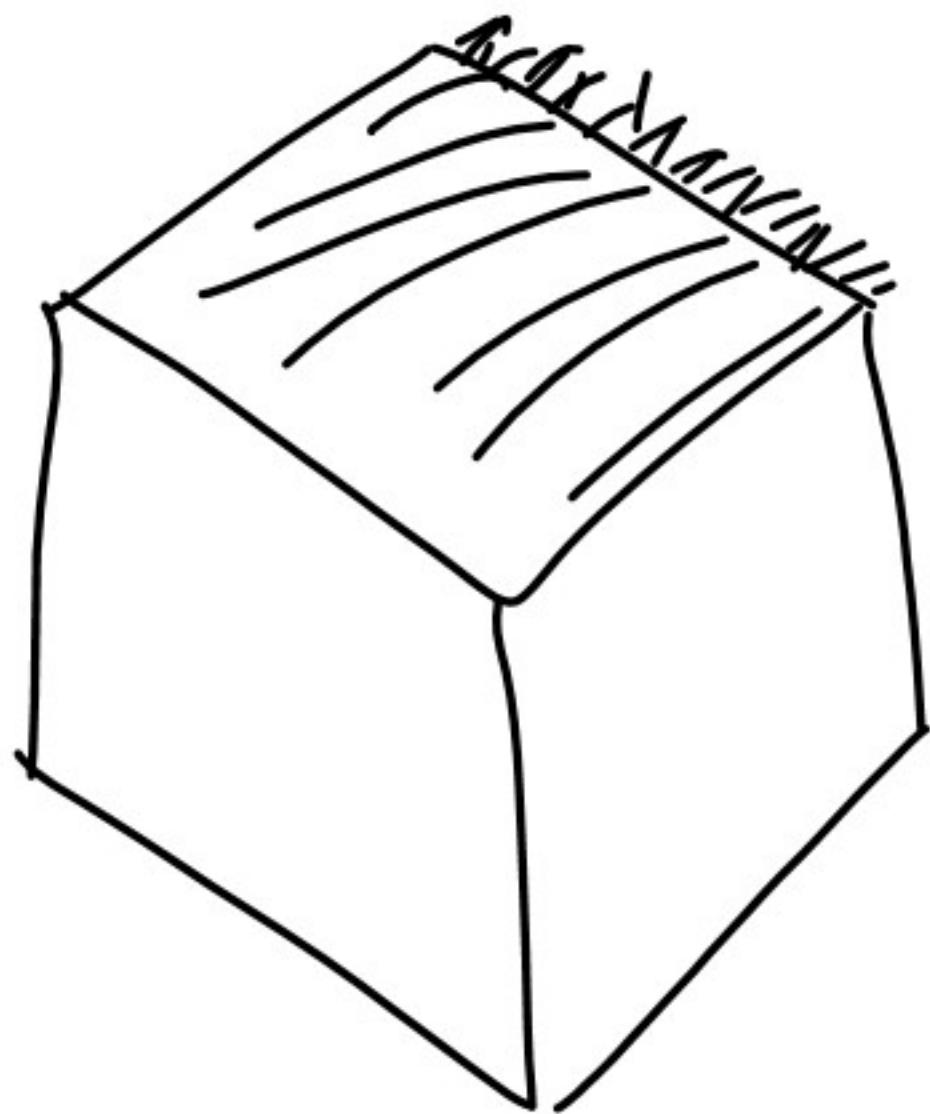
(f) Type 28—depressed center

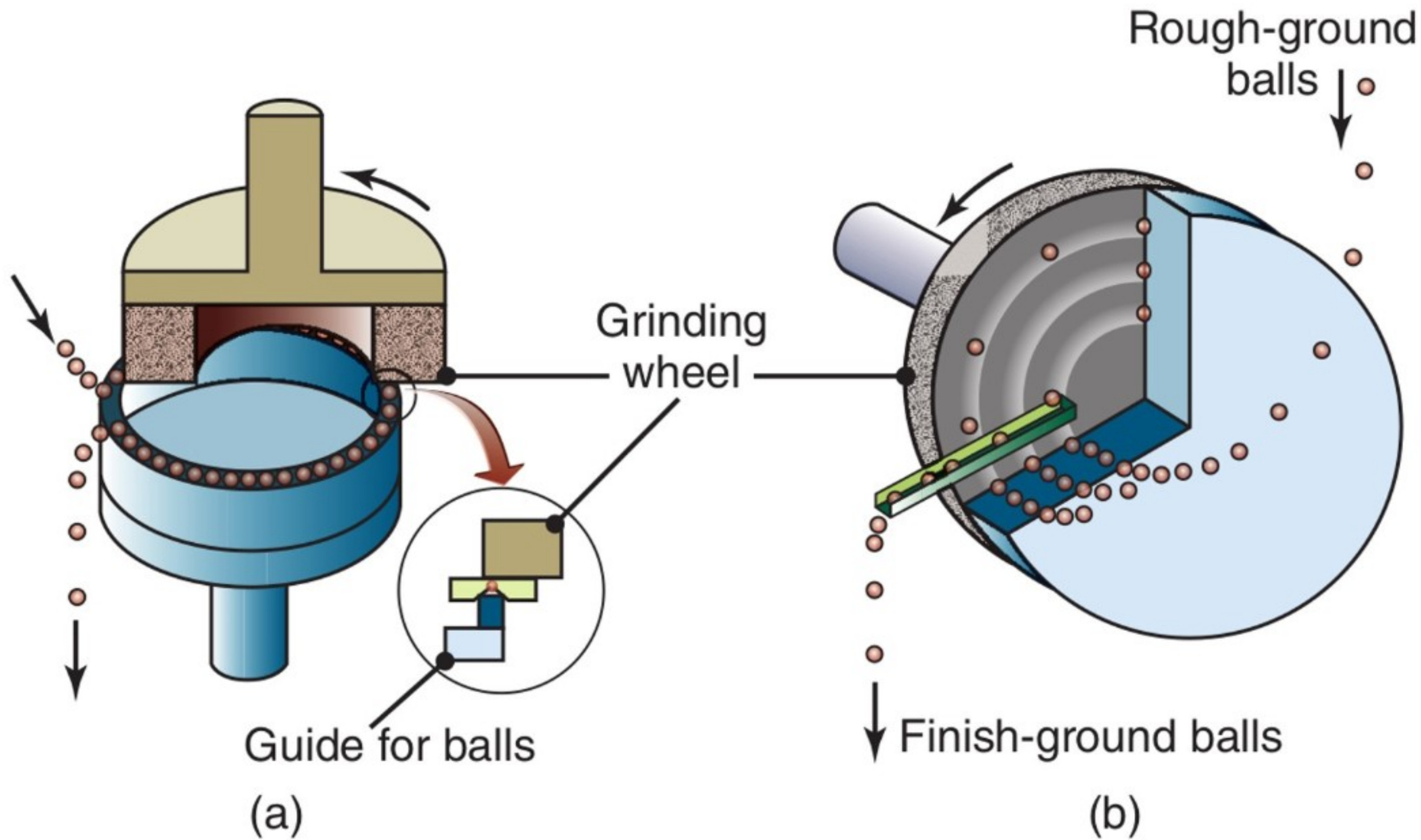


(g) Mounted



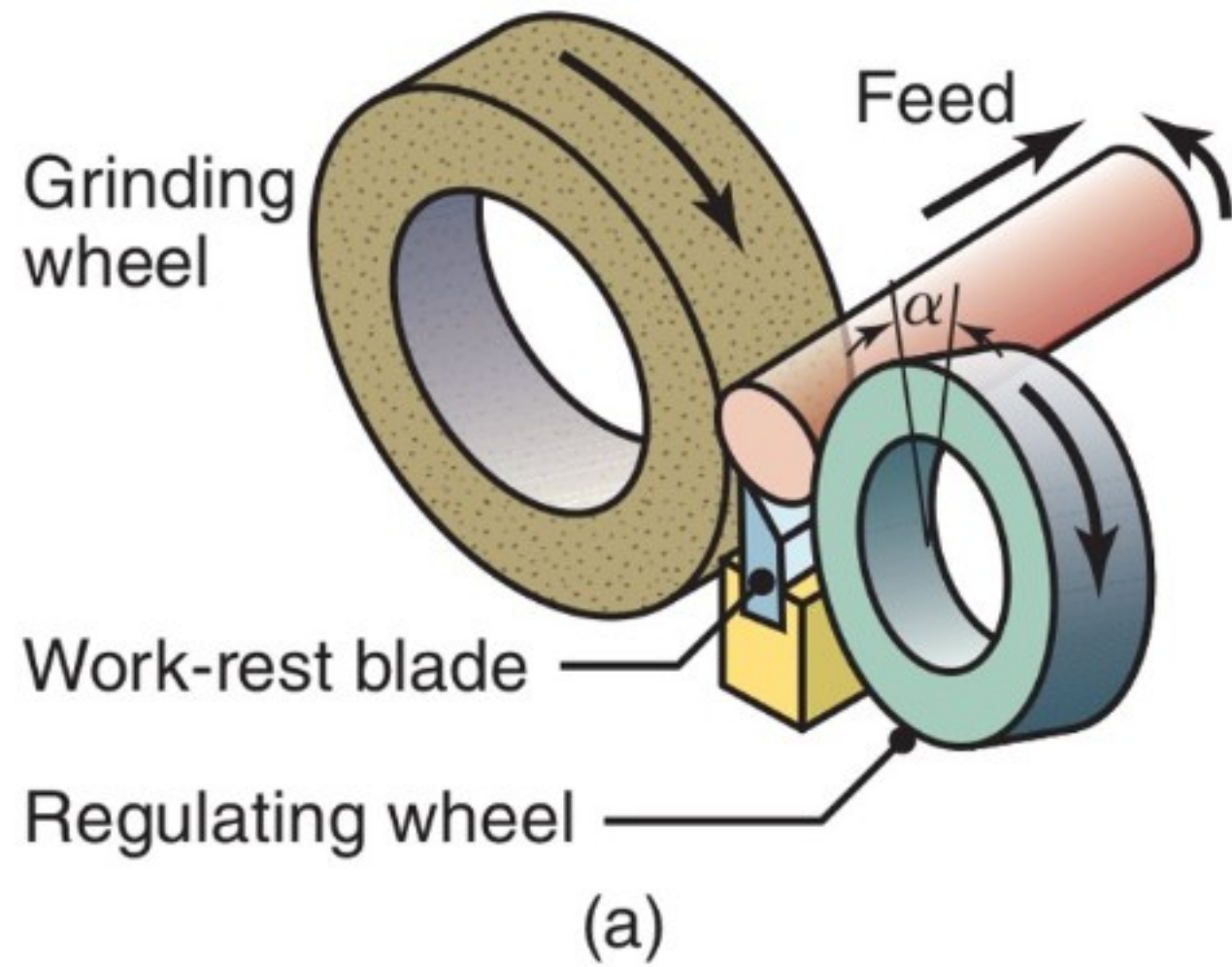
Deburring



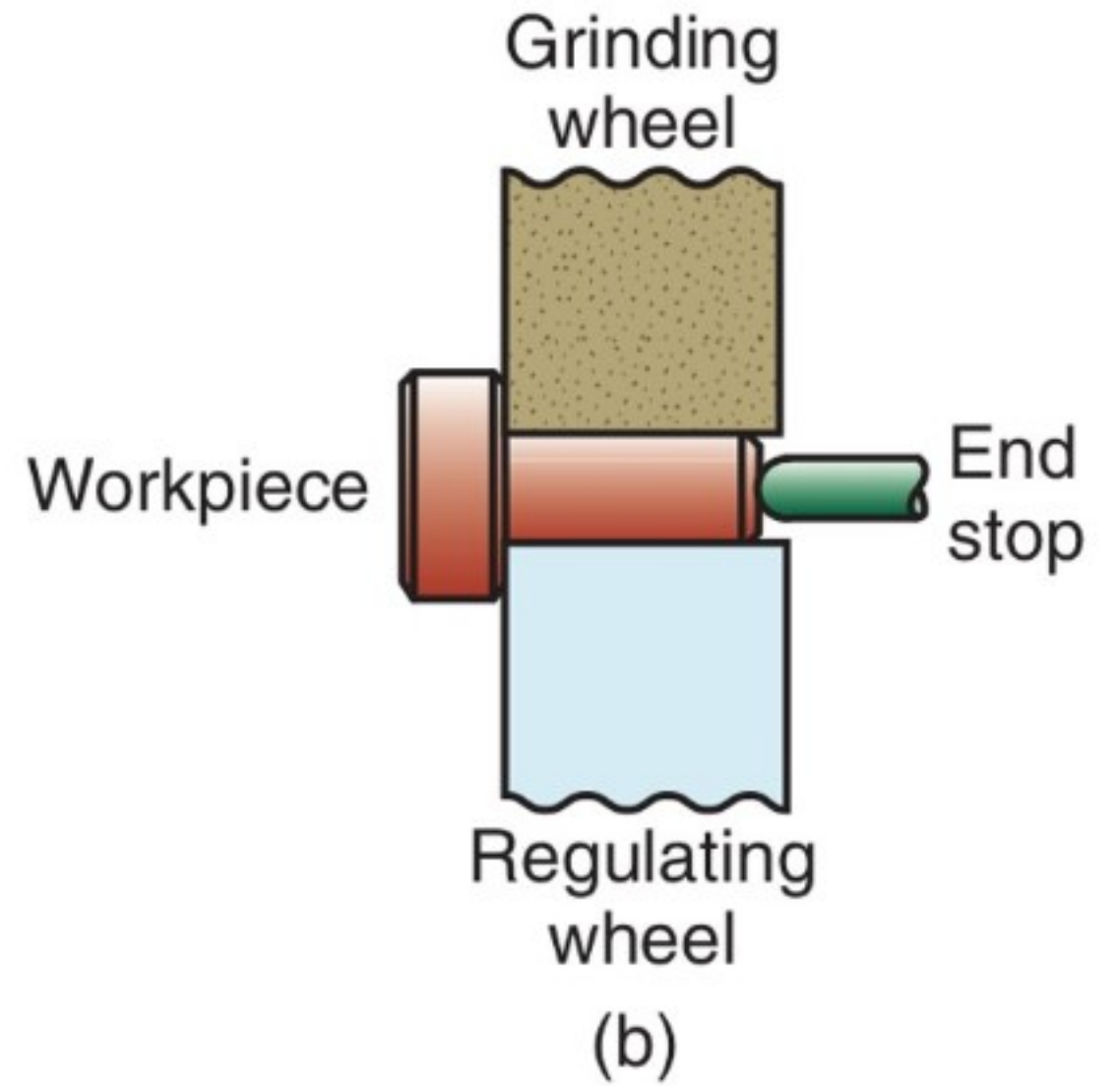


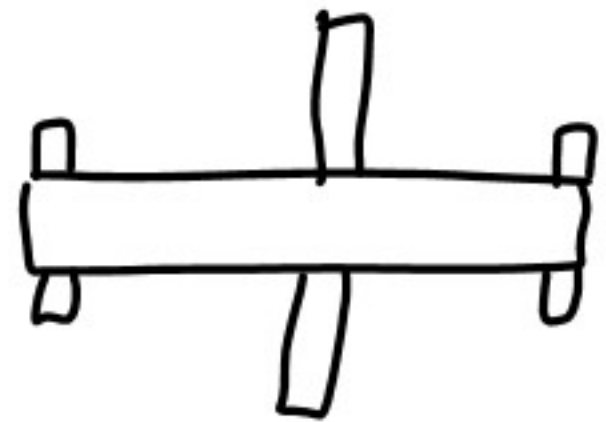
# Centerless Grinding

Through-feed grinding

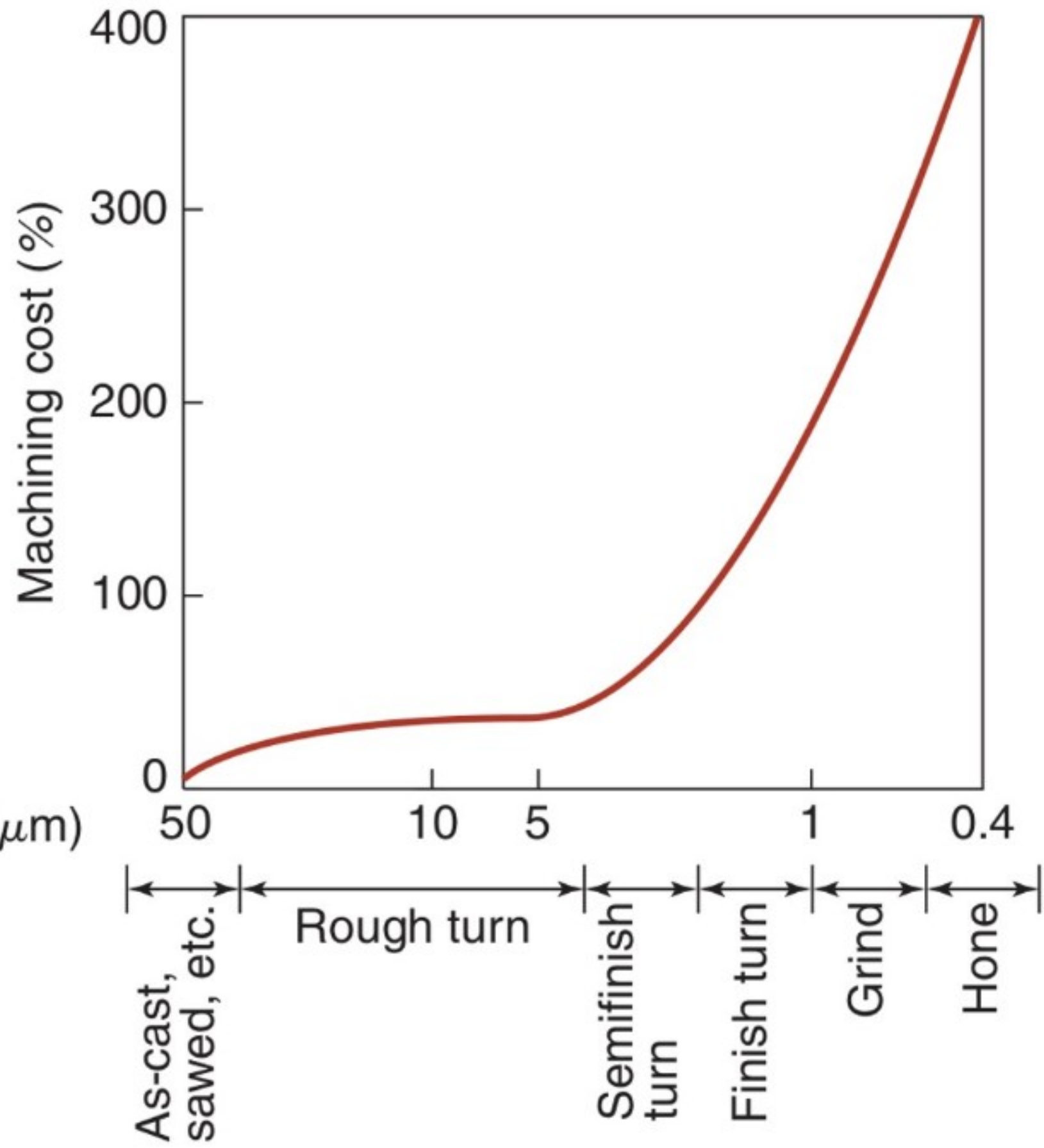


Plunge grinding





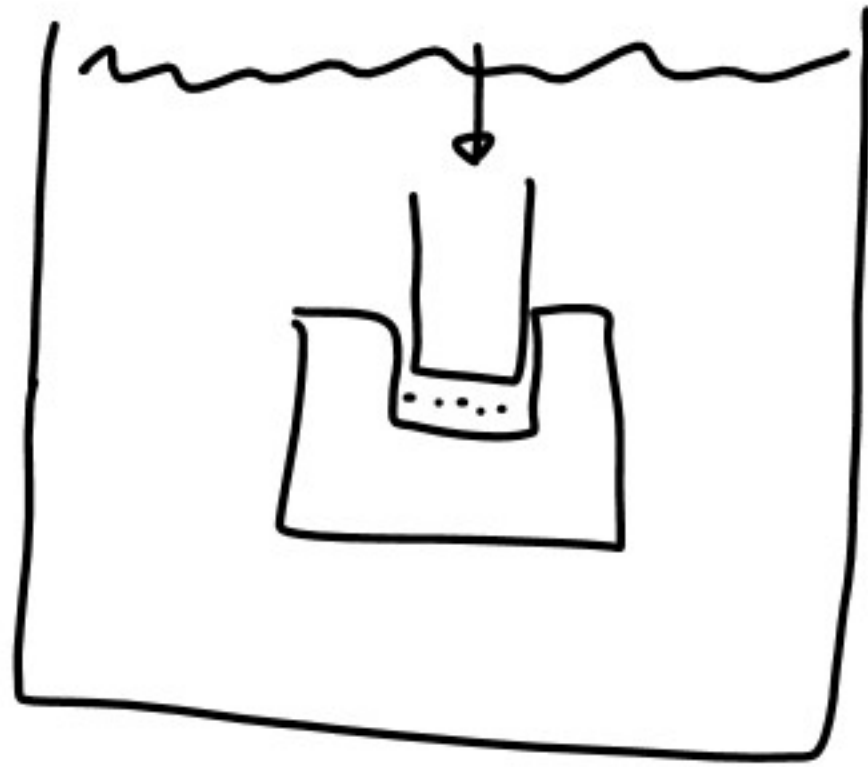
Surface  
finish,  $R_a$  ( $\mu\text{m}$ )



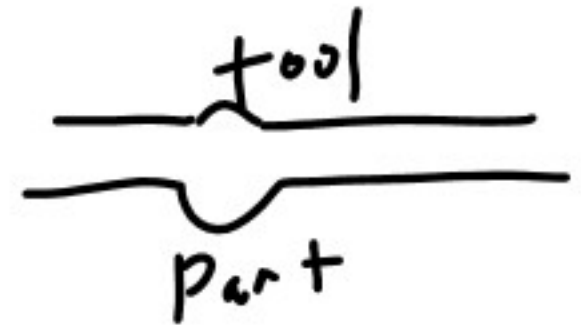


# Electrical Discharge Machining

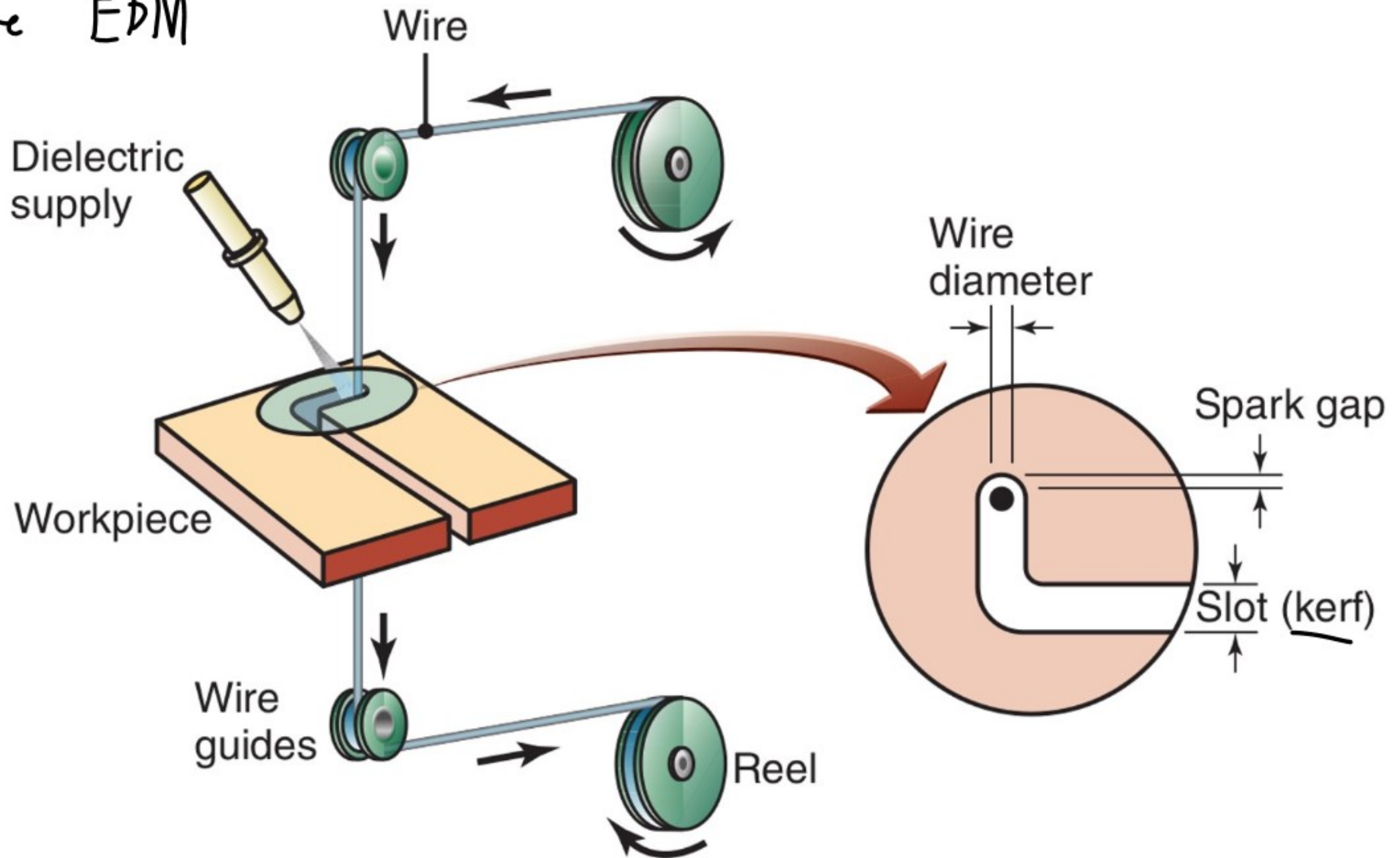
EDM



Sinker EDM



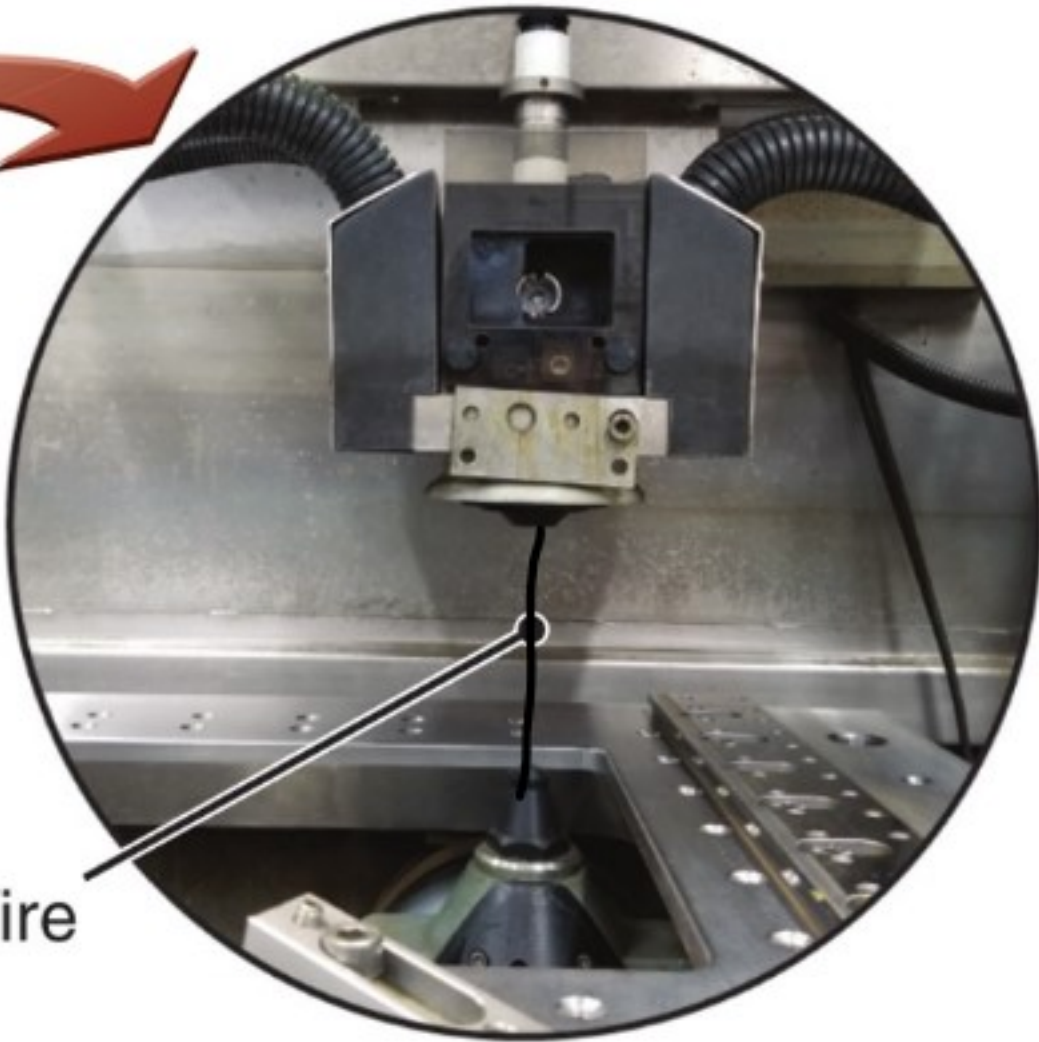
# Wire EDM



Wire spool



Wire









- ▶ Surface Grinding (<https://youtu.be/X2h-YgvSNx8?t=2067>)
- ▶ Centerless Grinding (<https://www.instagram.com/p/CWL2TTBJXSw/>)
- ▶ Broaching (<https://www.tiktok.com/@epgiou4/video/7144735884028693806>)
- ▶ Surface Plate Lapping ([https://youtu.be/k82T0T\\_4UHg?t=2151](https://youtu.be/k82T0T_4UHg?t=2151))
- ▶ Sand Casting Molds (<https://youtu.be/7nlJjy4Dekw?t=492>)
- ▶ Sand Casting Pouring (<https://youtu.be/nylHKJaldEI?t=800>)